

The best lesson I ever taught was on the workings of a camera shutter. This may seem like a dry topic, but with some imagination and some enthusiastic students, the lesson became magical.

The shutter is a camera mechanism that opens and closes to allow light into the camera. Varying the shutter speed can affect the appearance of a photograph. With some shutter speeds, moving objects appear blurry; other speeds can freeze action as if nothing were moving. With a very long exposure, called a time exposure, many creative things can be done.

In my classroom I can connect the camera to a television and immediately show students the picture after it has been taken. This makes it easy to demonstrate the effects of different shutter speeds. I first showed students the effects of slow shutter speeds by having a student walk in front of the camera as the photo was taken. The result was a blurry photo. I repeated the picture with a faster shutter speed and the student looked clear and sharp.

This was just the warmup to the real fun. Next, I turned off the lights and taught the students about time exposures. In a time exposure, the shutter stays for several seconds, instead of the fraction of a second that it usually stays open. I asked a student to push the shutter button while I waved a flashlight. The result was a pattern of light in the shape of my wave. One could wave the flashlight in a variety of patterns and essentially write with light.

The students eagerly volunteered to “write with light.” They produced several creative designs and some did it more than once.

Then I took an electronic flash and showed students how we could put more than one of them in a picture. This was accomplished with an exposure of several seconds. Every time I fired the flash, it captured an image of the student. I had them move several times during the exposure and fired the flash after each move. The result was several images of the student in one photograph.

This also brought great excitement. Students produced many creative ways to photograph themselves several times in one picture.

Next, we combined the two techniques. We used the flashlight to draw lines of light and the electronic flash to produce multiple images. Students eagerly participated and their creativity ran rampant.

I've done the same lesson many times, but on this particular day, the student enthusiasm and participation was the best it ever was. I helped students learn and have fun at the same time.