

APPLICATION OF *PHYSIOGNOMY* FOR DESIGN DEVELOPMENT CHARACTER IN ANIMATION

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Abstract

The Application of Physiognomy for the Development of Character Design in Animation. The research is developed to answer the need of clear design diversification in the creation of animated characters nowadays, to make the character easily recognizable by its market. The designed character is characterized in such a way to represent the designed personality in accordance with its possessed traits. Physiognomy, an in-depth observation study of human face physical characteristics to understand its personality, potential being a reference in making character designs more suitable to its personality, without having to repeat its previous designs. Through literature studies and animated films comparison, this paper aims to discover opportunities in animation character design through non-verbal communication tools like physiognomy. Analysis is done by matching the physiognomy data with observation to several animation film characters. Results of this study is a model that can be applied in the future of character creation in the animation world.

Keywords: character design, animation, physiognomy, face, personality

Abstract

Application of Physiognomy for Character Design Development in Animation.

This writing was developed to answer the need for a clear design diversification in the manufacture of animated characters today, so that these characters are more easily recognized by the market. The design of the character's appearance is shaped in such a way as to represent the personality that is designed and in accordance with the character traits it has. Physiognomy, as an in-depth study of observing the physical characteristics of the human face to understand a person's personality, has the potential to be a reference in making character designs that are more in line with his personality, without having to repeat the previous designs. Through literature study and comparison of animated films, this paper aims to open opportunities in the design of animated characters through non-verbal communication tools such as physiognomy. The analysis was carried out by looking at the suitability of the physiognomy data based on observations on several animated films whose character designs. The result of this research is a model that can be applied in the future in character creation in the world of animation.

Keywords: character design, animation, physiognomy, face, personality

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introduction

Awareness of the potential of the creative industry is currently starting to grow rapidly in Indonesia.

The government's lack of attention to this industry has begun to show its changes in recent years. This is shown by adding the creative economy in the line of ministries, and even now being changed to the Creative Economy Agency as an effort to further enhance integration in inter-departmental cooperation.

Along with this development, people who are involved in the creative industry have begun to form various communities to accommodate practitioners and even academics who have the same interests.

Some areas of creative industry are starting to grow and these industries are starting to show their potential. Starting from *superhero characters*, funny figures, adorn many media, such as feature films, series, comics, advertisements, tutorials, *game applications*. The activation of various communities in these fields, such as drawing, animation, comics, *games*, and so on shows positive activity in the development of character design in Indonesia. Slowly but surely the arena of conversation around character design is starting to move from just working towards commercialization, because in the creative industry, character designs that are right on target are those that can be used to sell products, concepts or offer information and so on. So even now more and more character designs are scattered around us. Almost every day we always see characters from comic characters, animated film characters or in- *game characters*, *merchandise*, even company or product mascots to stickers on social media.

In terms of *merchandising* itself, there are also many variations of development in various forms of media, ranging from *Pokemon Hats*, *Teenage Mutant Ninja Turtles Backpacks*, *Barbie Dolls*, to *T-Shirts with Spongebob images*. Even in Japan today, mascots not only represent a product or a company's *brand*, but can also be developed as a mascot for a *ski resort*, park, and even a city mascot that serves to introduce the area to attract tourists and make it easier to remember. . Design characters that appear in various forms become a very potential market with opportunities to be commercialized.

The increase in the number of new characters, encourages character designers to strive to create unique, attractive and easily recognizable characters. A character that is too similar to the previous character designs makes it difficult to be *Top of Mind*. Creating a completely different but still interesting character is not easy.

The development of character designs almost always begins by observing the previous work, and often produces characters that are relatively the same as the characters that have been created, while designs that are similar to previous characters make it difficult to become *Top of Mind*. Just making something completely different but still interesting is not an easy matter. Many characters begin by observing previous works, and often produce characters that are relatively the same as characters that have been created.

The difficulty in finding the reference face of this match character can actually be overcome by direct observation with the physical characteristics of human faces that are related to personality. Various possible characters can be developed from several that appear. The fact that no human being is exactly the same, expands the choice refers to millions of alternatives. The question is can we create a model or *template* that contains a complete and comprehensive index but still able to describe the physical characteristics that match the personality?

This writing is the first step in the application of physiognomy in character design, with a focus on creating solutions in character design to avoid creating clichéd characters based on take and paste from previous character designs, using a face reading approach that utilizes the rich variety of human faces while still maintain the nature and personality of the characters presented in the design.

Research methods

The research approach in the field of art design generally develops into three approaches, namely a qualitative approach, a quantitative approach and a multimethod approach. (Sachari, 2005). The research method used in this study is a qualitative method. Based on the selected qualitative research approach, the data collection method was also carried out qualitatively through data collection through various library sources such as books, journal articles, *online* sources, newspapers and other research reports that have been carried out regarding *physiognomy* studies and character designs.

Next is to analyze the suitability of the *physiognomy* data based on observations on several animated films whose design characters are known through character *merchandising*, as well as interviews with business people in the field of *character merchandising*.

Character Design

Disney and Pixar are one of the mecca of world animation. Likewise with the character design which is used as a reference in the creation of new characters. In Bazzini's research (2010) it is stated that Disney animated films promote the stereotype that what is beautiful is good. There, attractive characters are described as more morally virtuous and less aggressive, and achieve better lives than less attractive characters. The stereotypical character designs introduced by Disney seem to have begun to reveal Disney and Pixar's attachment to the stereotypes they created themselves.

In the Madrid article (2015), a sharp critique was made of the female character designs made by Disney-Pixar which tend to show less variety, compared to the male characters. It is feared that this Disney-Pixar trend will also become a good reference

will increase the number of cliché characters that tend to be similar so that it shows stagnation in the creation of richer characters. Therefore, it is felt that there is a need for innovation to expand the treasures of character expressions, especially in the world of animation.

Physiognomy Theory

In Greek, Chinese, Indian and Javanese cultures, the science of face reading was known which was later developed into *physiognomy*. Characters in animated films as well as characters in other media, require a design that can represent the nature or personality of the characters contained in the animation work.

According to Wade (2016) that towards the end of the 18th century, Johan Kaspar Lavater, a priest, teacher, poet, and artist from Austria undertook a comprehensive project to classify facial features as well as mental abilities and tendencies. His *Essay in Physiognomy* became a major source in this field, and he became prominent as the founder of this new science. Wade explains that Lavater thinks the characters are expressed in the form of faces and that the features of the human head show a striking resemblance to animals and they refer to this endeavor as *physiognomy*.

In his book, Lavater (1789) defines *physiognomy* as "*the science or knowledge of the correspondence between the external and internal man, the visible superficies and invisible contents.*" Meanwhile, Tickle (2003) mentions that *physiognomy*, namely the study of the face, is about 2700 years old. According to him face reading was first known to be done by the Chinese, who did it to diagnose disease.

Then clues obtained from facial structure are used to determine personality type, including estimating the time frame in a person's life when he will reach his greatest potential.

Scholars from Europe also study *physiognomy*.

This observation is mentioned in Kabbalah, the Jewish belief. Shakespeare, Milton, Dryden and their philosophical followers popularized the theories and principles of *physiognomy*.

Although according to Oommen, A. & Oommen, T. (2003), the influence of circumstances also affects character. Although a person has certain facial features during the early years of his life, his character can be changed by his religious tendencies, education, environment and attitude towards life. Willis (1889) described *physiognomy* as "*first, as the revelation of the character or spirit of any living organic being, by and through the form, expression and color of the features; second, as the art and science of discerning and understanding the character so revealed to the observer.*" So from his definition, Willis divides *physiognomy* into two types: Active and Passive.

Tickle (2003) adds that in the 1930s, Howard Jones, a Los Angeles judge, observed the behavior of people in his trial.

Using scientific principles, Jones looked at 200 different facial features

and then narrows it down to 68 traits. The study includes hands and body proportions which have an accuracy of 92% in determining a personality profile. The resulting system replaces the methods that previously appeared regarding the study of human characteristics. Judge Jones, said that *physiognomy* is a "new" scientific approach to face reading. Jones' contribution to understanding human nature is revealed in the face, making *physiognomy* accepted, credible, understood, and used. He uses the new *physiognomy* in jury selection, personality development, relationship improvement, civilizational understanding, sales and career appraisal. Follow-up research was also conducted in 1943, in a United States Air Force Academy first year class to determine how many students would survive the training.

The results of this study have an accuracy of 96%.

The *physiognomy* analysis in Wells's (2016) article explains in its entirety regarding: a) the shape of the face, eyebrows, eyes, nose, lips, and forehead as well as facial lines, b) the level of intelligence, c) *comparative physiognomy*, resembling or similar to something, and d) racial or ethnic character grouped into Caucasus, Mongolian, Malay, American and/or Ethiopian races. Sages say that feelings and thoughts can be hidden but the eyes never lie. The shape of the nose is an external part of the face that does not show a strong expression but sometimes the shape of the nose becomes very important when an extreme nose shape appears, for example 'Jewish Nose'. Overall the shape of the parts on the face is a unified whole that produces facial expressions (*physiognomy*).

In addition to studying the shape and parts of the face, *physiognomy* reveals genetics or heredity, ethnic groups that can reveal information about skin color, hair, eye shape and nose. Behavior related to appearance, personality, and habits such as anger, shame, and joy. Next is the natural environment, for example in the tropics where the sun will affect skin color and possible facial lines, as well as eye shape. The shape of the eyes and eyebrows, these two parts of the face cannot be separated, because as a whole can be used as an indication of feelings, health, and intelligence; or can be grouped as small, medium, and large eyes. Eyes are one part of facial expressions that can express expressions, feelings, and thoughts.

Tickle (2003) states that people with large irises have a tendency to store their feelings more, they do not let emotions influence them in decision making. Their eyes usually look less expressive, but they tend to be calmer and handle situations well even when they are in an emotional state. While people with small irises, and large corneas indicate that they are more emotional and expressive in expressing their feelings and emotions, they can fall in love very easily but can also be very affected by the emotional situation of others.

Individuals with sparkling eyes are usually more approachable, they have a magnetic personality. We will be immediately attracted to them and we can share our personal life with people like this. In contrast, people with low magnetic power usually have experienced conflict or high pressure in their families. The distance between the eyes shows how much tolerance a person has, if the distance between the eyes tends to be narrow, the person usually has a character that has a smaller tolerance than people with wide eye distance.

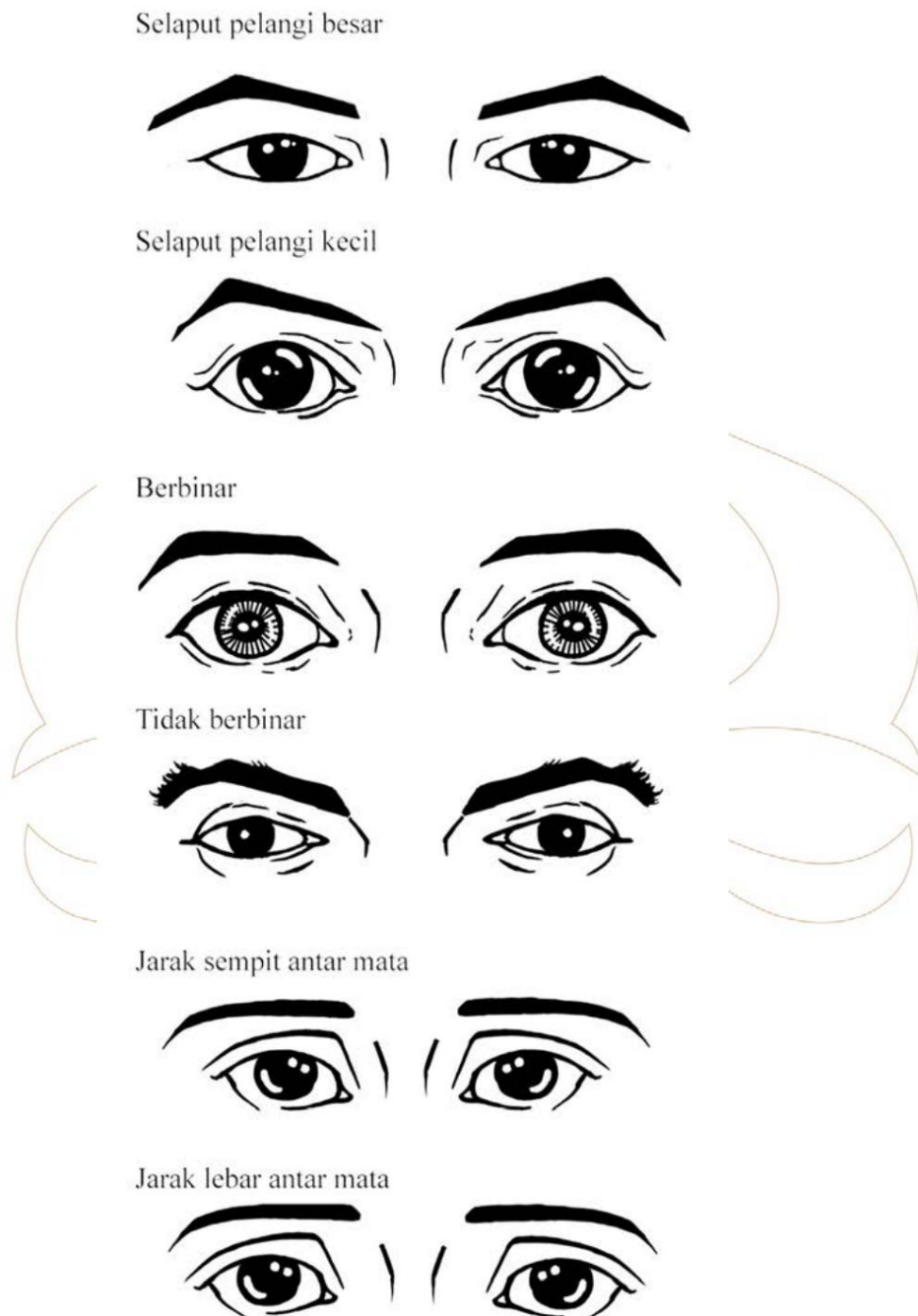


Figure 1. Types of Eyes
(Source: Sulaiman Hakim Lubis, 2017)

People who have closed eyelids are highly analytical characters, and tend to expect their questions to be answered with facts. In contrast to people who have open eyelids, they will prefer to get to the point, and do not like long and rambling discussions or meetings. If the outer corner of the eye is lower than the inner corner, then the character usually has a perfectionist nature, has a high critical perception or tends to see errors and the smallest details, whereas if the outer corner of the eye is higher than the inner corner, the critical perception tends to be lower. and tend to ignore errors.

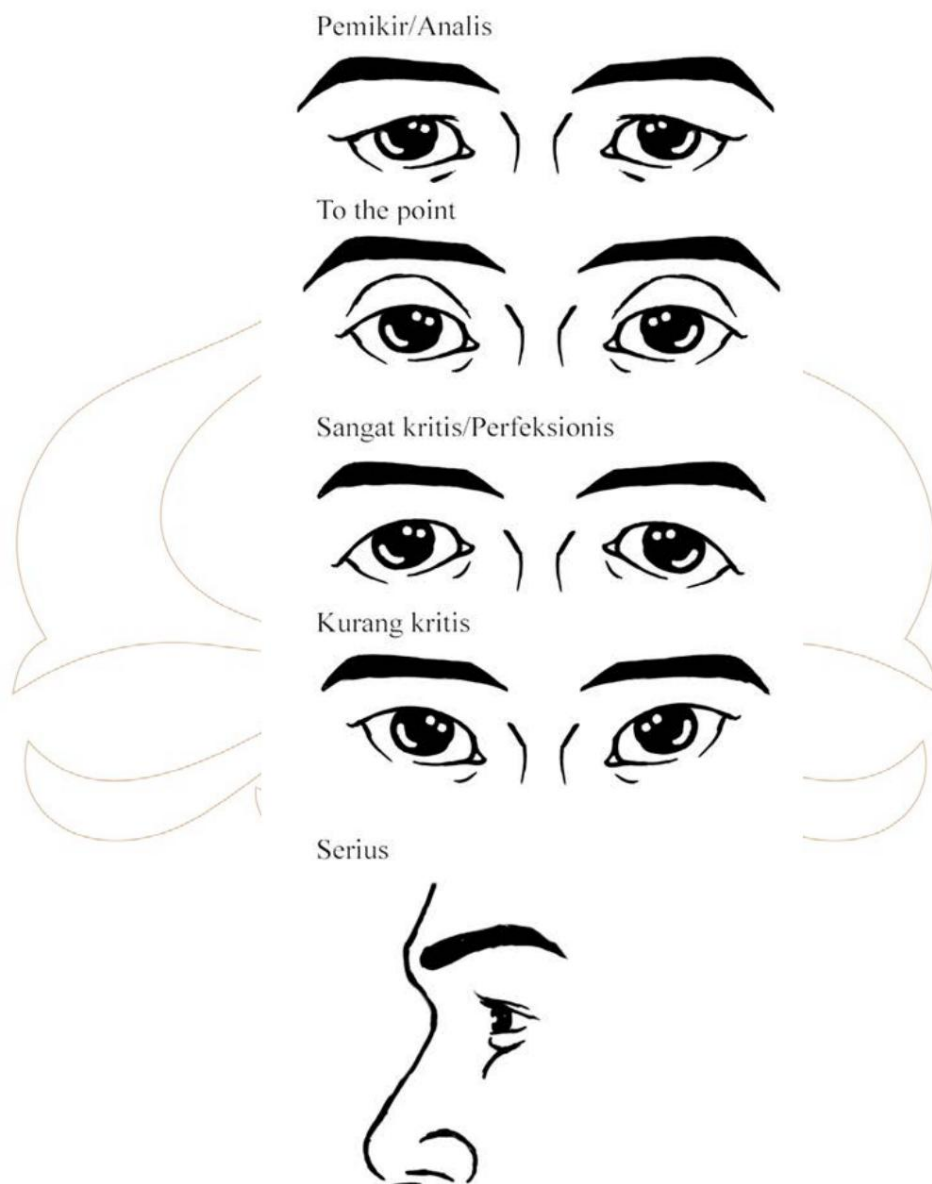


Figure 2. Eye Characteristics
(Source: Sulaiman Hakim Lubis, 2017)

People who have eyes that look inward, are usually very serious in life, work and responsibilities. They get irritated quickly when people seem careless about something. They tend to reflect more and think more deeply. A character who has a high appreciation of design, which is shown in the form of a pyramid located between the center and the edge of the eyebrow, is an indication of an appreciation of the way things are built, building designs, new business plans, room designs, or artistic creations. Such individuals will enjoy the activities of building an organization, designing attractive buildings or landscapes. Appreciation for mechanical things related to uniting parts into a unified whole, as seen from the eyebrows that resemble the shape of a half moon, usually the owner has a natural talent for putting things together, such as assembling equipment, coordinating projects, organizing events, or bringing people together. person.

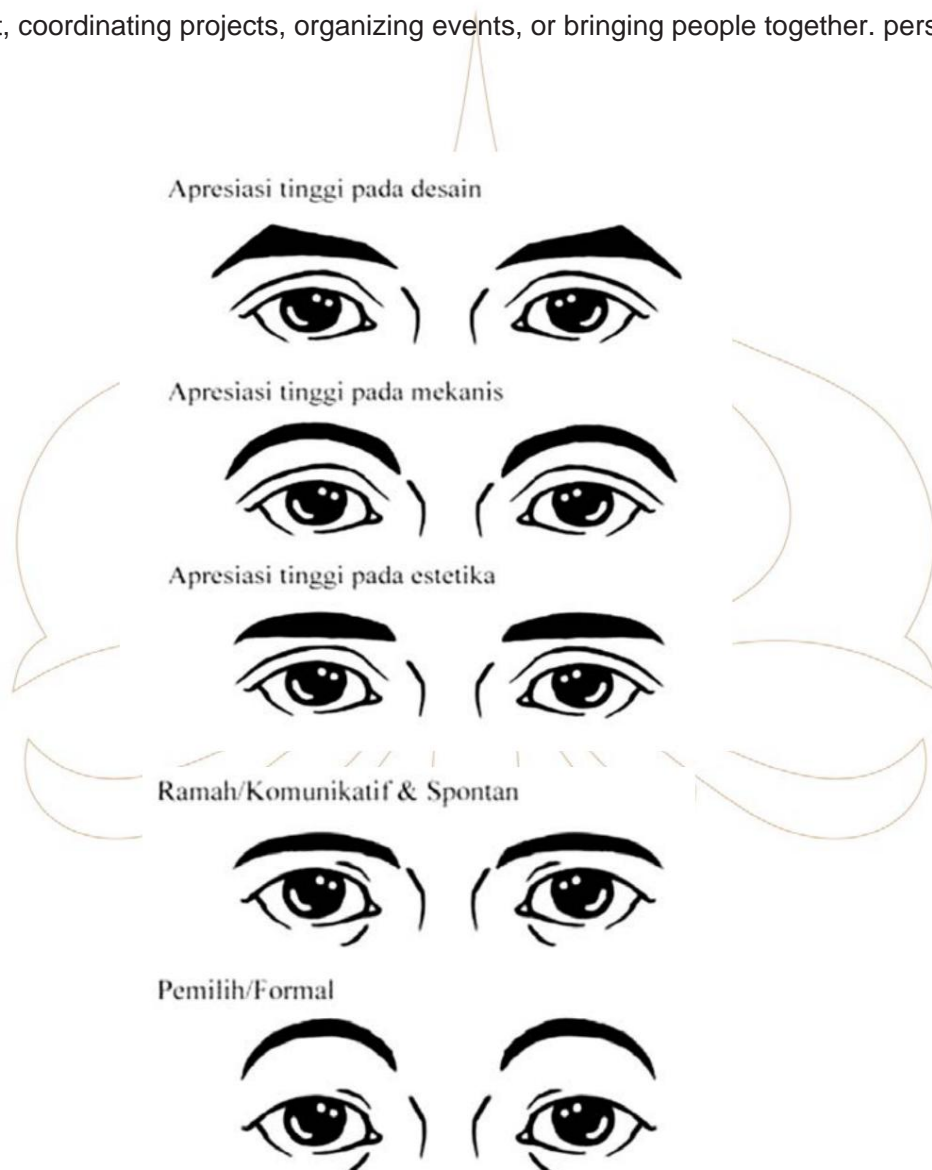


Figure 3. Characteristics of Eyebrows
(Source: Sulaiman Hakim Lubis, 2017)

While people with a high appreciation of aesthetics usually have eyebrows that tend to form a straight horizontal line, these individuals usually have a great understanding of balance and harmony, and enjoy being surrounded by beautiful things, although not necessarily artistic abilities. . They have a real understanding of harmony be it nature, painting or composition, music. They tend to do things that make the relationship more comfortable for everyone, so they're less likely to raise their voices or get emotional.

The distance between the eyes and eyebrows, shows how the individual chooses. If the distance between the eyes and eyebrows, they usually tend to be more selective and careful in responding to actions and thoughts. This kind of person is mostly picky and formal, while people who have eyebrows close to their eyes tend to think and act more spontaneously, and tend to be more friendly with everyone.

While in making character designs, a design is needed that allows the reader or audience to feel the character's personality which is represented by the facial appearance or body shape of the created character. For example, when we see the character of Gru in the *Despicable Me* film, the character of Anton Ego or Skinner in the film *Ratatouille*, even without having to show their movements, we can already know that the personalities of these characters are not friendly. Meanwhile, if we look at the shape of the faces of the *Princesses* at Disney, we can assume that these characters have good and friendly personalities.

Actually, when we look at the characters in animation, some of them have shown compatibility with the characters shown in *physiognomy*, such as personalities who tend to be picky, including choosing friends, often appear in *villain* characters , such as Anton Ego, Ursula, Jafar, or Hades for example.



Figure 4. Examples of *Physiognomy* on the Characters of Anton Ego and Ursula
(Source: Walt Disney, 2017)



Figure 5. Examples of *Physiognomy* on the Characters of Jafar and Hades
(Source: Walt Disney, 2017)

It's just that the placement of these traits tends to be repeated a lot for various *villains*, even though the *villain*'s character doesn't have to be like that, but it has become a *stereotype* in character design. One of the most visible is in the making of the character *Princess* in Disney films, which shows a tendency to portray beautiful and kind characters in the same way, thereby creating the impression of design repetition which results in the appearance of clichéd characters.

From the above study, the diversity of *physiognomy* has the potential to enrich the diversity of character designs in animation. Meanwhile, currently the need to create designs that can properly display the personality in the character designs that are being made is very high, especially to compete with character designs that have appeared and have been successful before.

Results and Discussion

Through a *physiognomy* approach in the character design process in animation, references are made to facilitate the character design process based on the personality you want to embed in the animation. the character.

In the following chart is the *workflow* that needs to be run in using the above approach.



Figure 6. *Physiognomy Approach Workflow*
(Source: Anam Fathoni, 2017)

The chart describes the steps that need to be taken in applying the *physiognomy* approach to the development of animated character designs, namely:

1. Determining the character's personality

In this first phase, the designed character is determined in advance by his personality or personality. Does he have a Sanguine, Choleric, Phlegmatic, or Melancholic personality, or is he a mixed character, for example Sanguine Choleric, Phlegmatic Melancholy, Sanguine Phlegmatic, or Choleric Melancholy.

2. *Breakdown* of character traits

This second phase is very important because in designing a character, these traits will determine whether the character has a strong differentiation or not compared to other characters.

3. Search references for these traits in *physiognomy*

After the character traits are determined, it is necessary to look for facial physical characteristics that represent these traits as mentioned in *physiognomy*.

4. Applying *physiognomy* in character design

When a match between physical characteristics and character traits has been obtained, then the facial physical characteristics are applied to the character design.

Conclusion

Difficulties in determining a new design in character design, can be helped by *physiognomy*, which has a history of sufficient research to serve as a way to understand a person's character. Most character designs have a tendency to repeat existing designs, because they are considered sufficient to represent one or several specific characters. *Same face syndrome* can be treated with an unlimited number of human faces that are very diverse. *Physiognomy* can be a bridge or a solution to the impasse in finding a face shape that can represent the desired character.

Research related to making character designs based on *physiognomy* has the potential to be developed further, considering that this science is found in several parts of the world, such as India, China, and even in Indonesia itself, so it is not only developed in the West. So it is very possible to explore this knowledge from our eastern culture which has high *local wisdom*.

Reference

- Bazzini, D., Curtin, L., Joslin, S., Regan, S., & Martz, D. 2010. "Do Animated Disney Characters Portray and Promote the Beauty-Goodness Stereotype?". *Journal of Applied Social Psychology*, 40 (10), 2687–2709.
- Corson, Richard. 1981. *Stage Make-up*. Sixth edition. Englewood Cliffs, New Jersey: Prentice Hall, Inc.
- Lavater, JC, & Holcroft, T. 1878. "Essays on physiognomy". In *Essays on physiognomy, also one hundred physiognomical rules, and a memoir of the author (15th ed.)*. 1-460.
- Oommen, A., & Oommen, T. 2003. "Physiognomy: A critical review". *J Anat. soc. India*, 52 (2), 189-191.
- Tickle, NR 2015. *How to Quickly Read Faces* (K. Dewi, Trans.; R. Nurraisa, Ed.). Jakarta: Ufuk Publishing House.
- Wade, NJ 2016. "Faces and Photography in 19th-Century Visual Science". *Perception*, 45(9), 1008-1035.
- Wells, SR 2016. *New Physiognomy, Or Signs Of Character: As Manifested Through Temperament And External Forms, And Especially In The Human Face Divine*. SL: Forgotten Books.
- Willis, AE 1889. *Encyclopedia of Human Nature and Physiognomy*. Chicago: Loomis & Co.

Other sources

- Madrid, I. 2015. "Every Female Character in Every Disney/Pixar Animated Movie From the Past Decade Basically Has the Same Face". Accessed on December 1, 2016, taken from https://www.good.is/articles/disney-pixar-women-same-face?utm_source=digg&%3Butm_medium=email