The Effects of Academic Performance on Future Task Choice in Third Grade Children

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Abstract

This experiment sought to investigate children’s future task choice as a function of success/failure and perceived task difficulty. This study proposed that the effect success or failure has on self-esteem and motivation is mediated by the perceived likelihood of success. 22 third grade children participated in this study; 8 took the “easy” test, 7 took the “moderately difficult” test, and 7 took the “difficult” test. In each condition, at random, half were told they performed above average and half that they performed below average. Upon hearing their results, all were asked if they would like their next test to be easier, the same, or more difficult. A significant interaction between test and performance was found. Analyses revealed that failure on the difficult test was less debilitating to self-esteem and motivation than failure on a perceived easier test. A main effect of performance was also found.
The Effects of Academic Performance
On Future Task Choice in Third Grade Children

The specific purpose of this study is to investigate children’s future task choice as a function of success/failure and perceived task difficulty. This study will look at whether or not the findings of a previous UW-Platteville study (Protocol 9899-315), which looked at college students, extend to third grade children. This study will address present research, which has found that high self-esteem leads to higher achievement motivation (Slade & Rush, 1991), and that success in past events leads to improved levels of self-esteem, while failure lowers self-esteem (Brown & Dutton, 1995). The present study is designed to add an additional level of complexity to the phenomenon, and proposes that the effect success or failure will have on self-esteem and motivation is mediated by the perceived likelihood of success. That is, failure on a difficult task will be less debilitating to self-esteem and motivation than similar performance on a perceived easier task.

Methods

Participants

The participants in this study were 22 third grade children from Mineral Point School District. Both males and females participated in the study, with 3 males and 5 females in the “easy” test group, 3 males and 4 females in the “moderate” test group, and 2 males and 5 females in the “difficult” test group. Participants were treated in accordance with APA ethical guidelines.
Materials

The materials consisted of three tests: an “easy” test, “moderately difficult” test, and a “difficult” test. Each test was ten questions long, and questions were modeled after those found in the second edition of the Weschler Intelligence Scale for Children (WISC II).

Design and Procedure

A 2X3 ANOVA was employed. Each participant was tested individually in the same room. All participants were tested during the school day.

Participants were seated and all were read a brief summary of what they would be doing during the experiment. Specifically, they were each read the following:

The reason you have been taken out of class today is to take a short test. This test is only ten questions long, so it will not take you very long to finish. I am having the children in your class take this test to see how they do on it. I will read each question to you and then give you time to figure out the answer and circle it.

Once this statement was read, participants were told they would receive the first grade (“easy”) test, the third grade (“moderate”) test, or the sixth grade (“difficult”) test. Which test they received was at random and was predetermined based on a set schedule.

Children receiving the first grade test were told, “this test should be easy for you since it is meant for younger children.” Children receiving the third grade test were told, “this test should be moderately difficult for you –it should not be too hard or too easy for you since it is meant for children your age.” Children receiving the sixth grade test were told, “this test should be pretty hard for you; it should be difficult and challenging since it is meant for children older than you.”
It was explained to the children in all three conditions that the experimenter would read each question aloud and give the student time to decide on and circle an answer. After the student completed the test, the examiner left the room for a few minutes to “grade” the test. Upon return, the examiner told the student either that he or she performed above average or below average, depending on the predetermined schedule. It was explained that above average meant doing better on the test than most kids their age. Likewise, it was explained that below average meant that most kids their age performed better on the test.

Once the students understood their performance on the first test, they were told that they would be taking a second test. All participants were asked if they would like their second test to be easier than the one they just took, about the same as the one they just took, or harder than the test they just took. The students’ answer to this question was recorded. Students did not really take the second test. Their choice of how difficult they wanted their second test to be was the measure of how perceived task difficulty and performance affect future task choice. This concluded the study; students were then debriefed as to the purpose of the research and given time to ask questions to ensure that they understood that their tests were not really graded. These efforts were taken to ensure that the self-esteem of students in the “below average” condition would not be negatively affected.

Results

A Univariate Analysis of Variance (ANOVA) was conducted. Performance (above average, below average) x Test (easy, moderately difficult, difficult) was computed with performance and test as between-subject variables. There was a
significant interaction between performance and test ($F(2,16)=6.420, p=.009$) with participants performing below average on the easy test predominantly choosing to take an easier future test and participants performing below average on the difficult test choosing a future test of the same difficulty or more difficulty.

There was a main effect of performance ($F(1,16)=26.255, p<.001$). No main effect of test was found ($F(2,16)=.514, p=.608$).

**Discussion**

The purpose of this study was to investigate children’s future task choice as a function of success/failure and perceived task difficulty. The hypothesis, that the effect success or failure will have on self-esteem is mediated by the perceived likelihood of success, was supported by the data.

It was hypothesized that failure on a difficult task would be less debilitating to self-esteem than failure on a task perceived by the student to be easy. Although the number of data points collected in this study was quite small, significant results were obtained. The students who performed below average on the difficult test were more likely to want to try another test of the same difficulty or even a more difficult test. In
contrast, the students who took the easy test and were told that they performed below average usually expressed the desire to have their second test be easier.

This study should be replicated with a larger sample. In addition, this study should be replicated with other age groups.

This study, especially if it can be replicated with similar findings, will have important implications in regard to the way students are taught and motivated to learn. Presently, students are often given easy tasks due to the belief that if they do well on these tasks, they will experience a boost to their self-esteem, which in turn will motivate them to try harder in school. This study shows that while success on an easy task is a motivator, failure on an easy task has the opposite effect. The findings of this study suggest that educators would be benefiting students much more by giving them challenging tasks. If students know they are trying a difficult task and do poorly, their self-esteem and motivation will not generally be negatively affected. In contrast, if they do poorly on a task that they think should be easy or an accurate measure of their skills, their self-esteem and future motivation will be negatively affected.

It is very difficult to make a task so easy that all students will do well on it. Thus, giving students easy tasks with the hope that all students will do well, have high self-esteem, and be motivated to come to school and learn is highly unlikely. It is likely that those students who need the most motivation to come to school and learn—the students presently struggling—will be the few who do not do well on a task despite the instructor’s attempt to make it an easy “self-esteem builder.” Thus, giving easy tasks to build self-esteem and motivation can hurt the self-esteem and motivation of the students who need it the most.
This study suggests that students are more likely to persist in school with challenging tasks. This study’s data show that students who took the difficult test and failed wanted to try another test of the same difficulty or even a more difficult test. Those who took the difficult test and did well on it were often motivated to try a more difficult one, or at the very least, work at the same difficulty level. Aside from keeping students interested and motivated where school is concerned, giving challenging tasks probably also results in students learning more. Compared to the approach of giving easy tasks to build self-esteem, the approach of challenging students seems like a win-win situation. If a student does well, his or her self-esteem is elevated and he or she keeps working at that level or may even be inspired to try something harder. If a student does poorly on a difficult task, he or she will not feel bad, and will keep trying until he or she succeeds.
Table 1

Mean Difficulty Level Chosen for Second Test by Students After They Were Told That They Performed Above or Below Average on the 1\textsuperscript{st}, 3\textsuperscript{rd}, or 6\textsuperscript{th} Grade Test

<table>
<thead>
<tr>
<th></th>
<th>1\textsuperscript{st} grade test</th>
<th>3\textsuperscript{rd} grade test</th>
<th>6\textsuperscript{th} grade test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above Average</td>
<td>3.0</td>
<td>3.0</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>(.00)</td>
<td>(.00)</td>
<td>(.00)</td>
</tr>
<tr>
<td>Below Average</td>
<td>1.50</td>
<td>1.33</td>
<td>2.00</td>
</tr>
<tr>
<td></td>
<td>(.58)</td>
<td>(.58)</td>
<td>(1.00)</td>
</tr>
<tr>
<td>Total</td>
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<td>2.29</td>
<td>2.00</td>
</tr>
<tr>
<td></td>
<td>(.89)</td>
<td>(.95)</td>
<td>(.58)</td>
</tr>
</tbody>
</table>

\textbf{Note.} Standard deviations are presented in parenthesis.
Figure Caption

**Figure 1.** Mean Test Difficulty Level Chosen (1=Easier, 2=Same, 3=More Difficult) by Students After They Were Told of Their Performance (Above Average/Below Average) on the First Test (1st grade test, 3rd grade test, or 6th grade test).
The Effects of Academic Performance

The graph shows the performance of students in three different grades: 1st, 3rd, and 6th. It compares the number of students above average and below average in each grade. The 1st grade test shows a higher proportion of students above average compared to the 3rd and 6th grade tests, where the number of students below average is higher.
References
