



This screenshot of the fighting game *Naruto Clash of Ninja Revolution 2* was taken in the middle of a special ability animation. While the rest of the game is in full color, this entire animation happens in an inverted grayscale. When I first played this game and saw this animation in middle school, I was impressed by how the color palette of the game changed so quickly for this one moment in the game for just one character and then reverted back to color. I also really liked how every line and detail of each character was still distinguishable from each other using this limited color palette.

I think this effect was created with a shader that only affects the color output of pixels by applying a grayscale to this animation cutscene and then inverting the colors. I am not sure what formula is applied to create a grayscale of a colored image, but to invert it, the RGBA values would just have to be subtracted from 1.0. This effect does not change depending on the camera view, or at least from what I have seen from the animation's camera view changes that keep the cutscene interesting. The user cannot change the camera's direction during this part of the game, so I am unsure if the effect will actually change based on that. The lights probably would have an effect on the output of this effect because it takes a color image and creates grayscale image. More light exposure on the scene would cause the grayscale image to be lighter, and then turn even darker when the grayscale is inverted.