

# Instructional Design Blueprint

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The goal of this project is to create a learning unit that would allow students to develop a better understanding of photocomposition elements and principles. This unit includes a tutorial (with a pre and post-test), a multimedia presentation of their pictures (portfolio), as well as an online communication component (learning community) where students will critique each other's portfolio. The topic "Elements of Photography Composition" is a major theme in the elective course Photo Journalism 11/12 in British Columbia. Learning about photocomposition elements, principles, and design will help students gain the basic skills and knowledge to enable them to take "candid" photographs that have meaning and purpose. These skills will help them take meaningful pictures for the yearbook, which is a major goal in this course.

### Parameters

This instructional unit will be used in a face-to-face classroom to supplement the existing lessons for the photojournalism class. However, this instructional unit could also be used as a separate online tutorial with an online communication component if the environment was shaped to support distance education. To be successful in this unit, a strong commitment to the class and to the yearbook project is a requirement and will be evaluated. The yearbook is part of the student body, the school, and the community. All these stakeholders look forward to the publication of this yearbook at the end of each school year. Therefore, each student is strongly encouraged to put effort in taking quality photos for this yearly event as well as to add their own journalistic flair to the whole product.

The deliverable for this project is a website. In this interactive Flash website, interactive testing components as well as modular instructions are present. A blueprint discussing the instructional design principles is also included. The instructional content (elements and principles photocomposition material) is organized in a module fashion to teach each element/principle. A task, which involves work in their portfolio, is required at the end of each module.

Students will create a PowerPoint presentation to showcase their work. Regular feedback is incorporated (in an online discussion component) in the course. Students and instructor are expected to give other students feedback on their work (portfolio) to improve the quality of their pictures. At the same time, students will also be taking pictures for the yearbook.

### Rationale

The basics of photojournalism include design, layout, typography, and photography. These skills are taught in the first one and a half months of the school year, but are re-learned and re-constructed until the yearbook is completed. In addition to this, the students also need to decide on the theme for the yearbook, work the peripherals, and learn how to operate the digital and point and shoot cameras.

The rationale for doing this learning unit is that the photography portion of the yearbook has not met the industry standards. Past yearbooks have shown photos that have heads chopped off, groups of more than ten students in a photo, posed photos, and out of focus photos. There have been periodic seminars given during the course of the

year to reinforce to the students these elements of photocomposition. However, they don't seem to meet the current need due to time constraint of monthly deadlines.

We hope that with the introduction of this unit, we will resolve this instructional gap. By giving the students more time and flexibility to process the material, we hope that they will produce better quality photos for the yearbook.

### Objectives

#### *Institutional Objectives:*

The following core values serve as our foundation at Rockridge Secondary School.

Rockridge Secondary School strive to establish an atmosphere in which:

- Students are recognized and appreciated for putting forth a strong effort
- Cooperation, teamwork, respect for others and their work guide daily behaviour

#### *Instructional Objectives:*

Below are the course objectives taken from Photo Journalism 11/12 (Kim, 2002).

#### Course Objectives:

##### General Computing Skills:

- Employ the elements and principles of design

##### Organizational and Leadership Skills:

- Be an independent learner and team person on a regular basis
- Maintain all chosen and required written assignments in a portfolio
- Keep the portfolio self-reflection and evaluation forms up to date

##### Yearbook Publication Skills:

- Take creative and effective photography with school cameras

- Be exposed to the elements and principles of photocomposition

The following outcomes (from the Visual Arts 11 and 12 B.C .1995 curriculum) are used as a *guideline* in this learning unit for the design of the tutorial, for the creation of a portfolio and reflective material (synopses in portfolio) and for a better understanding of the elements and principles of photocomposition.

Image-Development and Design Strategies (Perceiving/Responding):

- Students perceive and respond to images in ways that demonstrate awareness of the sources, techniques, and strategies of image development and design

Image-Development and Design Strategies (Creating/Communicating):

- Students create images reflecting their understanding of a wide variety of image sources, techniques, and image-development and design strategies

Context (Perceiving/Responding):

- Students perceive and respond to images and the ways these images reflect and affect personal, social, cultural, and historical contexts

Context (Creating/Communicating):

- Students create images that communicate understanding of and appreciation for the influence of personal, social, cultural, and historical contexts

Visual Elements and Principles of Art and Design (Perceiving/Responding):

- Students perceive and respond to images in ways that demonstrate their understanding of the visual elements and principles of art and design



### Visual Elements and Principles of Art and Design (Creating/Communicating)

- Students create images that communicate their understanding of and appreciation for the visual elements and principles of art and design and how they are used to communicate

### Materials, Technologies, and Processes (Perceiving/Responding):

- Students perceive and respond to images from a variety of different types of artworks in ways that demonstrate their understanding of how the choice of materials, technologies, and processes affects images

### Materials, Technologies, and Processes (Creating/Communicating):

- Students create images that demonstrate their ability to communicate effectively using a variety of materials, technologies, and processes

### Audience

The audience for this report (instructional design blueprint) is intended for our professor and colleagues in EDER 673 – Instructional Design. However, this type of reflexive activity was more of a process of projection. It really answers the question, what will I do next? This according to Bloom's Taxonomy is the part where we appraise, assess, or criticize on the basis of specific standards or criteria. We are, in fact, assessing ourselves using our own standards that we created using the instructional design model, our experiences, and our reconstructed learning. This process carries reflection into the future, which is important because we are now taking what we have learned in the past and using it in the future to foster growth and improvement.

The intended audience for our project is senior high students in grades 11 and 12. This locally developed course at Rockridge Secondary in West Vancouver is an elective that fulfills a 4-credit requirement for Applied Skills 11 according to the British Columbia Ministry of Education guidelines (IRP's - Integrated Resource Packages). West Vancouver is a community just outside of Vancouver with a population of 40,882. It ranks as one of the wealthiest areas in Canada. In West Vancouver, male residents made an average of \$126,880 while female residents earned an average of \$57,345 (Seyd, 2003). The earning of an average man in BC is \$38,809 (Seyd, 2003). Rockridge Secondary was built in 1995 during the technology boom. The layout of the school was developed to accommodate the expansion of technology. The school has a population of 700 and is very homogeneous with Caucasian (90%) making up the majority of the student body. The remainder of the population (10%) are students of Asian descent, mostly international students. West Vancouver School District has a strong recruit of international students mostly to make up for the deficit in the school district's budget. Most of these students find themselves in this class because it is an elective without pre-requisites and also because there is no minimum English language requirements. Females make up 66% of the class. This is important because in other technology courses, it is the males that make up the majority of the class. This occurs because photojournalism is seen more as writing/design course rather than a technology course. However, the majority of the work is done on the computer.

#### Use of Technology – Hardware and Software

For students engaging in photojournalism, there is no requirement to know how to use the computer. However, as students soon find out, the majority of the work will be

done using the computer. The layout, design, photography, graphics, and editing all use computer equipment to create and synthesize.

In our learning module, the web browser loads up the Flash web site, which is then used to present our information on the elements of photojournalism. Flash is an interactive medium that allows the students to explore the concepts at their own pace. The tutorial is designed so that at any time, students can go back to review or re-learn a concept thereby re-constructing their learning. The pre-test and post-test are also interactive in that they give hints as well as giving a percentage when the test is completed. These tests were completed using the Hot Potato version 3. Other software the students use include Photoshop version 7, which allows for cropping of the photographs. Digital cameras (Nikon Coolpix 4500) and point and shoot 35 mm cameras (Canon Rebel) are used to take the photographs. Print photos that require manipulating will be scanned and refinished in Photoshop. The multimedia presentation containing all the photos taken, the synopses, and the reflections will be done using PowerPoint 98. Using PowerPoint to create a visual portfolio using hypertext is an easier process than web design. However, in order to keep the file size low, all the photographs must be cropped to a certain dimension, but must also remain a certain resolution in order for them to be viewable.

All software chosen for this tutorial has certain strengths and limitations. However, the main priority in the selection process was if the software or plug-ins were available on the network and if not, could be obtained as freeware. All documents, software, and scanners used in this tutorial are accessed in a Novell networked

environment. Hardware is not an issue as most have been bought within the last three years.

Technology used in this learning module fosters learning. It is a mean by which we deliver the information. However, technology does not merely teach, but rather the students learn from their thinking. The different processes in which the students must undergo to create their final product allows for scaffolding of learning. From our tutorial to taking photos to manipulating photos to adding synopses to writing reflection, learners build up each skill with high order skills. Research has demonstrated that teaching a generous number of carefully chosen exemplary facts within a meaningful explanatory context is the most appropriate method for supporting the ability to engage in insightful thinking and problem solving (Hirsch cited in Norton, 2003, p. 123). The learning community in this tutorial supports knowledge construction by producing, organizing, multimedia knowledge bases by learners, by comparing perspectives, and by helping learners articulate and reflect on what they have learned and how they came to know it (Jonassen et al, 2003).

### Approach

In this Photo Journalism 11 /12 class, there lies a performance problem in that students are having difficulty taking candid photos that adhere to the elements of photocomposition. This section will describe our approach to find solutions for this problem using instructional design principles.

#### Model:

The instructional design model (see Appendix – Figure 1), completed by the author in EDER 673 – Instructional Design, was used as a guide in creating this learning module. In this instructional design model, there are five small ovals within a large oval

signifying the interconnectivity of the different processes. They are named: problem formulation/analysis phase, design phase, development phase, implement phase, and assessment phase. In fact, you don't have to start at the same spot; the connected circles have the sub-phases all connected and feeding back upon each other (Lakey, n.d.). It facilitates reflexivity, which is the key to action research and allows for the maturation of the model. The general guideline that has been adopted for this revised model will allow for greater flexibility and revision of the design at the practice level (Dwight, n.d.).

In this model, there lies a performance problem in that students are having difficulty taking candid photos that adhere to the elements of photocomposition. This *problem formulation phase* works as part of the *analysis phase* which determines what to teach, where to teach, and who is going to be taught. The main purpose is to find out what the learner needs and what skills and knowledge are needed to accomplish that task or assignment (Burgess, 2002). The pre-test acts as our analysis phase where the students find out what they know and don't know. The *design phase* requires the collaborative efforts of the students and teacher in creating the learning objectives. Each of the elements of photocomposition can be broken down comparing and contrasting a good and a bad photograph. The teacher is also required to create the test so that the performance required in the test matches the performance required in the objectives (Burgess, 2002). The post-test and the PowerPoint portfolio allow for this to occur. This phase of reviewing other student's photos and critiquing them allows students to review the elements of photocomposition from different perspectives. The *development phase* takes the data collected and pieces the information together to make it more understandable. The process of brainstorming solutions and evaluating and selecting solutions make up

the steps in this phase (Burgess, 2002). The students generate ideas while the teacher facilitates the process and guides them to locate the required information. When possible solutions are explored and pared down, the group is responsible in selecting the most feasible solution to solve the problem. This works well with the development of the yearbook, which includes choosing the photographs that will be used or not. The *implement phase* is accomplished when the students finish the yearbook, which is the major focus of photojournalism. The *evaluate phase* incorporates assessment from both the student and teacher. The process by which this occurs allows students to apply their knowledge or synthesise their knowledge in making comparisons to established protocols (Burgess, 2002). Their PowerPoint portfolio allows for assessment of this phase, which is done using a rubric.

### Instructional Flow

As previously mentioned, the online Flash tutorial is only one component of this learning unit. The intent of this unit is to provide a sequence of instruction in an environment that will help students to develop a better understanding of photocomposition elements and principles for the ultimate goal of taking better pictures. Following is the proposed outline for the flow of instruction.

1. At the beginning of the school year, the instructor will teach basic skills regarding Photo Journalism. These will be discussed and used all year round.
  - Design
  - Layout
  - Typography

2. Instructor will introduce students to elements and principles of photocomposition (mini lesson).
3. Students access the online tutorial to explore each concept at their own pace. They can go back and review as needed.

Tutorial includes:

Pre-test

- Students access prior knowledge
- Gives immediate feedback

Modules of instruction

- New concepts are presented to the students in small chunks
- Exploration of other material (links to pertinent Internet sites)
- Tasks to be displayed in PowerPoint portfolio

Post-test

- Students test their knowledge of the concepts
- Gives immediate feedback

Form Survey

- Students input pre and post test scores
- Students input what they knew before the learning module, what they learned from the learning module, and what they want to go after using this learning module.

4. Students work on their portfolio (this is a cyclical event that occur after being introduced to the elements and principles of photocomposition).

- Students take pictures

- Students manipulate photos (crop, etc)
  - Students write synopses (reflective writing) about their photographs
  - Students build their portfolio in PowerPoint
  - Students upload their pictures on their portfolio to the discussion forum  
(learning community)
5. Students participate in the learning community (this is a cyclical event that occur after each concept)
- Students will give other students regular feedback regarding their work
  - An online forum ([EZ Board](#)) will be used to facilitate this
6. Students take pictures for the yearbook (ongoing)
- Students take pictures
  - Students manipulate photos (crop, etc)
  - Students choose photos for the yearbook

#### Instructional Methods and Procedures

In the design of the elements of photography composition learning module, both the objectivist and constructivist instructional methods were employed.

##### *Objectivist Methods and Procedures:*

The first approach follows a type of learning that has elements in the behaviourist and cognitive realm. The cognitive scientist would analyze a task, break it down into smaller steps or chunks, and use that information to develop instruction that moves from simple to complex building on prior schema (Mergel, 1998). This approach is seen in the interactive photocomposition tutorial created in Flash. In this learner-controlled environment, the eleven elements of photocomposition are presented. The



tutorial covers the KISS (keep it simple stupid), rule of thirds, fill the frame, texture, background, framing, leading lines, depth, compare/contrast, unique angles, and patterns elements. All these elements are important in taking photography suitable for the yearbook. As with most yearbooks photos, there are usually many people grinning at the camera. This type of photography is not a “candid shot.” A candid picture by definition is a picture of students and teachers in action, doing things, not stopping and grinning at the camera. The purpose of this learning module will enable students to take “candid” photography that has meaning and purpose. A pre-test and post-test are also used to measure the effectiveness of the learning objectives.

*Constructivist Methods and Procedures:*

The other approach that was used employs constructivist methods. This approach allows “students to have sufficient time to work collaboratively with their peer learners to construct knowledge or to solve assigned problems through authentic learning activities (Chen, 2002). With each element covered, the students are required to put together a PowerPoint presentation of their photos demonstrating their understanding of the elements. With this multimedia and hypermedia construction, there are “lot of intentional learning” (Jonassen et al, 2003). These episodes of intentional learning give students the opportunity to construct and re-construct their learning through each new experience. This construction and re-construction of learning is the basis of constructivism (see Table 1).

Constructivist Guidelines	Learning Outcomes
Knowledge construction, not reproduction	<ul style="list-style-type: none"> <li>Learning about the elements and taking photographs using these elements as a guide</li> </ul>
Conversation, not reception	<ul style="list-style-type: none"> <li>Critiquing other student’s photographs in a learning community</li> </ul>

Articulation, not repetition	<ul style="list-style-type: none"><li>• Creating and reflecting on the photographs they have taken</li></ul>
Collaboration, not competition	<ul style="list-style-type: none"><li>• Working towards a nationally recognized yearbook (<a href="#">Canadian Yearbook Review</a>)</li></ul>
Reflection, not prescription	<ul style="list-style-type: none"><li>• Transfer these principles to other design situations (web, graphic, print)</li></ul>
(Jonassen et al, 2003)	
Table 1- Constructivism and Learning Outcomes	

Moreover, a learning community is created on the Internet for students to critique each other's photos allows for an ongoing construction/re-construction of learning. The common belief is rather than forcing students to conform to pre-packaged instructional requirements, emphasis is placed on the social and cognitive contributions of a group of learners to each other, with students collaborating and supporting each other toward commonly accepted learning goals (Jonassen et al, 2003). This peer feedback activity using multiple source of feedback allows successive drafts (photographs) of the student work be worked and reworked. The use of this constructivist approach gives meaning to what is learned. As educators and designers, the first and foremost responsibility we have is to "design learning opportunities by teaching the structures and processes related to disciplinary knowledge so that students will be able to use their understandings to interpret and influence the world" (Jonassen et al, 2003).

### Assessment

If we are to use a constructivist approach to teaching, then new types of assessments are needed (Norton & Wilburg, 2003). In this unit, different approaches are used to teach content and skills. Therefore, different assessments are also used accordingly.

Assessment of institutional objectives:

- The assessment of the institutional objectives will be done using the [Personal and Social Responsibility Scale](#).

Assessment of course objectives:

*Assessment of organizational and leadership skills:*

- Self- evaluation and teacher evaluation will be used as a starting point for students to reflect and to make them accountable for their behaviours. Then, a conversation instructor/student will be planned to discuss both evaluations, creating an “authentic assessment” (Hart 1994, in Norton & Wilburg, 2003). According to Norton and Wilburg (2003), alternative forms of assessment measure higher-level of cognitive skills.

*Assessment of portfolio (pictures and synopses):*

- The portfolio will be evaluated by other peers and by the teacher. Students will critique other students’ work. Feedback from the students will become part of the instruction (Norton & Wilburg, 2003). Portfolios are good method to assess students’ work. Norton & Wilburg (2003, p.224) emphasize that it’s better when “student generate rather than choose a response”.
- The quality of the pictures and the synopses in the portfolio will be evaluated by the instructor and by other students. The assessment will be done using a general analytical rubric. Norton & Wilburg (2003, p.232) state that this type of rubric is adequate when the goal is to “guide teaching and learning over time”. Since working on the portfolio is a cyclical event, which requires receiving feedback from other students and reworking on pictures, this type of assessment, a general analytical rubric, appears to fit nicely.

- The social and cognitive contribution in the online discussion/learning community will not be formally evaluated at this point, as this is the first time students have used this type of collaboration. The data collected will serve as part of an action research that the instructors will use to guide further use of this type of discourse in future classes.

*Assessment of photos in yearbook:*

- The quality of the pictures, in using the elements and principles of photocomposition, will be evaluated with a general holistic rubric, as “the intention is to evaluate the product as a whole”(Norton & Wilburg, 2003, p. 228). This evaluation will be more a summative evaluation where students get evaluated for the quality of their pictures they provide in the yearbook.

*Assessment of the tutorial:*

- Students will be asked if the tutorial has helped them to learn about the elements and principles of photocomposition. This will be done with a survey at the end of the course. This survey is set up as a form where students input their name, pre-test score, post-test score, what they knew before the learning module, what they learned from the learning module, and what they want to go after using this learning module. The K-W-L-H teaching technique is a good method to help students activate prior knowledge. It is a group instruction activity developed by (Ogle, 1986) that serves as a model for active thinking during reading.

**K** - Stands for helping students recall what they **KNOW** about the subject.

**W** - Stands for helping students determine what they **WANT** to learn.

**L** - Stands for helping students identify what they **LEARN** as they read.

**H** - Stands for **HOW** we can learn more.

This type of summative assessment is required to find out if the tutorial has some value for the student and if it is in fact helping them to learn about the elements and principles of photocomposition. The reason to use a pre-test in the tutorial is to access prior knowledge and to situate the learner. It is use more as a diagnostic tool for the students. The post-test is used for formative purpose for the students. It gives them feedback right away about their knowledge/understanding of the elements and principles of photocomposition.

### Conclusion

This learning unit has lots of potential to help students develop a better understanding of the elements and principles of photocomposition. Both the tutorial and the portfolio work with their different approaches have a role in teaching students the elements and principles of photocomposition. It is expected that the students will construct new knowledge that will “stick” with them. The concept teaching used in the tutorial involves both conceptual and procedural knowledge. The student does not merely define a concept based on some criteria, but uses the concept to compare and contrast with different concepts. Consequently, the student applies the definition to different situations. Such as in photography where each situation is different, the photographer must apply his knowledge of the elements to compose the best photo possible. The portfolio work, with the different approaches – peer assessment (learning community), self-interactive assessment (pre and post tests), and teacher assessment (form survey) offer the students a range of ways to show their full potential. The formative and summative assessment methods used will allow for a continued measure of

the learning outcomes. Ultimately though, the quality of the photos in the student's portfolio and in the yearbook will show if this learning unit has been successful.

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