**Working with Photoshop’s Camera Raw**

**CIS120DF**

**Introduction**To get the best image quality from a digital camera, you need to shoot in the raw image format (.dng). Raw files contain much more detail compared with a simple .JPEG providing far more flexibility to adjust contrast, color, and exposure at the editing stage. While there are many ways to process a raw file, the most popular is to use a built-in-plugin called Adobe Camera Raw which packages with Photoshop CS6 and CC. In fact, a .dng image opens automatically in Photoshop’s Camera Raw ready for editing.

Even though I’d shown “before” and “after” images to my Photoshop class, when they were given a .dng image which clearly needed improving they tended not to experiment but to accept the image basically as it stood.

**Module Goals**The goals of this assessment were to use the scientific method as defined by SAAC to generate an atmosphere of inquisitiveness, analysis, experimentation, and data recording by which students would improve the quality of an image.   
  
**Class Preparation**In order to prepare students to achieve these goals, I demonstrated each step of the image improvement process, discussing how to use the various Camera Raw sliders and what each slider movement was and could achieve. We also worked together on an image which needed manipulating as practice. Students were then placed in groups and given an image of a waterfall (attached) which needed the contrast, exposure, color, and tone improving.

A Workflow sheet (attached) was given to each group to which scaffolding had been applied. The Iris Center defines Instructional scaffolding as a process through which a teacher adds supports for students in order to enhance learning and aid in the mastery of tasks. First, students were required to determine what problems the photograph had choosing from a list of given terms which had been discussed during the practice session (attached). Next, they were required to complete the Workflow Worksheet (attached) using the subheadings given. These subheadings were in procedural order and consisted of suggested slider movement, recording what each slider movement achieved, and writing down the percentage of change each slider needed in order to generate improved quality. Finally group presentations were given and each group was able to share their findings as well as showcase their finished product.

**Outcome**  
The results were pleasing, students were inquisitive, engaged, and proud of their edited products. To illustrate this, the “before” image is included, as well as an example of an “after” image which has been improved using Camera Raw. This project was initially offered during fall, 2014 but the results were disappointing – there was a general lack of interest, students couldn’t explain why they had made certain changes, and their end products lacked the quality required. It was clearly necessary for me to tighten up the process. To this end I created a new Workflow Worksheet and used scaffolding and the scientific inquiry method. In spring 2015 the results were significantly better. There were 15 students in the 2015 class, eleven achieved an A (90%), and four a B (80%). The previous semester- 14 students had completed the project, with two receiving an A, nine a B, and three a C.

**Completion Table**

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| --- | --- | --- |
|  | Fall, 2014  CIS120DF  N=14 | Spring 2015  CIS120DF  N=15 |
| A: (91% - 100%) | 2 | 11 |
| B: (81% - 90%) | 9 | 4 |
| C: (71% - 80%) | 3 | 0 |
|  |  |  |

**Future Plans**

In fall 2015, I intend to offer this module again, but improve the assessment process by measuring performance on key learning outcomes as defined in a rubric.