

PIXILATION

Pixilation is a specialized technique for animating people that promotes collaboration and peer group relations. A stationary camera records a posed human subject. Between captures, the subject moves to a new position. The process is slow and requires great patience and concentration. The Oscar-winning film *Neighbours* (1952) by Norman McLaren is credited with introducing the technique of Pixilation into the repertoire of animators.



Example of pixilation project where student and chair went for a ride.

Collaboration

Having students work together in teamwork. Essentially, collaboration promotes peer group relations in the interaction between students and gives them more responsibility for their own learning. Group work helps students build on social and decision-taking skills.

Ideas:

Swimming, floating, driving, skating, bouncing, car crash, animated face, appear to fly, appearing and disappearing, entrance and exit – prop a hat/appear & disappear, people and object – chair torments its owner, dancing with an object.

Tips:

- Trial and error rules pixilation!
- Camera should be steady for precise registration and continuity. Use camera movement sparingly. Have a camera set up in an environment that will have little background movement.
- If shooting outdoors watch out for different exposures due to the lighting.
- Controlling pace in pixilation can be difficult due to how it is created. Think back to the stop-motion project. To achieve a fast pixilation, a full 30fps could be used. To achieve a slower paced movement, use 10 or 15 fps (perhaps even 5 or 6, but this is often too choppy.)

LESSON PLAN

Objectives

Students will collaborate to complete an animation using the technique of pixilation. They will also be able to identify and discuss the work of Norman McLaren and they will explore more advanced concepts of framing.

Introduction

Pixilation, a middle-tech method for making animation, is great to use with learners of all ages and abilities because it is engaging, participatory, and can be

made without special props or materials. Have students view and discuss Norman McLaren, who created many examples of pixilations including the Oscar-winning, anti-war film *Neighbours* (1952), as well as the amusing and surreal *The Chairy Tale* (1957). More recent examples are the Bolex Brothers' *The Secret Adventures of Tom Thumb* (available on video) and the films of Paul De Nooijer.

Critical Viewing

Described as the most eloquent plea for peace ever filmed, *Neighbours* shows how a neighborly misunderstanding escalates into genocide. Viewing this animation can also lead to an interesting class discussion regarding how the movie's climax (in which wives and children are slaughtered) was sometimes censored because the sequence's effect was so shocking to sensibilities of the time.

Ask students:

- How do you think these films were made?
- Why did the filmmaker use animation instead of live action?
- How did the choice of film technique impact your perception of the theme?
- Which parts of this film do you think might have been offensive to earlier audiences?
- How do you feel about this particular sequence?
- Why are we now allowed to view this kind of image?

Materials

Tripod
Video Camcorder
Firewire cable
Computer (preferably laptop)
Framethief Software (<http://framethief.com/>)



Set-up

To prepare for pixilation exercises consider the following:

- Clear up a space in the classroom for performing.
- Set up Camera with Tripod pointing at the cleared out area.
- Connect camera to a computer station and open FrameThief.
- Let a student operate the camera and demonstrate the process yourself.

Different ways to Pixilate:

- Shoot straight video and show it without editing.
- Capturing frames directly into **FrameThief** as described in Stop Motion Lesson Plan.
- Shooting 'stills' in camera and then using **FrameThief** to capture the frames as you play the tape back. Capturing 2 to 4 frames per still will work unless you want the fast 30fps look.
- Shooting straight video and then use Final Cut to pixilate it by speeding up the video (which will remove frames), exporting it, re-importing it, and slowing it down again. The result will be the loss of the intermediate frames (uncheck frame blending in the **speed** dialog). It is important to remember however, that pixilation is more than just accelerated or stuttering video!

Exercise 1: Class Collaboration

Discuss ideas for a class collaboration using pixilation as the primary technique. Ask for two student volunteers: one as the leader, who will decide on the pose and lead the others in a line, and another who will act as the director for this animation exercise.

Exercise 2: Small Group Collaboration

Have student form into groups of 3 to 5. Each group will be in charge of creating an animation using pixilation as the primary technique. The duration should be at least 30 seconds but no longer than 2 minutes.

Have students consider:

- Advance planning is critical. Pixilation is very expressive and surprising, so it is often used with humorous intent.
- Pixilation excels at presenting things in a believable way that are otherwise unbelievable.
- Pixilation permits the impossible to appear possible. For example, a person can appear to fly, which is achieved by having the subject jump into the air precisely as the camera clicks off a single frame, over and over again.
- The footage can be manipulated using different programs to create a variety of visual variations: color shifts, pace shifts, blurring, backwards, etc.
- Be sure you light appropriately and consistently; nothing can ruin pixilation like having the lights moving in every still shot (unless it is perhaps done deliberately for a 'flicker' effect.)
- Sometimes pixilation is not easy for the performers because each individual pose for every frame should be completely controlled.

Evaluation

Instructors may evaluate this project using the general rubric provided. Select or add criteria depending upon the needs or levels of your students, and/or other curricular concerns. This lesson introduces new terminology therefore instructors should give a quiz about vocabulary such as pixilation and framing, about the artists Norman McLaren and his work, and about new software and its uses if applicable. In addition to that formal final assessment, I encourage teachers to conduct informal, in-progress assessment thinking about questions like these:

- How consistent is each group's style throughout the pixilation process?
- How identifiable and consistent is each group's style throughout the animation process?