**Abstract**

This study was formed to explore the effects of different types of feedback students receive from teachers and how these comments impact their immediate self-esteem for future assignments. The sample in this study will focus on college students typically between the ages of 18-25. This study uses a creative cognitive thinking assessment, or *The* *Remote Associates Test,* to predict academic achievement and *The Rosenberg Self-Esteem Scale* to test the participant’s self-esteem before and after feedback is given. Results will be based upon a pre-post-test between subjects design manipulation. The participants will give a baseline self-esteem rating followed by the pre- *Remote Associates Test.* Participants will then be given false positive or false negative feedback according to their randomly assigned condition. Post self-esteem and cognitive assessments will be given to determine the effect of the type of feedback on their individual self-esteem and creative cognitive performance.

**Method**

**Participants**

The expected demographic for this particular study is largely college students between the ages of 18-25, currently attending a midwestern state university. Participants will be recruited through a volunteer basis and sign up on a form posted across from the Psychology Department office, Bridges 360. There are not any characteristic requirements or expectations participants must meet for this study. Sixty participants will be randomly assigned to one of the two levels, false positive feedback or false negative feedback, thirty participants in each condition. All participants will be treated according to the ethical principles of the American Psychological Association (APA).

**Design**

This study is a manipulation of a pre-post-test between subjects design. The only independent variable in this experiment is the type of feedback the participant receives. Within the independent variable there are two levels, false positive feedback and false negative feedback. The type of feedback delivered to each participant will be randomly assigned. The first dependent variable is the difference between scores of each participants’ pre and post creative cognitive thinking assessments. This measurement will provide numerical data that represents change in the participants’ performance after receiving false feedback. The second dependent variable is the difference between the individual’s pre and post self-esteem tests.

**Materials**

There will be two pre and post assessments that will be given during this study. The first assessment that will be given is *The* *Rosenberg Self-Esteem Scale* to test the participants’ baseline self-esteem upon entering the study (see Appendix A). The post test for self-esteem will be a similar Rosenberg Scale but with the order of the items adjusted to avoid carryover effect (see Appendix C). *The Rosenberg Self-Esteem Scale* is a 10 item self-report assessment that can be used to test both the positive and negative feelings about oneself based upon a 4-point Likert scale.

Following the self-esteem assessment, a *Remote Associates Test* will be given to test creative cognitive thinking. Each question contains a list of three words that requires the participant to provide a fourth word that relates the other words together. The pre *Remote Associates Test* will consistof 5 “easy” and 5 “medium” leveled questions (see Appendix B). A different set of equally leveled questions has been selected from a test bank for the post *Remote Associates Test* (see Appendix D).

A basic demographic survey will be given to all participants in order to obtain more background information (see Appendix E). Questions will ask about gender, age, and year in school.

The two levels of feedback will be given from a predetermined script (see Appendix F). Participants in the first condition receiving positive feedback will hear the experimenter say, “Congratulations, you have done better than 95% of the other participants! This is one of the highest scores yet! You must have put a lot of thought into this!” Participants in the second condition receiving the false negative feedback will hear the experimenter say, “Okay, these are not the results I was expecting. You only scored higher than 10% of the other participants. I was expecting a much higher score.”

**Procedure**

When the participant enters the study, they will complete the informed consent form. After completing the consent form, participants will take the pretest of the *Rosenberg Self-Esteem Scale*. Once finished, participants will complete the pre-*Remote Associates Test*. These scores will be considered baseline data for the rest of the study. This activity will appear to be “scored” and depending on which condition each participant is assigned, either the false positive or false negative scripted feedback will be given by the experimenter. A posttest of the *Rosenberg Self-Esteem Scale* will be given to test how the type of feedback the participant receives will affect the individual’s self-esteem and self-efficacy. The participant will then be given the posttest of the *Remote Associates Test* in order to investigate how the type of feedback that was received affected the individual’s performance on this particular task. A demographic survey will then be completed to gain general background information about the participants. Finally, the participant will be fully debriefed and informed that they received false feedback about their first cognitive assessment. All questions will be answered. The session should last approximately 20 minutes.

*Appendix A: Pre Rosenberg Self-Esteem Scale*

Instructions: Below is a list of statements discussing your feelings about yourself ***right now***. If you strongly agree, circle **SA**. If you agree with the statement, circle **A**. If you disagree, circle **D**. If you strongly disagree, circle **SD**.

1. On the whole, I am satisfied with myself. SA A D SD
2. At times, I think I am no good at all. SA A D SD
3. I feel that I have a number of good qualities. SA A D SD
4. I am able to do things as well as most other people. SA A D SD
5. I feel I do not have much to be proud of. SA A D SD
6. I certainly feel useless at times. SA A D SD
7. I feel that I’m a person of worth, at least on an equal plane with others. SA A D SD
8. I wish I could have more respect for myself. SA A D SD
9. All in all, I am inclined to feel that I am a failure. SA A D SD
10. I take a positive attitude toward myself. SA A D SD

*Appendix B: Pre Remote Associates Test*

Instructions: Each of the ten problems below consists of three “clue” words. For each problem, please think of a fourth word that relates to each of the other three “clue” words. Write your response on the line alongside each problem.

# Example: Aid / Rubber / Wagon Band

* 1. Cottage / Swiss / Cake
  2. Cream / Skate / Water
  3. Show / Life / Row
  4. Duck / Fold / Dollar
  5. Rocking / Wheel/ High
  6. Fish / Mine / Rush
  7. Flower / Friend / Scout
  8. Pie / Luck / Belly
  9. Opera / Hand / Dish
  10. Boot / Summer / Ground

*Appendix C: Post Rosenberg Self-Esteem Scale*

Instructions: Below is a list of statements discussing your feelings about yourself ***right now***. If you strongly agree, circle **SA**. If you agree with the statement, circle **A**. If you disagree, circle **D**. If you strongly disagree, circle **SD**.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. I feel I do not have much to be proud of. | SA | A | D | SD |
| 2. At times, I think I am no good at all. | SA | A | D | SD |
| 3. I feel that I’m a person of worth, at least on an equal plane with others. | SA | A | D | SD |
| 4. I wish I could have more respect for myself. | SA | A | D | SD |
| 5. On the whole, I am satisfied with myself. | SA | A | D | SD |
| 6. I certainly feel useless at times. | SA | A | D | SD |
| 7. I take a positive attitude toward myself. | SA | A | D | SD |
| 8. I am able to do things as well as most other people. | SA | A | D | SD |
| 9. All in all, I am inclined to feel that I am a failure. | SA | A | D | SD |
| 10. I feel that I have a number of good qualities. | SA | A | D | SD |

*Appendix D: Post Remote Associates Test*

Instructions: Each of the ten problems below consists of three “clue” words. For each problem, please think of a fourth word that relates to each of the other three “clue” words. Write your response on the line alongside each problem.

# Example: Aid / Rubber / Wagon Band

* + 1. Water / Mine / Shaker
    2. Basket / Eight / Snow
    3. Sandwich / House / Golf
    4. Gold / Stool / Tender
    5. Trap / Polar / Claw
    6. Wet / Law / Business
    7. Playing / Credit / Report
    8. Waffle / Lung / Tire
    9. Noise / Collar / Wash
    10. Water / Pen / Soda

*Appendix E: Demographic Survey*

# Specify your gender:

Male:

Female:

Other:

Prefer not to answer:

**Age:**

Prefer not to answer:

# Year in school:

Freshman:

Sophomore:

Junior:

Senior:

Prefer not to answer:

*Appendix F: Feedback Script*

False Positive Feedback:

*“Congratulations, you have done better than 95% of the other participants! This is one of our highest scores yet! You must have put a lot of thought into this!”*

False Negative Feedback:

*“Okay, these are not the results I was expecting. You only scored higher than 10% of the other participants. I was expecting a much higher score.”*