VIDEO PRODUCTION: IT'S FOR FUN AND PUBLIC SERVICE

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BACKGROUND

The Sun West School Division has been developing learning pathways for grade 7-9 students to explore a variety of practical and applied arts (PAA) subjects. For teachers and students across the division, the PAA pathways course provides content across a wide breadth of practical and applied arts curricula, appealing to many different interests and areas of study.

Currently, the PAA pathways course does not include a video production pathway. Communication through media is an important subject within the PAA curricula, and Sun West administration recognizes that the study of video production incorporates key 21st Century learning processes and skills. Many teachers and students have a limited understanding of the processes of video production, and limited experience developing the skills associated with video production.

Providing an instructional pathway to teachers and students could help them integrate video production skills into their teaching and learning repertoire and find applications for the processes of video production. Providing instructional content to teachers (and their students) can help alleviate concerns about technical know-how, costs, or assessment products. It can expand their performance product options and lead to more ways to show creative learning and teaching.

THE NEED FOR INSTRUCTION

Media production has a place within K-12 instruction. What used to be a costly and technically difficult process is much more manageable and forgiving. With smartphones, many children, especially teens, have the tools of video capture and editing available in their hands. Video production can provide students with skills to get involved with cultural and social participation, “We look to digital and media literacy to help us more deeply engage with ideas and information to make decisions and participate in cultural life” (Hobbs, 2010). Students can use video production and media production to develop their own voice and their own content, “Participatory culture is emerging as the culture absorbs and responds to the explosion of new media technologies which make it possible for average consumers to archive, annotate, appropriate, and recirculate media content in powerful new ways.” (Jenkins, 2007). Friesem (2016) makes the case that media production provides a learning process for developing empathy as production often involves teamwork, requires an audience, and requires openness with content creation.

Providing teachers with instructional material on how to produce video content effectively and creatively is necessary. We can not assume that because students have the tools available to them, they automatically know how to use the tools for effective citizenship, entertainment, and education. Furthermore, we can not expect that all teachers have the technical knowledge to teach these students the processes of video production. Instruction can provide both the teacher and the student with the technical skills and the details of the production process. Within this process, students can be encouraged to develop their own empathetic voice, content, and style.

GOAL STATEMENT

The Sun West Distance Learning Centre (DLC) video production pathway will give teachers and students in grades 7-9 the opportunity to explore the process of developing creative, informative, and entertaining video products. Teachers will be provided with instruction they can share with students to work through the various roles, tasks, and challenges of video production. Students will gain knowledge of the production process. They will have opportunities to explore the variety of literacy skills that comes with video production: Writing and producing for visual and auditory media, and critically analyzing media content. They will also learn technical skills of camera work, editing, sound, graphics, production, and direction.

KEEPING THE END IN MIND

Students will explore options of developing public service announcements (PSAs) for a final product. The PSA gives students a chance to speak to issues that they find important. Giving students the opportunity to share their own thoughts on topics can be a powerful motivator, and can help students learn more about themselves as well as giving teachers the opportunity to hear from students on meaningful topics. As MacDowell (2017) points out, students, especially girls, should have opportunity to develop their own narrative, "if we want to learn more about girls we need to listen to their stories". Video is a powerful medium, and video production should allow students to share personal experience and seek to empower them. The public service announcement (PSA) is a short form video project that can have a strong impact. This will be an effective ending project for the module.

WE LOOK TO DIGITAL AND MEDIA LITERACY TO HELP US MORE DEEPLY ENGAGE WITH IDEAS AND INFORMATION TO MAKE DECISIONS AND PARTICIPATE IN CULTURAL LIFE (HOBBS, 2010)

PART 1:
NEEDS ANALYSIS

WANTS & NEEDS

The wants and needs of stakeholders provide a framework to explore instructional considerations. The needs set the direction, and the wants allow for detours, scenic routes and interesting stops along the way. These wants and needs were collected through interviews with Arlene Low - a Sun West Distance Learning Centre administrator, and two Biggar Central School 2000 students (one in grade 8 and one in grade 10).

Table 1

Stakeholder Wants and Needs

STAKEHOLDER	WANTS	NEEDS
Client • Sun West School Division Distance Learning Centre Administration.	• Regular renewal of PAA pathways course - adding pathways on a regular basis or adjusting built pathway. • Include sections on sound and lighting. • Module built to develop student interest, or to be responsive to student interest.	• Video production module(s) to be included in the PAA pathways course. • 20-25 hours of instruction. • Align to Saskatchewan curriculum. • Develop for blended/direct instruction. • Adaptable for online instruction. • Ensure the safety of students in online environments. • Have students develop high-quality projects with a purpose. • Support teachers to expand classroom learning.

End User
• Sun West School Division grade 7-9 students (and teachers).
	• Learn about different styles for different types of videos.
	• Learn different editing strategies.
	• Create personal projects - not always for presentation.
	• Access to gear to explore more professional aspects of video production.
	• Opportunity to work with sound equipment, lighting, cameras, editing equipment and proper software.
		• Learn elements of video production including:
		  ◦ Writing scripts and story preparation.
		  ◦ Basic equipment and software.
		  ◦ Basic videography.
		  ◦ Editing process.
		  ◦ Employment opportunties.
		• Ensure interest in the topic of video production.

ASSUMPTIONS

Table 2

Instructional Design Project Assumptions

ASSUMPTION	REASONING
Who are the stakeholders? • The administrative team from the Sun West Distance Learning Centre. • The teachers at Sun West Schools. • The grade 7-9 students in-class at Sun West Schools, and online at the Distance Learning Centre.	The administrative team are responsible for the end product. They have determined the pedagogy, philosophy of education and instructional strategies that form the basis of education at the Distance Learning Centre. They approve the content and methods incorporated in the courses being offered. The input of teachers is important as they will be integrating the concepts in their classrooms. The teachers must feel they can successfully add this content to their instruction. Student interest, their goals, and their needs have an influence on what content or products are considered in the pathways course.
Why has the client hired you? I am a familiar face developing the skills of instructional design. I can act as a video production subject matter expert, and I can self-test content in my grade 7-9 technology classrooms.	Meetings in 2020 led to the initial conversations about a video production PAA pathways module. The DLC Instructional Designer shares a role with a fellow ETAD student with whom I have worked on course projects. Conversations between the two likely reinitiated movement on this project.
Who will determine success or failure? This will be determined by the administration of the Sun West DLC. Feedback from end-users can provide important information on successes and failures that could lead to revision.	The Sun West Distance Learning Centre administration has user access data. The number of students (and teachers) accessing and completing the video production pathway could be a determining factor of success or failure. Validation of the instructional material following prototype development or initial rollout of the pathway would provide direction for revision of weaker aspects of instruction, and removal of unnecessary or unwanted content and skills foci.
How will you deal with conflict between the client and end user needs? I expect that a dialog can be developed around differences between client and end user needs. I can make a case for inclusion where appropriate.	The pathway will be added to an existing structure, and with expected instructional strategies. Communication with the client, and communication from students and teachers on course material and structure should be constructive and lead to better development of the instructional product. Communicating feedback or conflicting needs to the client will be necessary to ensure consideration. Sound pedagogy is important to the client.

ASSUMPTIONS (CONT.)

Table 2 (cont.)

Instructional Design Project Assumptions

ASSUMPTION	REASONING
What instructional strategies are expected to be included in the final product? The online students will be provided with online asynchronous instruction. Teachers in Sun West schools can provide content as blended instruction or direct instruction. Instructivist strategies will be incorporated to teach technical skills. However, video editing products will require connectivist and constructivist strategies.	Instructivist approaches align with the instructional strategy of "I do, we do, you do" which is prevalent in Sun West School Division professional development. ('I do' – teacher provides modelling. 'We do' – a guided example is worked through. 'You do' – the student attempts on their own.) For developing technical skills, the 'I do, we do, you do' model is effective. As students work toward video production products, a shift to constructivist and connectivist learning is beneficial. Video productions have a purpose, connect to interest areas, and lead towards a performance product to share with others. Furthermore, to personalize learning, as students explore advanced activities they should explore and connect with other resources and methods that may extend beyond resources explicitly provided.

INSTRUCTIVIST LEARNING

Well-designed instructivist learning objectives define the competencies (or capably performed skills) that your learners should possess after they receive instruction.
(Larson & Lockee, 2014, p. 122)

CONSTRUCTIVIST LEARNING

constructivists prefer to retain their focus on higher-order goals and just make sure the necessary scaffolding is there for support when, and if, learners require it.
(Driscoll, 2005, p. 393)

CONNECTIVIST LEARNING

When knowledge, however, is needed, but not known, the ability to plug into sources to meet the requirements becomes a vital skill.
(Siemens, 2005)

LEARNER ANALYSIS

The video production module is intended for grade 7-9 students in Sun West School Division - a rural school division located in the central west region of Saskatchewan. The students range in age from 12-15 years old. The learner analysis is based on data from Biggar Central School, a school in the northern reaches of Sun West School Division.

COGNITIVE

57% of grade 8-9 students have student support plans, involving support for attention, learning challenges and behaviour issues.

Implications for Learning

- Length of learning products will increase as students develop comfort with skills and equpment. Focus on sense of completion, accomplishment, and quality.
- Minimize technology requirements. Let students use known devices to ensure learning focus is on production elements like camera shots, sound, and dialogue.
- Provide checklists, limit video length to ensure completion by students with attention concerns.

MOTIVATION

Students show low motivation for education and future goals. Currently struggle with high levels of anxiety and depression. (The Learning Bar, 2020)

Implications for Learning

- Provide framework to allow for exploration of personal interests whether that is topics, modes, styles, or mimicry of videos with which the student has a connection.
- Include gamification model for extrinsic motivation.
  - Provide digital badges for skill development.
- Alleviate fears of performance.
  - Highlight roles in production process that do not require performance.
  - Start with low stakes / minimal on-screen products (audio voiceover), group with others more comfortable to act as onscreen talent.

PHYSIOLOGICAL

The majority of students maintain their full faculties. 1-2 students require adaptations for motor or coordination concerns. Students at this age can be obtuse about safety and appropriate content.

Implications for Learning

- Include group work, where applicable, to ensure students with motor concerns can work with others for physical tasks like camera operation.
- Encourage use of devices that facilitate mobility, and provide load-bearing devices for recording.
  - drones
  - dollies and trucks
  - tripods
- Instruction will include inclusivity, consideration of audience, and digital security and safety concerns.

SOCIAL

Video production can be a collaborative process, group work should be used where possible. Learning will occur with regular cohorts in Sun West Schools.

Implications for Learning

- There are many roles available within a video production process. Include instruction for both individual project completion and group project completion.
- Teachers will have to group students according to their situations.

CONTEXT ANALYSIS

PHYSICAL CONTEXT

Instructional Content Access
- Moodle - Learning management system used by the Sun West DLC.
- Website - Location for instructional content and assessments.

Computer Hardware (varies from school to school)
- School provided computers.
- iPads.
- Personal Devices (Android and Apple).

Software
- Minimum: Adobe Rush or iMovie for video editing.
- Recommended: Adobe Rush or DaVinci Resolve.
- Microsoft Word and FadeIn screenwriting software for writing.

Equipment
- Minimum: Cellular phone camera.
- Recommended: DSLR or point and shoot with manual settings.
- Tripods with fluid heads.
- Lighting kits.
- Green screen.

Implications for Design

- Software is available to students, but appropriate hardware and equipment is limited.
- Encourage and support students to shoot and edit on personal devices.
- Provide teachers a list of essential and optional equipment for a professional production.
- Develop a list of equipment for a mobile production kit.
- Provide resources or instructions on creating audio or video recording spaces on a budget.

CURRICULUM

COMMUNICATIONS MEDIA

Outcomes
- Communication through media
- Legal and Ethical Issues
- Production Stages
- Career Opportunities
- Pre-production Process
- Video Production A
- Audio Production A
- Visual Effects
- Audio Effects and Music

INFORMATION PROCESSING

Outcomes
- Video Production A
- Video Production B

MEDIA STUDIES

- Contains learning objectives for viewing and creating media.

ENGLISH LANGUAGE ARTS

Contexts

Grade 7
- Doing our part for planet earth.
- Giving our personal best.

Grade 8
- Becoming myself.
- Is it fair? The search for justice.

Grade 9
- Do the right thing!
- Surviving and conquering.
- Love, loyalty, and relationships.

(Communication Media 10, 20, 30., 2010; English Language Arts 7., 2008; English Language Arts 8., 2008; English Language Arts 9., 2008; Information Processing 10, 20, 30, 2020; Media Studies 20, 1998)

Implications for Design

- The curricula provide a structure for dividing content into small chunks for focused skill development and for larger-scale projects.
- There are too many curricular outcomes for 20-25 hours of instructional material.
- Focus on the process toward developing a quality end product. Ensure application of skills provide students with the opportunity to connect with interests and opportunities to develop their own voice.

CONTEXT ANALYSIS

USE CONTEXT

The video production module is for grade 7-9 practical and applied arts teachers (and therefore students) in Sun West School Division, and any grade 7-9 Distance Learning Centre students.

- Teachers can provide the course to their students through Moodle, and the students can work independently through the module.
- Teachers can teach the content directly to their class.
- DLC students will be learning in an online-asynchronous model.

Implications for Design

- Instruction will be delivered in one mode but has potential different end uses (online independent learning, and blended/in-class learning).
- Most students will be accessing content independently, with teachers (online and in-class) acting as facilitators.
- Ensure there are aspects of direct instruction, guided practice, and individual or group practice.
- The tasks will have to be designed for limited equipment.
- The tasks need to be accessible for all learners, but expansive enough that advanced learners can provide a high-quality complex product.
- The module will be introductory for most students, tasks will have to be broken down with instruction to help scaffold skill development toward independent work.

SOCIO-POLITICAL DYNAMICS

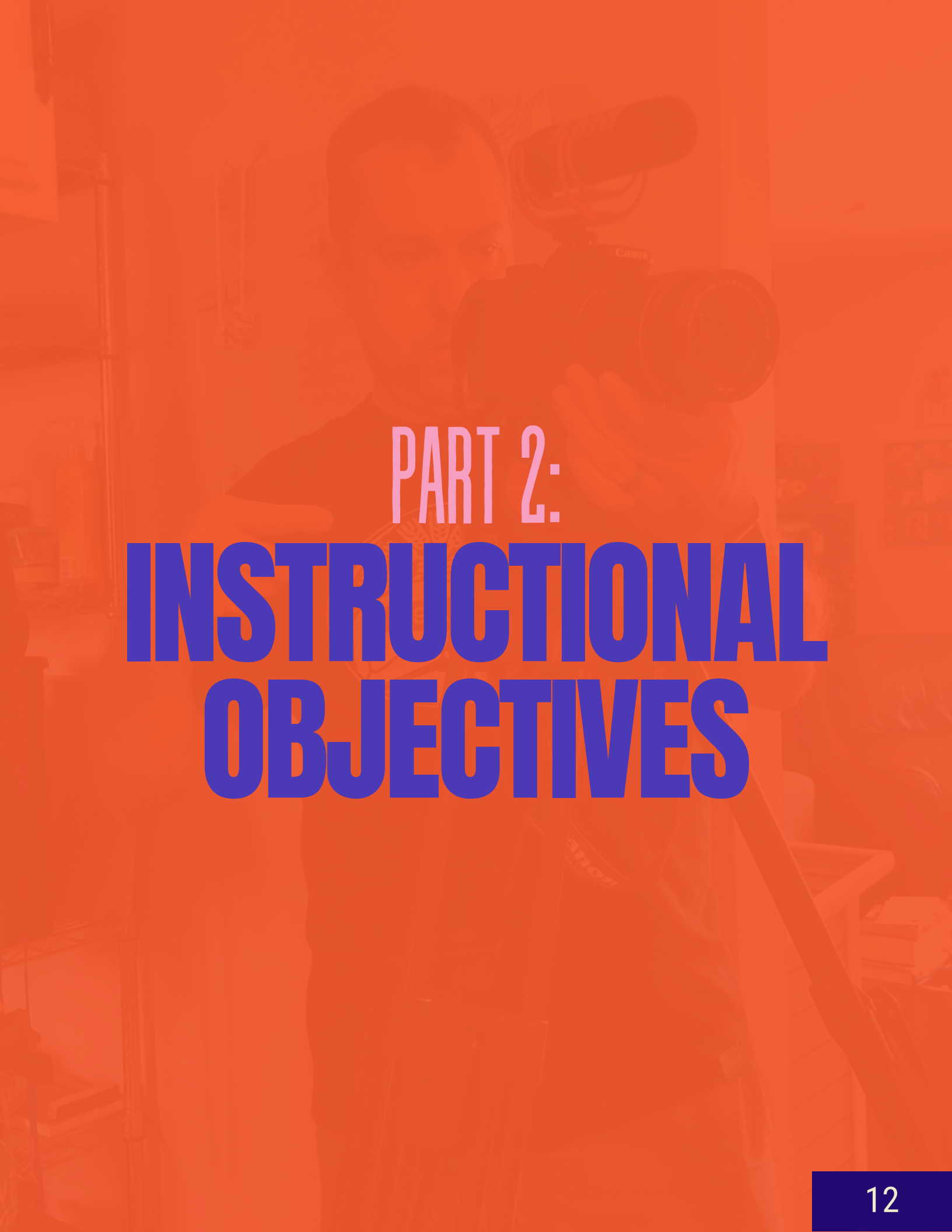
Biggar Central School is representative of most schools within Sun West School Division

- K-12 school, with students from small town and surrounding farms and acreages.
- Gender: relatively even mix of male and female, with some students who identify otherwise.
- Primary Industries: Agriculture, education, health care.
- Students are primary caucasian, with a growing percentage of students of various cultural backgrounds: Philippines, India, Ukraine, China, Kyrgyzstan, and Korea.
- Small population of students who identify as First Nation or Metis.

Sun West School Division is committed to providing a 21st century education with a focus on student growth around culture, character, skills and knowledge, while encouraging a transfer of responsibility for learning from teacher to student.

Implications for Design

- Instructional content and products should include examples representative of different cultures.
- Videos can be created in students' primary spoken languages.
- Using technology aids the development of other 21st century skills. The products should highlight positive citizenship and give students the opportunity to share their voice for positive change within their school and community cultures.
- The "I do, we do, you do" transfer of responsibility works well with the online and blended learning structures the PAA pathway course incorporates.



PART 2:
INSTRUCTIONAL OBJECTIVES

CONTENT ANALYSIS

INSTRUCTIONAL GOAL:

The learner will apply the knowledge and skills of video production and development in their practice of making video products.

This section explores a mid-module instructional pathway that will allow students to apply the technical skills of the video production process with a full production project. The focus of the mid-module production project will be camera shots and movement but it will include elements of pre-production, production, and post-production. Experience with this section and feedback from this process will prepare the students for a more complex product as a culminating project.

TERMINAL GOAL FOR MID-MODULE ASSESSMENT

Working as individuals or in small teams, plan, produce, and edit a video that includes all the shot types and camera movements covered in the lesson materials.

LEARNING GOALS

Table 3

Learning Goals and Associated Learning Outcomes

LEARNING GOAL	TYPE OF LEARNING OUTCOME
• The learner will be able to reproduce shot types learned through related lessons or study.	• Intellectual skills – discrimination: producing their own examples of shot types to represent the model / exemplar.
• The learner will incorporate positive and empowering messages in their video production. • The learner will apply creativity within their video production process.	• Intellectual skills – discrimination: producing their own examples of shot types to represent the model / exemplar.
PRE-PRODUCTION	

• The learner will investigate and accomplish the tasks of pre-production and apply skills in a pre-production process.
  ◦ Prepare a treatment.
  ◦ Prepare a shot list or script.
  ◦ Prepare a storyboard.
  ◦ Prepare equipment for a shoot.
• The learner will determine roles for onscreen talent or assistants aiding with the shoot. (or the learner will coordinate on-site production while exploring roles of director and producer.)
	• Cognitive strategy – pre-planning to ensure elements and equipment are ready and will help students complete tasks.
	• Attitude – providing helpful direction to ensure positive group dynamics and efficient work.

LEARNING GOALS (cont.)

Table 3 (cont.)

Learning Goals and Associated Learning Outcomes

LEARNING GOAL	TYPE OF LEARNING OUTCOME
PRODUCTION	

• The learner will use the pre-production documents during production to organize their workflow.
• The learner will demonstrate how to effectively use the features of their camera to create a product:
  ◦ zoom
  ◦ focus
  ◦ exposure
  ◦ framing
  ◦ audio
• The learner will utilize appropriate equipment to stabilize shots (e.g., tripod, monopod).
• The learner will demonstrate how camera placement affects shot types' look and feel.
	• Motor skill – operation of camera and equipment.
	• Cognitive strategies – affective - on-site determination of best locations, angles, and directions for shots.
	• Intellectual skills – rules – using the exemplars as guides for shot types

• The learner will direct onscreen talent or assistants aiding with shoot.	• Cognitive strategies – affective – determining effective uses of team members and best placements onscreen. • Attitude – providing helpful direction to ensure positive group dynamics and efficient work.
POST-PRODUCTION	
• The learner will demonstrate skills in editing to create a variety of video products. • The learner will describe and develop their own workflow to use a video editing program to create a variety of video products.	• Cognitive strategy – using editing to follow plan and organize/tidy clips to ensure flow, and finished quality product.

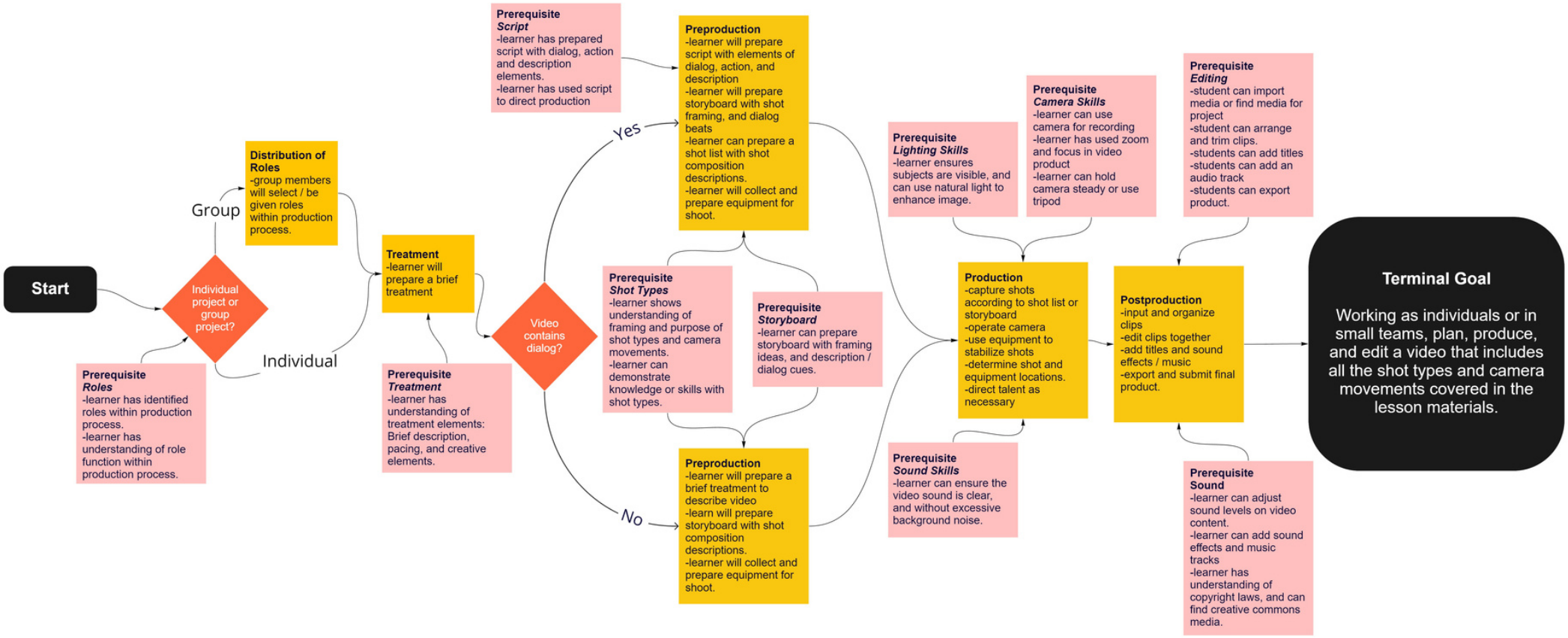
FROM NOW ON, THINK IN SHOTS. SHOOT DELIBERATELY. EVERY TIME YOU POINT THE CAMERA, WHO ARE YOU POINTING IT AT? WHAT ARE THEY DOING? IS IT INTERESTING? (STOCKMAN, 2011, P. 9)

PROCEDURAL CONCEPT MAP

Scan QR code or click here to view concept map on Miro

Figure 1

Flowchart of Procedural Concept Map Towards Mid-Module Project Task



This procedural pathway walks through the process of video production from pre-production to production, to post-production. The path to the terminal goal includes points of prerequisite understanding and skills. Assessing this goal provides students with the opportunity to apply skills learned through the early elements of the module, and through the hands-on use of the tools of video production.

LEARNING OBJECTIVES

To narrow the focus of the objectives, the learning objectives will focus on grade 9 students. Elements of the Saskatchewan curriculum are reflected in the objectives and the expectations of the students.

OBJECTIVE #1

Before production, the grade 9 students must prepare pre-production elements of a storyboard, and a shot list or script, that include all the shot types and camera movements (with descriptions) from the provided materials along with the story/plan for their video product.

OBJECTIVE #2

The grade 9 students will shoot and reshoot footage with their camera of choice and a tripod (if available), to capture each shot included in their pre-production documents, using proper frame composition, focus, and movement as compared to the exemplars.

OBJECTIVE #3

The grade 9 students will edit multiple media clips together, into a cohesive video product that includes evidence of each shot type and camera movement, while reflecting the direction of their pre-production ideas.

Assessment Design

The summative assessment related to this terminal goal will be a performance task. The task is a video production that can be shared with the teacher. The task will be a video of less than five minutes (preferably around 3 minutes) that contains the required shots from the shot types and camera movement instructional materials. The video will need to include title graphics and a music track to guide timing. Students will need to provide their pre-production documents - shot list or script with shot descriptions, a storyboard, and a treatment. Time codes showing where each shot type was included in the video (either added to the video description, or by providing a document / paper copy) will also be expected.

- Pre-production preparation to include treatment, storyboard, and shot list to help learner develop a cohesive product.
- Shoot footage with proper frame composition and movement.
- Edit the video clips together to complete a final product.
- Edit to match timing to an audio track of a 2-3 minute song (creative commons license).
- Increased challenge: Develop creative story and replace shot list with script.
- Increased challenge: Include dialogue and edit according to story.
- Increased challenge: Successfully work in a group by assigning roles and distributing tasks.
- Complete project in approximately 4-5 hours.

Assessment Design (cont.)

The primary purpose of this video production is for the learners to demonstrate how well they can capture the various shot types and camera movements. Therefore, most of the assessment is weighted towards objective #2: the camera work. To ensure a successful product, the learner must complete and show evidence of preparation which is covered in objective #1. The final product comes together through the editing process, which is objective #3.

Grade 7-9 students in Sun West School Division are graded on a four-point scale. Students assessed at a level 4 provide assessments that exceed expectations. In this project, exceeding expectations would involve students extending their creativity through storytelling and would require that they provide a script element for the project.

Table 4

Assignment Instrument Blueprint

OBJECTIVES	FORMAT	NUMBER OF ITEMS	CRITERION	PROPORTION
Objective 1	Documents • treatment • shot-list or script • storyboard • production plan	2-3	Students will create a shot list or script, and a storyboard with descriptions of shot types derived from lesson content. The shot types will be paraphrased and 80% of descriptions must be accurate.	25%
Objective 2	Performance product (video) and pre-production documents	3-4	Students will capture the framing, focus, and movement qualities of each shot type covered in the materials. 80% of shots must represent example shot types. Acceptable variance from the examples will be determined subjectively by the teacher.	50%
Objective 3	Performance Product (video) and pre-production	2-3	Video product must include 90% of expected shot types with titles added to show inclusion of each shot type. Video length must be under 5 minutes, and timing of shots should sync with the music or fit with story elements. Time code of inclusion for each type of shot in shot list / script (identify one point of inclusion for each shot)	25%

PART 3:
DEVELOPMENT

PLANNING STRATEGIES

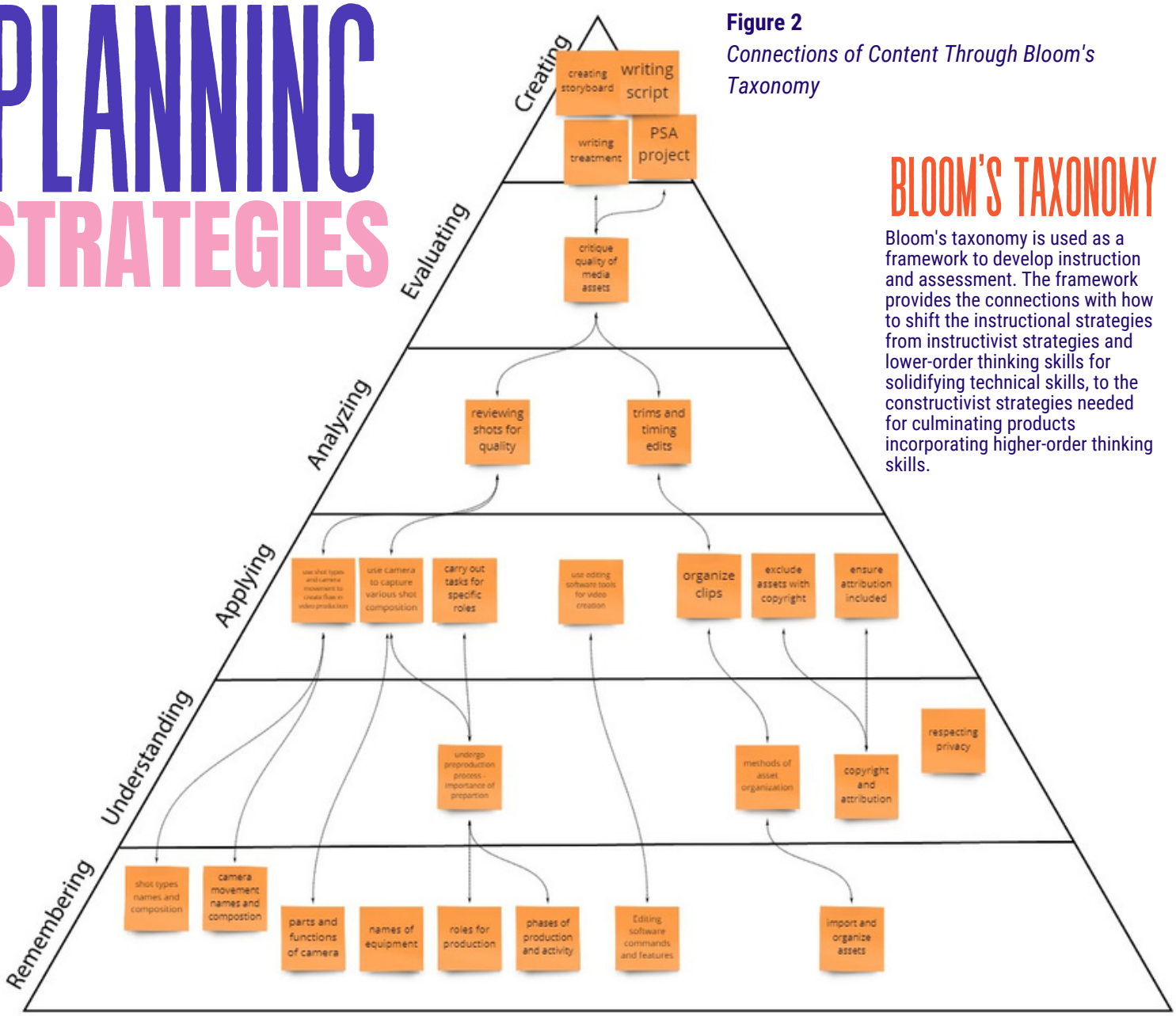


Figure 2

Connections of Content Through Bloom's Taxonomy

BLOOM'S TAXONOMY

Bloom's taxonomy is used as a framework to develop instruction and assessment. The framework provides the connections with how to shift the instructional strategies from instructivist strategies and lower-order thinking skills for solidifying technical skills, to the constructivist strategies needed for culminating products incorporating higher-order thinking skills.

SUPPLANTIVE STRATEGIES

Use direct instruction to provide an introduction to the process of video production. Students need an understanding of terms, definitions, features of software, devices and pre-production writing processes as well as practice with devices and software.

- Camera functions
- Shot framing and movement
- Video editing software
- Other equipment
- Scriptwriting
- Treatment preparation
- Shot list and storyboard creation

Use skill badges and skill checks to gamify and mark progress.

GENERATIVE STRATEGIES

The major culminating tasks of Public Service Announcement and Shot Type Showcase require the student to engage with the entire video production pathway include planning, organization, and developing a schedule.

- The tasks allow students control of their intent for their projects.
- Students have direction over the content and the style with which to create the video.
- The teacher facilitates and directs as required.
- Checkpoints in the process will encourage students to engage with parts of the pathway, and ensure they are progressing in their project.
- The final task has a community connection and allows for public performance.

PLANNING STRATEGIES (CONT.)

ORGANIZATIONAL STRATEGIES

Clustering of content. The process of video production can be categorized into 3 main groups: Pre-production, production and post-production. There is a flow between the categories, as one leads into the other, but the skills inherent in each category are quite distinct.

Students will earn skill badges with completion of various lessons and tasks. The tasks will be organized together. They will be sorted by production category, and by technology or skill required. For example, pre-production involves writing skills, production involves camera skills, and post-production involves video editing software skills. Skill development lessons will be linked through the badges. Ultimately the badges in the console would change status to "in progress" when a student has accessed the skill lesson and task, and "complete" when assessed by the teacher. To “unlock” projects students will have to show a level of mastery of skills in parts of the process.

DELIVERY STRATEGIES

The Distance Learning Centre uses Moodle as a learning management system. So the instructional product will be converted to Moodle for online learning. However, in the interview with the client, they were open to development for other platforms like a webpage. A website is the delivery method I have chosen. The website will need to be built with adaptive design in mind, so that students can access the content on various size devices. The content will be developed for 1920x1080 (high definition wide screen displays) to start. The pages will include text content with dynamic links to content on other pages and external resources. Most lessons will have a video introduction that will tie together the text on the pages. There will be links to pdf (or Microsoft Word) documents that the students can download as resources and assignment files.

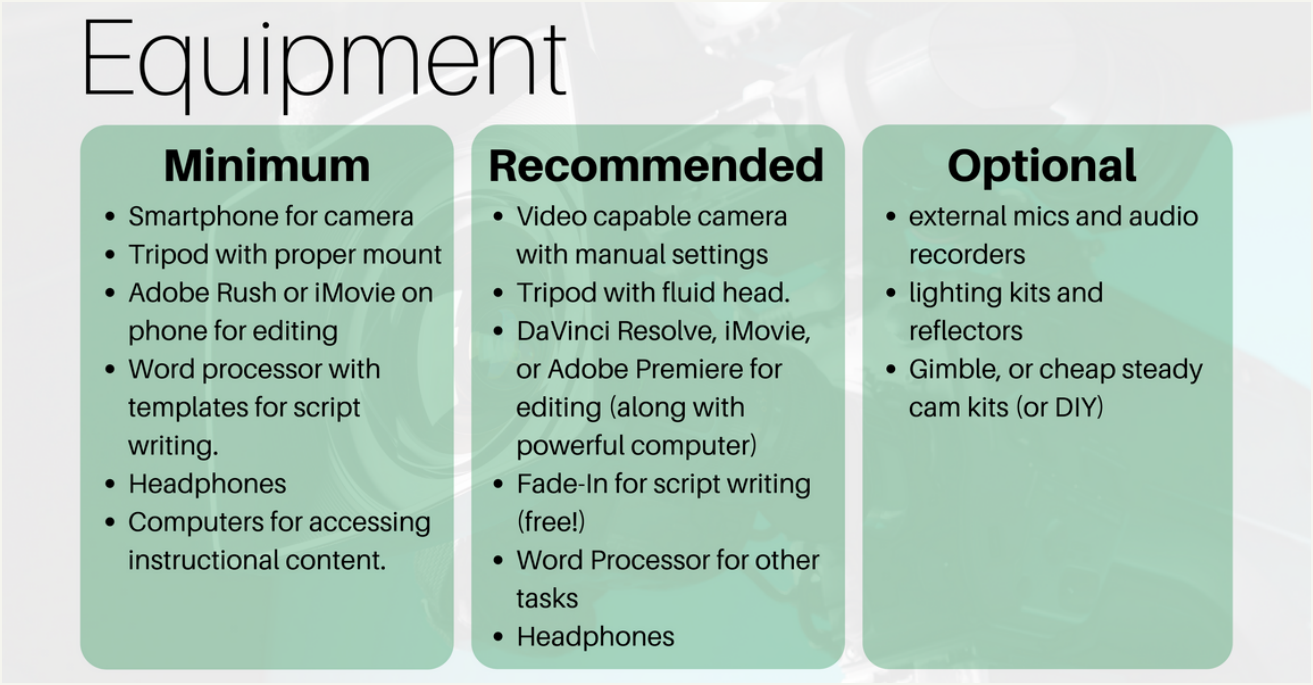
MANAGEMENT STRATEGIES

Consideration of necessary technology. The video production pathway requires technology to carry out the instruction, and to allow learners to practice and develop skills. Many cameras are capable of shooting video, and many computers and tablet devices are capable of running capable video editing software. This has made video production much more accessible, however each camera type (DSLR, point and shoot, camera phone, iPad or tablet) has different levels of complexity which affect instruction. The same can be said about video editing software. The other technology consideration is cost and availability.

To consider the most common use situation, instruction will focus on using personal devices as cameras, and since Sun West School Division has licensing for Adobe Products, Adobe Rush will be the video editing software of choice. Schools that have more powerful computer equipment available that can handle more powerful editing software can use Premiere Pro (part of Adobe license), or DaVinci Resolve which is an excellent free video editing program.

Figure 3

Equipment Recommendations for Video Production Module



COGNITIVE THEORY OF MULTIMEDIA LEARNING

Meyer's cognitive theory of multimedia learning is a design theory that connects well with the topic of media production and provides helpful direction with which to consider instructional design elements. Each principle has been connected with strategies considered in the development of the instruction and prototype.

Table 5

Cognitive Theory of Multimedia Learning Principles and Included Strategies

PRINCIPLE	STRATEGIES
PRINCIPLES TO REDUCE EXTRANEOUS LOAD	
Coherence Principle - Focus on essential information.	Skill development lessons focus on practice. The goal is to get the equipment into the student's hands. Keep text minimal to allow students to move to skill practice and feedback from teacher.
Signaling Principle – Highlight essential information.	Key terms included with lessons and video provided for each lesson to point out the learning outcomes and elements. Outcomes and project goals provided for assignments. Checklists provided for complex processes in assignments.
Redundancy Principle – Use one media form to support another.	Text provided for lessons and video summary for most lessons. Some resources (particularly Studio Binder resources) are in video and text format.
Spatial Contiguity Principle – Text close to a visual.	Bounding elements (boxes) or tables enclose tasks with their title, descriptions, or media. Links for lessons are close to descriptions of what needs to be completed.
Temporal Contiguity Principle – Audio narration corresponds to what is displayed.	Videos tutorials with walkthroughs will follow this principle. The walkthrough steps will be edited to ensure the instructions match with the steps shown visually.

Note Principles of the Cognitive Theory of Multimedia Learning are adapted from Larson and Lockee (2014)

Table 5 (cont.)

Cognitive Theory of Multimedia Learning Principles and Included Strategies

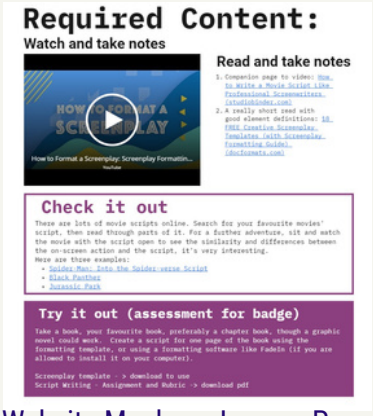
PRINCIPLE	STRATEGIES
PRINCIPLES TO MANAGE INTRINSIC LOAD	
Segmenting Principle - Chunk instruction.	Skill development lessons are segmented into sections like pre-production, production, and post-production. Within those sections, the lessons are then focused by skill. Complex tasks and culminating assignments are broken down by production process sections with included checklists to help direct students.
Pre-training Principle – Terms and characteristics provided.	There are many technical terms in video production, they will be included, or there is the expectation that students will define them as part of the learning process. Skill development section of instruction will prepare students for complex multistep culminating tasks.
Modality Principle – Present graphics with aural narration rather than graphics with printed text.	Video walkthroughs will show the use of the tools through screencasts. Lesson summary videos can provide an alternative to the lesson text.
PRINCIPLES TO FOSTER GERMANE LOAD	
Multimedia Principle – Use both words and pictures.	Badges are included to remind students of developed skills. This is video production, the whole module is to help students connect text, visual and auditory elements – the learning package should reflect that.
Personalization Principle – use informal, conversational style for communication.	Walkthrough videos will not be heavily scripted, the lesson content will maintain an informal style.

Figure 4

Prototype Design Elements

Website Mockup - Information Page

Production Process Icons



Website Mockup - Lesson Page

Skill Development Badge

Assignment Document

Video Title Cards

VISUAL DESIGN

Figure 5

Wide Screen Website Layout

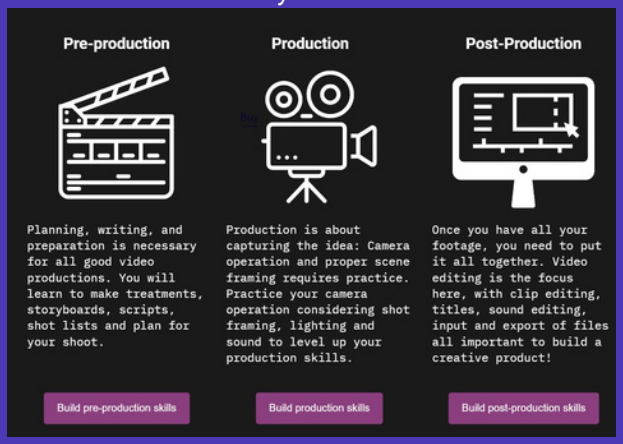


Figure 6

Mobile Website Design Layout

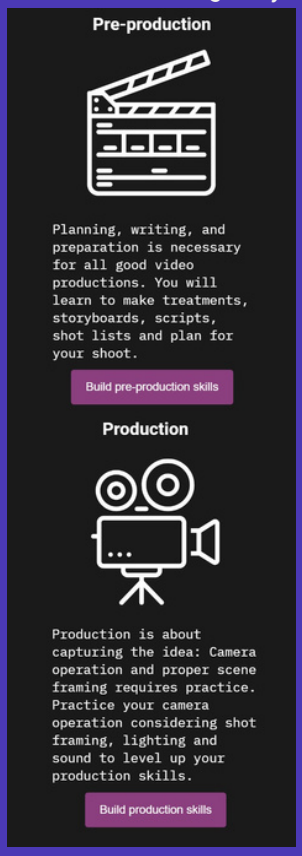


Figure 7

Camera Movements Badge

Figure 8

Post-Production Icon

Figure 9

Video Title Card

Scan QR code or click here for prototype elements.

LAYOUT

Content layout is expected to be followed in a linear fashion. The user progresses from top to bottom and from the left to the right. For full size computer screens the layout will have some elements to engage with from left to right, for mobile design these elements will stack vertically.

TEXT

Contrast. I have used black or white for background colours for the mockup designs, with the contrasting colour for the text. Titles point out section breaks, and boxes or tables bound certain elements to highlight their importance.

GRAPHICS AND COLOURS

Skill development badges are bright yellow to contrast the stark colours (black and white) of most of the layout.

Graphics title plates for videos are purple and yellow.

Buttons on webpages and the main activity instruction boxes are purple.

The bright colours bring focus to these elements, as they involve interaction or tasks to complete.

ICONS

Icons are used to show connection to the parts of the video production process. The icons appear in videos, on information pages, and assignments pages associated with that part of the production process.

PART 4:
EVALUATION

USABILITY TESTING

The quality of the instructional design product can be improved through the evaluation of the prototype. The usability testing will determine the strengths and weaknesses of the design. Teachers can provide feedback on their understanding of the content, their ability to work with and move through the content and their perceived ease with which to use the materials in their classroom. Student testers can provide feedback on the content, the flow of the content, and the efficacy of the layout and order of materials.

Table 6

Usability Testing Details

PREPARATION	
Participants	• The usability testing will be carried out by 3-4 teachers in the Sun West School Division who have a variety of experiences with teaching video production with their students. • The testing will also be completed by students selected by the test teachers, to get a student perspective on the prototype content.
Location	• School Computer Lab or classroom for Sun West teachers and students at various schools.
Equipment	• Testers will need computer access with a web browser. Preferably a computer that can run video editing software. Testers should also have a camera and a device running Adobe Rush (phone, tablet, or computer).
Materials	• Module content - website. • Assignments and supporting documents for lessons and assignments.
Instruction to Participants	• Participants will receive elements of the prototype design. They will receive a prompt to consider the strengths, weaknesses, and broken elements of the design while interacting with the material. • They are to click buttons, navigate content, watch, listen, or read the lesson materials and assessment tasks. • They will then provide positive and negative feedback on the layout and functionality of the elements and the quality and quantity of the content, either through a Microsoft Form questionnaire or through an interview with the instructional design team. • The feedback from teachers should reflect their experience interacting with the material, as well as the consideration of the needs of their students. • Student feedback should represent their experience with the prototype material.
CONDUCTING THE TEST	
Protocol	• Interview participants in a classroom setting will complete the testing as a concurrent think-aloud (Jain, 2019). They will provide their thoughts and feedback while working with the prototype element. The moderator will prompt participants with questionnaire questions. • If participants are completing an online questionnaire they will be completing the testing by remote usability testing (Jain, 2019). The tests will be completed individually, with the participants following the prompts in the questionnaire, and providing feedback in relation to the questionnaire elements.

MODULE EVALUATION

Feedback for improvement will not end with usability testing. The refined and completed video production module will be used in a variety of locations, by students and teachers with differing needs and strengths. It will be important to continue seeking out ways to refine the design, ensuring that all elements are functional and relevant to teachers and students.

Kaufman's five-level evaluation model described in Larson and Lockee (2014) provides the framework for the module evaluation. The evaluation will be provided as a questionnaire at the end of the module. All students and teachers will be asked to complete an evaluation when finished with the module. The questionnaire will involve a number of rating scale questions to determine each user's experience with the module.

Table 7

Teacher and Student Post-Module Completion Evaluation

EVALUATION PLAN	
Participants	• All students and teachers who access and use the video production module.

Method	• An online questionnaire using a rating scale (strongly agree-->strongly disagree), with sections for comments on strengths, weaknesses, glaring errors, and broken elements.
	• Kaufman's five-level evaluation model described in Larson and Lockee (2014) provides the framework for the module evaluation.
	  ◦ Resources and processes.
	  ◦ Acquisition of outcomes.
	  ◦ Application of knowledge and skills.
	  ◦ Development of personal organization skills.
	  ◦ Societal contributions.

Timeframe	• Following the completion of the video production module.
Instruction to Participants	• Participants in evaluation will need to rate their interaction with the elements of the module on a scale of "strongly agree" to "strongly disagree". • Participants can also provide feedback through comments on the strengths and weaknesses of the design, broken elements, or missing content. These comments are not required but would be encouraged in the questionnaire.

USABILITY TESTING

Scan QR code or click here for questionnaire

VIDEO PRODUCTION MODULE EVALUATION

Scan QR code or click here for questionnaire

APPENDICES

Digital appendices contain elements of the instructional design. Click the appendix title to access the appendix contents. Please follow the instructions for accessing links in your document viewer program.

A PROCEDURAL CONCEPT MAP

(Hadden, 2021a)

- procedure leading toward the Shot Type Showcase Assessment - a mid-module culminating task.

B PROTOTYPE ELEMENTS

(Hadden, 2021b)

- Website design layout and pathway
  - Skill Development Information Page
  - Pre-production Skills Information Page
  - Script Writing Activity Page
  - Shot Type Showcase Project Page
- Other prototype elements
  - Icons
  - Title cards for video
  - Editing with Adobe Rush videos (Hadden, 2021e; Hadden, 2021f)
  - Shot Type Showcase assignment documents

C USABILITY TESTING QUESTIONNAIRE

(Hadden, 2021g)

D MODULE EVALUATION QUESTIONNAIRE

(Hadden, 2021h)

E INSTRUCTIONAL DESIGN TOUR VIDEO

(Hadden, 2021d)

REFERENCES

Communication media 10, 20, 30. (2010). Saskatchewan Ministry of Education.

Driscoll, M. P. (2005). *Psychology of learning for instruction (3. ed)*. Pearson Allyn and Bacon.

Docformats. (2021, October 26). 18 FREE Creative Screenplay Templates (with Screenplay Formatting Guide). Document Formats. https://www.docformats.com/screenplay-template/

English language arts 7. (2008). Saskatchewan, Curriculum and E-Learning, Humanities Unit.

English language arts 8. (2008). Saskatchewan, Curriculum and E-Learning, Humanities Unit.

English language arts 9. (2008). Saskatchewan, Curriculum and E-Learning, Humanities Unit.

Friesem, Y. (2016). Developing digital empathy: A holistic approach to media literacy research methods. In *Handbook of Research on Media Literacy in the Digital Age* (pp. 145–160). IGI Global.

Hadden, S. (2021a). Procedural Concept Map. Miro.com. https://miro.com/app/board/o9J_loGEhQo=/?invite_link_id=631477327768

Hadden, S. (2021b). Video production pathway prototype. Miro.com. https://miro.com/app/board/uXjVOfTiujw=/?invite_link_id=870476407584

Hadden, S. (2021c, July 13). Can we go to the pool? - A shot type video example. Www.youtube.com. https://youtu.be/Iu2FFLapVcw

Hadden, S. (2021d, November 14). Video Production: It's For Fun and Public Service. Www.youtube.com. https://youtu.be/mFKpR8WRgrI

Hadden, S. (2021e, November 20). Adobe Rush: Create project. Www.youtube.com. https://youtu.be/zBvuVlQAoZQ

Hadden, S. (2021f, November 20). Adobe Rush: Working with the timeline. Www.youtube.com. https://youtu.be/MXkF67_wKvY

Hadden, S. (2021g, December 5). Usability testing for video production module. Forms.office.com. https://forms.office.com/r/diRQ7xYCZq

Hadden, S. (2021h, December 5). Video production module evaluation. Forms.office.com. https://forms.office.com/r/0X9Zy1kWRU

REFERENCES

Hobbs, R. (2010). Digital and Media Literacy A Plan of Action. A White Paper on the Digital and Media Literacy Recommendations of the Knight Commission on the Information Needs of Communities in a Democracy. The Aspen Institute.

Information Processing 10, 20, 30. (2020). Saskatchewan Ministry of Education. www.curriculum.gov.sk.ca

Jain, A. (2020). *How to choose usability testing method and protocol*. UXness. https://medium.com/uxness/how-to-choose-usability-testing-method-and-protocol-a3a61e89f2db

Jenkins, H. (2007). Confronting the challenges of participatory culture: Media education for the 21st century—(Part One). *Nordic Journal of Digital Literacy*, 2(1), 23–33.

Lannom, S. (2019, September 1). How to Write a Better Screenplay. StudioBinder. https://www.studiobinder.com/blog/how-to-write-a-screenplay/

Larson, M. B., & Lockee, B. B. (2014). *Streamlined ID: A practical guide to instructional design*. Routledge, Taylor & Francis Group.

MacDowell, P. (2017). Girls' Perspectives on (Mis)Representations of Girlhood in Hegemonic Media Texts. *Girlhood Studies*, 10(3). https://doi.org/10.3167/ghs.2017.100315

Media Studies 20. (1998). Saskatchewan Learning.

Siemens, G. (2005). *Connectivism: A Learning Theory for the Digital Age*. International Journal of Instructional Technology and Distance Learning. http://itdl.org/Journal/Jan_05/article01.htm

Stockman, S. (2011). *How to shoot video that doesn't suck*. Workman Pub. Co.

StudioBinder. (2017, September 19). How to format a screenplay: Screenplay formatting 101 - YouTube. Www.youtube.com. https://youtu.be/_2uZ7IabVOM

The Learning Bar. (2020). *Report on Student Outcomes and School Climate Saskatchewan Project Secondary Survey (8164) Biggar Central School Highlights*. The Learning Bar.