2009

The Effect of Male Competition and External Reward on Intrinsic Motivation

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The Effect of Male Competition and External Reward on Intrinsic Motivation

Cover Page Footnote
The effects of male competition and external reward on intrinsic motivation were explored. Fifty male university students were asked to build specific patterns out of soma puzzles. The first puzzle set up the various conditions: competition and reward, competition no reward, no competition and reward, no competition no reward and a variation on competition and no reward. Intrinsic motivation was measured by the amount of time participants spent on the second set of puzzles and the number of puzzles completed. The second set of puzzles did not involve competition or reward. None of the results were significant.
The effects of male competition and external reward on intrinsic motivation were explored. Fifty male university students were asked to build specific patterns out of soma puzzles. The first puzzle set up the various conditions: competition and reward, competition no reward, no competition and reward, no competition no reward and a variation on competition and no reward. Intrinsic motivation was measured by the amount of time participants spent on the second set of puzzles and the number of puzzles completed. The second set of puzzles did not involve competition or reward. None of the results were significant.

Intrinsic motivation or doing something on its own for the sake of doing it has fascinated people for a long time. What is it that makes some people work persistently without any reinforcement other than their own satisfaction? This study explored the effects of male competition and external reward on intrinsic motivation.

Deci (1971) found that when individuals were rewarded monetarily for working on puzzles they spent less time working on the same type of puzzles later than participants who were not initially rewarded. College students were asked to try to assemble different shapes using soma puzzle pieces (puzzle made out of seven blocks will be discussed in more detail later), an activity believed to be intrinsically motivating and interesting. They were asked to participate in three trials and within each trial they were asked to assemble four different soma puzzles. In the control condition all three trials did not involve any form of reward. In the experimental condition, during the second trial participants...
were rewarded with a dollar for each puzzle they completed, and then told the researcher had ran out of money during the third trial.

Throughout each trial the researcher left the participant alone in the room with the puzzles and observed the subject secretly. During the third observation the amount of time the participant spent on the puzzles versus engaging in other activities was used to measure intrinsic motivation. This measure was used because it was believed that the participant would spend more time on the puzzles rather than other activities even without an external reward if they felt motivated in completing the puzzles for the sake of completing the puzzles. The study then compared the amount of time individuals in the initial reward and the control conditions spent on the puzzles and found that individuals in the control condition tended to spend more time on the puzzles.

Similarly ten years later, Deci, et al (1981) found that competition served intrinsic motivation in a related manner. The study paired up participants in same sex groups of two (ex, female with female) and then divided the groups into two conditions. These conditions were: the participants being instructed to compete against each other and the participants being told to finish the puzzles as quickly as possible. The participants were unknowingly paired with a confederate of the researcher. The confederate would manipulate their own ability at the task to seem as equally capable as the participant. They did this by keeping the number of times the confederate won vs. the participant won, relatively equal to keep the participant motivated in competition. The confederate had lots of practice with the soma puzzles so this was easy for them to do. Afterwards the researcher said he
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needed the participants to fill out a questionnaire and that he would interview
them both. He ‘interviewed’ the confederate first, so that the participant was left
in the room alone with the soma puzzles for eight minutes. The participant was
observed while in the room and the amount of time spent on the soma puzzle
instead of other activities was the dependent measures of intrinsic motivation.
This study found that competition also decreased intrinsic motivation, more so for
females than males but no significant difference was found between sexes.

Contrary, to the last study Collins, Conti, and Picariello (2001) found that
when children were segregated by sex competition has a different effect on
intrinsic motivation, girls become less intrinsically motivated and boys become
more intrinsically motivated. This study involved children competing for art
supplies, the winner based on the most creative craft. The study also found that
the more masculine a child was the more intrinsically motivated the child reported
to feel when creating a craft. Intrinsic motivation in this study was measured
differently, it was measured by two items on a questionnaire, “How much would
you like to make another paper design just for fun?” and “How much fun did you
have making your design?” The Collins, Conti, and Pircariello (2001) study
demonstrates the possibility that males find competing against one another
intrinsically motivating. This may be why the negative effect of competition on
intrinsic motivation was weaker in the previous study in the male data.

This study will explore the effects of competition and reward on male
intrinsic motivation. Soma puzzles will be used like in Deci (1971) study and
intrinsic motivation will be measured by the amount of time people are willing to
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spend on a second trial non-reward non-competition trial similar to the Deci studies. Sex will be factored out and only male participants will be used, because sex had the varied results in regards to intrinsic motivation and competition. Also according to Collins, Conti, and Pircariello (2001) the difference of the effect of reward on intrinsic motivation may be due to different ways the competition is perceived, such as a form of self mastery, a way to evaluate oneself, versus another form of external reward, winning.

This study will examine the relationship between competition and external reward on intrinsic motivation. It will also examine if different forms of competition, less obvious and more obvious will have a different effect on intrinsic motivation.

Method

Participants

Participants comprised of 50 male post-secondary school students. Most participants attended the University of Western Ontario and Huron University College both located in London Ontario. Some of the other participants attended Fanshawe College also located in London Ontario. Almost all of the participants were undergraduates therefore the mean age of participants would have been approximately 20 years. All types of ethnicities were used in the study although most of the participants were Caucasian or Asian.

Materials

There were several different sheets used in this study. The participants were asked to sign a standard consent form. There were also five instruction
sheets for each condition of part one, they had an example a 3 x 3 cube the participants were asked to build as well as instructions that varied based on condition (see Appendix A).

The booklet with the nine different puzzle designs participants were asked to build in the second part of the study was also important. The instructions on this booklet were on the top of the page were the same for every condition (see Appendix B for the booklet).

To record the time spent on part two of the study a data recording sheet was provided that had a place to write the time that participants had started working on the puzzles, the time they stopped working on the puzzles, the number of puzzles they had completed, as well as a checklist that allowed them to mark off any of the puzzles they had completed (see Appendix C).

The last important sheet used in the data collection was the questionnaire. It was half a page stapled to the back of the data recording sheet, the questions on the questionnaire varied depending on the condition they participants were in. There were five questions in total. The question items regarding competition were: “Did you finish the first puzzle before the other participant?” and on a scale from one to five “I felt competition between me and the other participant” and “I enjoyed the competition between me and the other participant”. There was one question regarding reward “The reward I chose was desirable” also on a scale from one to five. One of the five questions was on used for every condition, “I enjoyed doing the second set of puzzles” and was also measured on a scale
from one to five (see Appendix D). The participants also received feedback forms after they had completed their questionnaires.

The rewards in the study were bought from a dollar store and a convenience store. They consisted of: four deck of cards, four foam footballs, two sets of glow sticks, four packs of gum, four bouncy balls, a pack of AA batteries, two packs of smelly high lighters, a light up paddle racket (ball on a string with a paddle), a snickers bar, a mars bar, and a caramel chocolate bar.

Four sets of soma blocks were used to build the puzzles in this study. Soma blocks are puzzles that involve fitting specific geometric shaped blocks into specific designs. They comprise of seven homemade wooden pieces shaped like the figures in Figure 1. These blocks were made up of 27 1.5 x 1.5 cm cubes that were glued together with wood glue. The different puzzle designs as well as instructions how to make soma cubes were provided by (Köller, 1999 & Nehen, 2004).

Procedure

This study was broken up into two trials; the first one was a priming condition that varied the independent variables competition and reward in five different ways. The second trial was the same for all conditions and measured the independent variable intrinsic motivation.

Participants were approached and asked if they would like to participate in a study. Most of the participants were found during the evening in the cafeteria in the University of Western Ontario’s University Community Center. They were told the study would take approximately 10 – 15 minutes for the first part and then
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Figure 1.
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however long they wished to spend on the second part. People sitting in pairs were used for competition conditions and people sitting alone were used for no competition conditions. They were usually shown the soma blocks and told that their participation would involve building specific shapes out of the blocks. The researcher would try to get as many participants at the same time although she only had four soma puzzles. Typically there would be one competition and two non-competition conditions being measured at the same time.

Once participants agreed to take part of the study they were asked to fill out consent forms and then took part in the first trial. The first trial varied the independent variables; competition and reward therefore depending on the condition they were given different instructions. In the first trial all of the participants saw an example of what the soma cube was meant to look like on their instruction sheets.

In condition one, or the competition and reward condition participants were told that they were competing against one another to finish the soma cube first. It was explained that the winner would get to keep a prize from the reward bag which they were then shown. In condition two or competition and no reward, the participants were told that they were competing against one another to see who could complete the soma cube first. In condition three no competition and reward, participants were told that if they completed the soma cube in under 10 minutes they would get to chose a reward from the reward bag. They were then shown the rewards in the reward bag and asked to tell the researcher when they were done completing the cube. Even if they did not complete the puzzle in less
than ten minutes they were still given the reward, to ensure it was still a reward condition. In condition four, no competition and no reward participants were just asked to complete the soma cube as quickly as they could. In condition five, the variation on competition and no reward nothing was said to the participants about competition. They were not instructed to compete against one another; this was done to try to make the competition optional rather than enforced. They were still asked to complete the cube as quickly as possible. Emphasis on speed which was important for the competition conditions was attempted to be kept consistent to decrease variation of other variables in the study.

The second part of the study was started after the participants had finished making the soma cube in the first part. In competition conditions participants who lost were informed that they could take their time and still work on the soma cube or move on to the second part of the study. They were also reminded to write down the time they started to work on the puzzles and to write down the time when they no longer wished to work on the nine new soma puzzles anymore as well as check off any that they had completed. It was also made clear to participants that they didn’t have to build any of the designs or they could try to make all nine. Participants were then asked to move away from each other and to try to work independently on the puzzles.

Once participants were done the second set of puzzles they were reminded to fill out the questionnaire on the back of the booklet. They were then thanked and offered a feedback form or had the researcher to provide a brief
verbal summary of the study. There were some slight variations to the procedure that will be discussed in the discussion section of this paper.

The analysis of the study was a 2x2 between subjects ANOVA that compared competition and reward on intrinsic motivation. An independent t-test was also used to measure if the different types of competition, obvious and non-obvious had any effect on intrinsic motivation. Intrinsic motivation was measured by the length of time the participants spent on the second set of puzzles. Also an extra 10 minutes were added for every soma puzzle they had completed. This was done to include the intensity of intrinsic motivation of participants while working on the puzzles.

Results

A 2x2 between subjects ANOVA was performed to examine the interactions and main effects of competition and reward on intrinsic motivation (Appendix E).

The test of the main effect of competition showed that the mean of the competition condition (M= 35.75) did not differ significantly from the mean of the non-competition condition (M= 39.65) in regards to intrinsic motivation (F (1, 36) = .14, n.s.).

The test of the main effect of reward showed that the mean of the reward condition (M=35.6) did not differ significantly from the mean of the non-reward condition (M=39.8) in regards to intrinsic motivation (F (1, 36) = .16, n.s.).
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The test of the interaction effect was also found to be not significant (F (1, 36) = .23, n.s.). Cell means were as follows, competition and reward (M = 36.2), competition and no reward (M= 35.3), no competition and reward (M= 35), no competition and no reward (M= 44.3). A post-hoc test of means using the SNK procedure showed that the means of the four groups did not differ significantly (See Figure 2).

<table>
<thead>
<tr>
<th>Condition</th>
<th>Mean (M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>no competition and reward</td>
<td>35.0a</td>
</tr>
<tr>
<td>competition and no reward</td>
<td>35.3a</td>
</tr>
<tr>
<td>competition and reward</td>
<td>36.2a</td>
</tr>
<tr>
<td>no competition and no reward</td>
<td>44.3a</td>
</tr>
</tbody>
</table>

Figure 2 demonstrates results similar to that of the ANOVA and post-hoc, none of the means look to be significantly different. Although condition four no competition and no reward does seem to be slightly higher than the other conditions. Also figure 2 includes condition number five that was not included in the ANOVA, just so that all the means of all the conditions could be compared.

An independent sample t-test was performed to test the hypothesis that non-obvious competition would differ in its effect on intrinsic motivation than obvious competition (see Figure 3). It was found that non-obvious competition (M= 36.3) was not differ significantly from obvious competition (M= 35.3) (t (18) = .92, n.s.).

Figure 3 demonstrates results that are similar to that of the independent t-test. The means of the two different conditions are relatively similar and therefore verify a lack of significant results.
**Intrinsic Motivation**

![Bar Chart]

- **Intrinsic Motivation**
- **Mean Time**
- **Different Conditions**
  - Competition & Reward
  - Competition & No Reward
  - Alone & Reward
  - Alone & No Reward
  - Variation on Competition & No Reward

**Figure 2.** Different conditions effect on intrinsic motivation.
Figure 3. Different competitions affect intrinsic motivation.
Discussion

The results of this study do not resemble the findings of the previous studies used to formulate its hypotheses. Although this is unfortunate, Dr. Cole did mention that many other studies had, had difficulty replicating the findings of the Deci studies (M. Cole, personal communication, April 1, 2009).

The inconsistencies with other studies may be partially what contributed to the different results. Deci (1971) did not pay attention to informing participants in the third trial that the researcher ran out of money. Therefore the participant may have been disappointed and felt as if the researcher was not properly prepared. This may actually be the reason behind the decrease in intrinsic motivation after the reward condition rather than the reward itself. Also in the Deci (1971) study intrinsic motivation was measured as the time spent working on puzzles out of a limited total amount of time, whereas in this study it was measured as a mix of the total puzzles completed and total time spent on the puzzles. Despite these insignificant results when examining Figure 2, the alone and non-reward condition seems to have the most intrinsic motivation, although this result was not significant it shows a pattern similar to the one found in the Deci (1971) study.

Interestingly, the lack of effect in the competition variable may be due to differences in the way competition was created. Deci, et al (1981) kept competition even with the use of a confederate, and this study did not. Therefore the competition created may have been very different. Similarly, in this study the
participants in the competition condition had been sitting together in the cafeteria, therefore were probably friends. The competition the Deci et al (1981) study involved competition between strangers.

Similarly this study may not have found significant results because the Collins, Conti, and Picariello (2001) study was focused on children whereas this study had participants in young adulthood. As well in these two studies intrinsic motivation was measured very differently.

There were several procedural issues that may have lead to difficulties with the measures and creations of the variables. Random assignment was not used to create conditions rather people sitting together were placed in competition conditions; this may have lead to the inclusion of unwanted variables such as friendliness. Another point, is that during the no competition and reward condition participants were given rewards even if they did not complete the puzzle under the recommended time. Although this was done to try to keep speed a constant variable as well as to keep it a reward condition. This was may have negative effects on the participants since they will not take what other researchers say as seriously. Also the consent form had the title of the paper on it "The Effect of Male Competition and External Reward on Intrinsic Motivation" which really gave a lot of information away. Also some participants thought the point of the study was an IQ test and therefore may have continued to work on the second set of soma puzzles for a long period of time because they thought they would receive a measure of their IQ. This was indicated by one participant, and many asked whether or not the cube puzzle was a measure of IQ.
Furthermore, the researcher who collected most of the data was a female this could have influenced the results of the male participants. Lastly, two of the researcher's friends helped collect data. Although they only helped gather a limited amount of participants, approximately seven, this could have added unnecessary extraneous variables.

To see how well the conditions were created some validity checks were added as a questionnaire at the back of the data collection page. Not all participants filled out their questionnaires therefore this is just to provide an idea of how valid the measures are. Participants in the reward conditions ranked the desirability of the reward at $M = 4.33$ out of 5 therefore overall the rewards were found to be desirable. Unfortunately the question asking whether or not the participants in the competition conditions felt competition had an overall score of $M = 3.11$ out of 5 meaning that the participants overall felt unsure of the competition. This was not due to differences in obvious or not obvious competition since the two means were tested and no significant difference was found ($t (18) = .616, n.s.$). The method used to measure the validity of the creation of reward and competition very standard. A five-scale questionnaire addressing how the participants felt about the study was used, this method has been used many times by many different studies therefore can be assumed reliable. Though this particular method had not been used before and had been created by the researcher.
Intrinsic motivation was measured by the amount of time participant's spent working on the nine puzzles in the second part of the study as well as the amount of puzzles they completed. Unfortunately this measure is rather flawed.

The addition of ten minutes for every puzzle completed to the time spent working on the puzzles seemed like a good way to add in how intensely the participants were working on them. Unfortunately it has added the variable of individual ability. Some people are just naturally better at some puzzles, an example is that one participant kept trying but couldn't get any of the nine puzzles done. After attempting for a while, he gave up, asked to keep the sheet with the nine puzzles on it, and asked where he could find some soma puzzles to buy. Therefore although he was extremely interested and motivated to complete the puzzles he couldn't complete any.

Another potential problem with this measure is the various time constraints the participants were under was not taken into account. For instance, some people may have just been taking a quick break from something important, while others may have had an abundance of available time.

Similarly, during the second part of the study many of the participants did not move away from each other and worked together on the puzzles despite being asked to work independently. Also they often finished working on the puzzles at the same time. Therefore, it must be taken into account that other factors such as continued competition and the influence of the other participant had an effect on the intrinsic motivation measure.
Lastly, some participants worked on the soma cube in the competition conditions even though their friend had won and moved on to the second part of the study. This willingness to continue working on the first puzzle despite the removal of competition was not included in the measure of intrinsic motivation.

Furthermore, despite the setbacks of the intrinsic motivation measures, intrinsic motivation and the validity questionnaire item "I enjoyed doing the second set of puzzles," almost had a significant positive correlation; the significance level was exactly .05.

One significant correlation was found regarding the validity questions. These questionnaires are not related to the hypotheses but rather to the validity of variables therefore were not added in the result section of this study. How desirable participants found their reward out of five seemed to negatively correlate with how much the participants enjoyed the engaging in the second set of soma puzzles (r = -.64, p<.05). This interestingly adds support to Deci (1971) study and also adds reliability to the reward condition because it worked somewhat similarly to Deci (1971).

This area of study could be used to help managers use competition and reward in various ways to motivate their workers. Similarly the study could be used in the education environment and could help teachers understand which methods best work to motivate their students.

Future studies may want to explore whether external reward or the disappointment in not receiving a reward had actually decrease intrinsic motivation in the Deci (1971) study. Another interesting research idea could the
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effects of continued competition vs. discontinued competition on intrinsic motivation. Age differences may also be an area that could be explored in regards to competition and intrinsic motivation.

Overall the results of this study were not significant and it did not completed what it had intended to. The study had intended to clarify whether differences in competition would have different effects on male intrinsic motivation as well as compare how competition and reward would interact and influence intrinsic motivation. Despite this the report does provide some limited insight into the area and provides some ideas for future research.
References


Appendix A

Part 1

Please try to arrange these blocks into a 3 X 3 cube.

Instructions Vary Due to Condition

For Condition Number One: Competition and Reward
You will be competing against another person to see who can complete this structure first. Whoever completes the structure first will get their choice reward from the reward bag.

For Condition Number Two: Competition and No Reward
You will be competing against another person to see who can complete this structure first.

For Condition Number Three: No Competition and Reward
If you complete this structure you can choose a reward from the reward bag.

For Condition Number Four: No Reward and No Competition
(no instructions)

For Condition Number Five: No Reward and Variation on Competition
(no instructions)
Part 2

Move away from other people and distractions and try to build as many of these figures as you can! Feel free to stop at any time. Please record the time spent on all of these puzzles overall and how many you completed on the data sheet.

<table>
<thead>
<tr>
<th>The Bed</th>
<th>![Image of the Bed]</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Castle</td>
<td>![Image of the Castle]</td>
</tr>
<tr>
<td>The Pyramid</td>
<td>![Image of the Pyramid]</td>
</tr>
<tr>
<td>The Church</td>
<td>![The Church Image]</td>
</tr>
<tr>
<td>-----------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>The Tunnel</td>
<td>![The Tunnel Image]</td>
</tr>
<tr>
<td>The Snake</td>
<td>![The Snake Image]</td>
</tr>
</tbody>
</table>
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The Gallows

The Scorpion

The Crystal
Appendix C

Data Recording Sheet

Time started on Puzzles Part 2: ______

Time done completing Puzzles in Part 2: ______

Number of Puzzles Completed in Part 2: ______

<table>
<thead>
<tr>
<th>Puzzle</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Bed</td>
<td></td>
</tr>
<tr>
<td>The Castle</td>
<td></td>
</tr>
<tr>
<td>The Pyramid</td>
<td></td>
</tr>
<tr>
<td>The Church</td>
<td></td>
</tr>
<tr>
<td>The Tunnel</td>
<td></td>
</tr>
<tr>
<td>The Snake</td>
<td></td>
</tr>
<tr>
<td>The Gallows</td>
<td></td>
</tr>
<tr>
<td>The Scorpion</td>
<td></td>
</tr>
<tr>
<td>The Crystal</td>
<td></td>
</tr>
</tbody>
</table>
For Condition Number One: Competition and Reward

Did you finish the first puzzle before the other participant? (please circle one)

Yes        Finished around the same time        No        Don't remember

Please circle the value that best represents you

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The reward I chose was desirable</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I enjoyed doing the second set of puzzles</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I felt competition between me and the other participant</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I enjoyed the competition between me and the other participant</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

(Continued on next page)
For Condition Number Two: Competition and No Reward & Condition Number Five: No Reward and Variation on Competition

Did you finish the first puzzle before the other participant? (please circle one)

Yes     Finished around the same time     No     Don't remember

Please circle the value that best represents you

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I enjoyed doing the second set of puzzles</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I felt competition between me and the other participant</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I enjoyed the competition between me and the other participant</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

For Condition Number Three: No Competition and Reward

Please circle the value that best represents you

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The reward I chose was desirable</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I enjoyed doing the second set of puzzles</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

For Condition Number Four: No Reward and No Competition

Please circle the value that best represents you

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I enjoyed doing the second set of puzzles</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Appendix E

Tests of Between-Subjects Effects

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>588.600</td>
<td>3</td>
<td>196.200</td>
<td>.174</td>
<td>.913</td>
</tr>
<tr>
<td>Intercept</td>
<td>56851.600</td>
<td>1</td>
<td>56851.600</td>
<td>50.480</td>
<td>.000</td>
</tr>
<tr>
<td>Reward</td>
<td>176.400</td>
<td>1</td>
<td>176.400</td>
<td>.157</td>
<td>.695</td>
</tr>
<tr>
<td>Competition</td>
<td>152.100</td>
<td>1</td>
<td>152.100</td>
<td>.135</td>
<td>.715</td>
</tr>
<tr>
<td>Reward * Competition</td>
<td>260.100</td>
<td>1</td>
<td>260.100</td>
<td>.231</td>
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<td>97984.000</td>
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<td>41132.400</td>
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a. R Squared = .014 (Adjusted R Squared = -.068)