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Research on the Connections Between Emotions and Gratitude

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Abstract: This paper mainly studies relationship between emotions and gratitude. This paper analyzes the relevant data through questionnaires. The three main groups of data are the comparison between females and males, positive emotions and gratitude, and negative emotions with gratitude. It was concluded that the p-value between negative emotions and gratitudes is 0.5071, and between females and males is 0.8548. They are both bigger than 0.05 which means both of them are not significant. As for positive emotions and gratitude, the p-value is 0.0237, which is less than 0.05, so this is significant. The conclusion drawn is there is a relationship between positive emotions and gratitude.

Keywords: positive emotions, negative emotions, gratitudes, high school students

1. Introduction

Emotions and gratitude are the two words that are highly related to our daily life, they can influence us a lot. Emotions are a feeling experience, such as love, happiness, sadness, madness. Gratitude, on the other hand, means the feeling of being grateful and wanting to express gratitude to other people around you. People's emotions will determine how they see the world and how they think about the future, whether we are optimistic or not. Gratitude can help us to feel the kindness of other people and allow us to express our feelings to others, to let them know that we appreciate what they have done for us. Therefore, emotions and gratitudes are the two most important things we need to know when considering our mental health. Emotions can be split into two categories, positive emotions, and negatives. Positive emotions mean that people normally have more good moods, such as happiness, joy, love, and emotions that can make people feel good. On the other hand, negative emotions are emotions such as sadness, depression, anger, and emotions this which make people feel more about the downsides of a thing. As for gratitude, it is the emotion of appreciation and the ability to express it to others.

Why are positive emotions and gratitudes so important in our life? According to the broaden and build theory, positive emotions can help people to develop many skills, such as psychological, intellectual, and social resources. Also there is evidence showing that positive emotions can play a role in leading people to do self-improvement and can motivate the individuals to engage in positive behaviors. As for gratitude, it can be very beneficial. Gratitude is also a kind of positive emotion; like all other positive emotions, it can develop a person's cognition and behavior. A positive mindset can help us have positive emotions toward future difficulties. The main purpose of this current research

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is to find a connection between emotions, either positive or negative, with gratitude, and hope to find a way that we can increase one of them by manipulating the other.

Khorrami [1] stated some possible relations between positive emotions and gratitude. Firstly, gratitude helps brain process other positive emotions, including joy. In other words, gratitude can help us to get more positive emotions. The study shows that if people can practice gratitude for a few weeks, they likely to have more positive emotions such as happiness, joy, excitement. Also, the study has found that gratitude can increase dopamine and serotonin levels in the brains which can make people have more positive emotions [1]. Moreover, the second point that this literature raise is that gratitude can help people to experience long-term positive emotions [1]. Klibert [2] has found that expressing gratitude for positive experiences can help people to savor them [2]. Furthermore, Armenta et al. [3] pointed out that the trait gratitude is associated with experiencing more daily positive emotions and fewer negative emotions, as well as the ability to feel more connectedness and greater social support [3]. An experiment has shown that gratitude can help people to increase life satisfaction and well-being over time. Furthermore, Peng [4] stated that he believes that positive emotions and negative emotions elicited gratitude simultaneously and there are some connections between them [4].

Relating to the previous studies and evidence, the author hypothesize that there is a positive correlation between positive emotions and gratitude, which means people with more positive emotions are more likely to feel gratitude towards other people or experience some positive experiences. These paper use a questionnaire indicating the scales for emotions and gratitudes to see the connection between them. The questionnaire format allowed the author to test the initial hypothesis, as the scores for the two scales for each participant could be calculated and placed on the scatter graph to see the trend of the correlation between them.

2. Method

2.1. Participants

The author use volunteer sampling to choose participants. Relevant characteristics of the participants were age 15 or 16, and in high school. The sample size for this experiment is 34.

2.2. Questionnaire

For the material part, two scales are used to measure the participant's emotion and gratitude. The scale for gratitudes, GRAT, is designed by P.C., Woodward, K., T., and Kolts, R.T. in 2003, this measure participants' level of gratitude. In this scale, the following questions are reversely scored, they are questions number 3, number 6, number 10, number 11, and number 15, as the rest of the questions in the scale on normally scored.

The design is conducted as covariables, both the levels of emotions and gratitudes are measured, this is operationalized by using points to represent each answer. Each question and answers have a corresponding mark, and at the end, all the points are added together according to the scoring standard given by the scale. The second scale used is to measure participants' emotions, PANAS scale, which is developed by David Watson, Lee Anna Clark, and Auke Tellegen practically. This scale is split into two parts, one measures participants' positive emotions and the other part measures the participants' negative emotion. In this scale, questions number 2, 4, 6, 7, 8, 11, 13, 15, 18, and 20 are reversely scored, which means if the total score is high, it represents more negative emotions. For the detailed scales, check the appendix.

The gratitude scale has 20 questions in total and the emotions one also have 20 in total. The gratitude scale is split into four parts, the first part is reversely scored, the second part is lack of a sense of deprivation (LOSD), the third part is simple appreciation (SA) and finally, the last part is the

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appreciation for others (AO). As for the scale of emotions, it is only split into two parts, positive emotion, and negative emotion. Therefore, the author calculates each participant's score for each of these categories and put those data together to form a scatter graph and observe the results.

After collecting all the data from the participants, the authors analyzed the data using the website called GraphPad Prism 9. During data processing, Pearson's correlation was used to compare emotions and gratitude. The p-value is used as the main standard for comparing emotions and gratitude, and the exact value was set at 0.05. This means that if the number is greater than 0.05, the result is not significant. If it is lower, the result the significant. For the comparison between females and males, an unpaired t-test was used.

3. Results

The main purpose of this experiment is to see if there's any connection between emotions and gratitude, the method used is self-report in the format of a questionnaire, and the results follow are the comparisons between positive emotions and gratitudes, negative emotions and gratitudes, boys and girls respectively. The data illustrated by follow figure are calculated by the scores for each scale in the questionnaire for every participant, they are put together to form these results.

Figures 1 are the conclusion graph for positive emotions and gratitude. Figure 1 is a scatter graph drawn according to the score data get from the responses. It can be seen that the line of best fit has a positive correlation, which can indicate that positive emotions and gratitude are positively related to each other and that a higher level of positive emotions will lead to greater gratitude. According to calculating, the p-value gets from positive emotion and gratitude is 0.0237, which is lower than 0.05. This p-value indicates that the result is significant, which means that there is a connection between gratitude and positive emotions.



Figure 1: Correlation between positive emotion and gratitude.

Figures 2 illustrate the readership between negative emotions and gratitude. Figure 2 shows that the line of best fit is slightly negative, but not a lot. The p-value get these two is 0.5071, which means that the result is not significant. The possible reason for this might be that people with a lot of negative emotions can also have a high level of gratitude. People with a lot of negative emotions and thoughts may think that they don't deserve kindness from others, so they feel nervous when receiving help from others. Thus when someone else has given them some help, they will feel extra grateful and have a very high level of gratitude.

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Figure 2: Correlation between negative emotion and gratitude.

For the comparison between females and males, as shown in figure 3. The method used is the unpaired t-test, the p-value is 0.8548, which means that this result is not significant. Also, the average for females and males on the two scales is 49.69 for males and 45.61 for females on the gratitude scale. 43.75 for males and 40.17 for females for positive emotions, 25.56 for males, and 27.56 for females on the negative emotions scale. Although the average for females and males have differences, this is the same statistically.

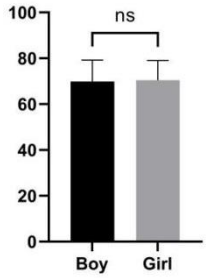

Figure 3: Comparison between males and females.

4. Discussion

The main purpose of this experiment is to see if there's any connection between emotions and gratitude, the method used is self-report in the format of a questionnaire, and the results above are the comparisons between positive emotions and gratitudes, negative emotions and gratitudes, boys and girls respectively. The data illustrated by these figures are calculated by the scores for each scale in the questionnaire for every participant, they are put together to form these results.

4.1. Positive Emotions and Gratitude

Positive emotions and gratitudes are mutual promotions. Gratitude is a kind of positive emotion, it also is the emotion when people feel appreciation for what has happened. In some way, this is also a kind of positive emotion, the ability to feel gratitude can have us process more positive emotions [5].

Moreover, gratitude can be described in another way: using a positive way to feel the world and always be thankful for others [6]. Thus, people with more gratitude, are easier to process the feeling of good things or good moods for example. For example, happiness, joy, and a lot more, because they can easily feel gratitude, so they can feel happiness easier.

Another possible reason might be that people with more gratitude are more optimistic, and optimistic people usually have more positive emotions in their daily lives. When optimistic are facing problems, they are more likely to have positive emotions. Not just when facing difficulties, but also during everyday life, they are more likely to have positive emotions than people with less gratitude [7].

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A conclusion that can be drawn from this paper is that people with more gratitude have more positive emotions, and vice versa, this can also prove the statement stated in the previous relevant literature that gratitude is a gateway to positive emotions.

4.2. Limitation

The limitations of the study are the social desirability and demand characteristics problem when the participants are filling in the questionnaire.

First is the social desirability problem, participants may not put down their real thoughts because they are afraid that their answers won't be favored by others or the researchers [8]. Therefore the answers they put on the questionnaire, might be the answers that they think society is expecting instead of their real opinions.

Moreover, another limitation could be caused by demand characteristics, which means that the participants have already found out the topic of this paper [9]. The title of questionnaire already made it clear that the purpose of this study is to analyze the connection between emotion and gratitude. Therefore, participants may already understand the purpose of this study. They may change their answers to the questions to help the author achieve the desired result.

After all, those false responses may lead to drawing an inaccurate conclusion. To solve these two possible limitations, the author made the questionnaire completely anonymous, no personal information is required apart from age and gender. So, the participants don't have to worry that the author will figure out who they are and judge them based on what they have answered to the questionnaire.

5. Conclusion

There is a positive correlation between positive emotions and gratitude, which is significant. However, as for negative emotions, no significant conclusion can be drawn from exit data. It is the same for the comparison between gender, male and female, it is not significant as well. Therefore, the conclusion is that only positive emotions are highly related to gratitude.

There are some improvements to be done to this article, such as mixing the questions on the gratitude and emotions scales in the questionnaire. Currently, the author split them into half and half, the first 20 question is about gratitude and the second part is about emotions. This way that the participants can notice what each part means, so mixing up is probably better. Apart from these two, the sample size could also be a possible limitation, with only 34 participants as the sample in this study. This number may not provide an accurate or significant result. If the sample size can increase, the results would be more significant.

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