| Name(s)
Ty R. Koebler | Project Number
J0412 |

Project Title
Facial Expressions in Cartoons

Abstract

Objectives/Goals
This goal of this project was to investigate how different regions of the face are important for depicting facial expressions. My investigative question was: Which facial areas are most important for facial expressions? My hypothesis was that the important facial region would depend on the facial expression.

Methods/Materials
Materials: Consent forms; 5 reference photos of the cross-cultural expressions of happiness, sadness, fear, anger and surprise; 5 images drawn from the reference photos; iPad; slideshow of divided faces in random order and full faces at the end
Methods: Forty test subjects were shown sketches of partial and whole faces, which were hand drawn and depicted 5 universal expressions. Subjects were asked to write down the facial expression they saw.
1. Draw faces and prepare slideshow. 2. Make consent forms and answer sheet.
Experiment: 1. Review consent forms with volunteer . 2. Read the instructions. 3. Begin slideshow. 4. Subjects write down the emotion they see. 5. Repeat steps 1-3 with 40 volunteers.
After data collection: 1. Create a synonym list for emotions. 2. Calculate accuracy scores for each drawing.

Results
My results showed that happiness and surprise were interpreted better from the lower half of the face, but anger, fear and sadness were interpreted better from the upper half.

My results support my hypothesis. This project mirrors the findings in a similar experiment that psychologists did with photos. It also provides information for artists who want to know more about drawing facial expressions.

Conclusions/Discussion
This project shows that similar to in photographs, certain facial regions are more important for depicting certain emotions. This project adds to knowledge because as far as I know it was the first time this experiment was performed with drawings. This information can help me and other artists, because it shows what features are important to focus on for different emotions. It is important to get good at drawing emotions because feelings are important in storytelling.

Summary Statement
This project investigated which regions of the face are important in drawing five universal facial expressions.

Help Received
My teacher Amy Schwerdtfeger gave me feedback throughout the project, and my mom Suzanne Koebler helped me recruit volunteers and put together my board.