



**CALIFORNIA STATE SCIENCE FAIR
2014 PROJECT SUMMARY**

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| Name(s) Marion Hall-Zazueta | Project Number 34026 |
| Project Title Are Negative Consequences or Positive Rewards More Effective as Motivation? | |
| Abstract Objectives/Goals My objective was to discover if negative consequences or positive rewards are more effective as motivation and whether gender is a factor. Methods/Materials I tested participants' ability to trace concentric circles under time pressure. In the positive reward group I promised participants a raffle ticket for a \$25 gift certificate for every five segments they completed. In the negative consequence group I gave participants 16 raffle tickets for a \$25 gift certificate and told them I would take a ticket back for every five segments they made a mistake in. The control group received neither a reward nor a consequence. Results I found that both males and females completed the most segments on average when they were in the control group, second most in the negative group, and fewest in the positive group. Conclusions/Discussion My hypothesis was partially correct; males do better with negative consequences than with positive rewards. Contrary to my hypothesis, females did slightly better with negative consequences than with positive rewards. Males were more affected by the motivation type. On average they did 11 segments better in the negative group than the positive group and 11 segments better in the control group than the negative group. Females did on average 2.13 segments better in the negative group than the positive group, and an average of 4.37 segments better in the control group than the negative group. The most significant finding is that males show much greater variation in the effects of motivation type than females. | |
| Summary Statement My project tested whether positive rewards or negative consequences are more effective as motivation when compared to a control group. | |
| Help Received I received help revising my procedure from Craig Hall. | |