

A Cross Sectional Study on The Effect of Learned Helplessness on Test Taking with Reference to Children of Jammu and Kashmir

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Abstract:

The present study was conducted to examine the effect of learned helplessness on test taking. We prepared two sets of questionnaires, one having very difficult questions and other very easy questions. We found that the students who took the test that begin with difficult questions become easily frustrated and possibly doubt their intellectual ability. This results in the participants missing easy questions when compared with the students who took the test that begin with easy questions. This study can also be applied to other classroom tests and standardized tests where learned helplessness could negatively affect the test scores.

Keywords: Learned helplessness, testtaking, correlation, failure.

1. Introduction:

Learned helplessness (LH) is a term that refers to one being incapable of accomplishing tasks and having little or no control of the environment. It occurs when people attribute negative results to their internal, stable and global factors, leading them to think that they have no control over the situation. LH can also be referred to as a mental state in which an organism is forced to bear aversive stimuli or stimuli that are painful or otherwise unpleasant, becoming unable or unwilling to avoid subsequent encounters with those stimuli, even if they are escapable, presumably because they have learned that the situation cannot be controlled. LH is the belief that there is no use of trying to avoid harm, pain or any other unpleasant situations. In other words, LH means to endure and unwillingly accept the unpleasant stimuli by an organism even when it is avoidable. It refers to the experience with uncontrollable events and associated mal-adaptive passivity. LH in children can lead to an anxiety or depression and it can be especially damaging very early in the life for the sense of mastery over one's environment is an important foundation for future emotional development.

LH can hamper education, a child who fails repeatedly in school will eventually stop trying, convinced that there is nothing he or she can do to succeed. LH has three major components, contingency, cognition and behaviour. Contingency refers to uncontrollability of situation. Cognition refers to attributions that people make regarding their situations or surroundings of which they are part. Behaviour allows individuals to decide whether they will give up or proceed with obstacle set before them. [1]. People experiencing LH have tendency to give up easily or fail more often while doing easier tasks. It is more likely to result from situations where failure is uncontrollable.

2. Literature Review

Gernigonetal [2] conducted a study on failure in controlled and uncontrolled circumstances. They found that failure more likely occurs in uncontrollable circumstances. Stiens-Mieieretal [3] addressed failure in terms of blaming the results on internal or external factors and how the performance was affected by the response. They performed two tests on subjects and rated their performance. They found that the subjects who related the failure to internal causes such as the task was intellectually too difficult for them personally, were inclined to give up than those who attributed their failures to external causes, such as thinking that the test itself had impossible questions. There are many factors which load into the construct of LH. For Example, the type of situation may affect the way that people respond to difficult tasks. The performance of the person is influenced by the factors like anxiety if he is forced to perform in public. In LH situations, performance deficits often result from low motivation due to the beliefs that the person is not in control [4]. LH has an effect on wide cross section of people. Kashdenetal [5] applied the construct specifically to disruptive children. They compared mothers who experienced high social anxiety with mothers having low social anxiety by placing them with an uncontrollable deviant child in an experimental setting. They found that the mothers with high social anxiety would be more distressed after the interaction with the child and as a result they would have many negative feelings. The measures of distress included self-ratings, observed mood ratings, heart rate and blood pressure. In the end the experiment and the experimenter's hypothesis were supported, correct mothers with high social anxiety showed a lower threshold for activated negative emotions such as anxiety, anger, irritability and less positive inter personal engagement. LH can have effect on one type of person more than other. Milichetal [6] suggested that ADHD boys become frustrated more easily when confronted with failure than those without ADHD. Tasks were presented to 23 boys diagnosed with ADHD and 22 boys comprising a control group. The tasks involved solving word puzzles where in one condition the tasks were extremely hard and the others were relatively easy. They found that the boys with ADHD showed an increase in how easily they quit after they solved one particular puzzle. In turn the children diagnosed exhibited responses similar to those of helpless children. They become frustrated more easily and subsequently reported feeling increased boredom and anxiety.

3. Objective

The present study applies the construct of learned helplessness to the domain of test taking and one's perceived intelligence. We studied this phenomenon to assess the degree to which the students would experience frustration during test failure, triggering learned helplessness and to compare the result with a control group of students in the same situation.

4. Methodology:

The present study was conducted by the Department of Clinical Psychology OPJS University Rajasthan in collaboration with Department of Higher Education Govt. of Jammu and Kashmir

4.1 Participant:

Students were randomly selected from psychology classes of BSc (Honours) Psychology from Government Degree College located in Gurez subdivision of Bandipora district of Jammu and Kashmir. The majority of these students were from middle class families aged between 16 to 20 years. A Freshmen-level child development class was used to run a pilot study, prior to collecting data from a freshmen-level general psychology class for the actual study. Students from the child development

course completed the test in its standard format. The students from the general psychology class were randomly assigned to the experimental and control conditions. The participants were assured the responses provided would remain anonymous

4.2 Materials:

Shipley [7] Cognitive Scales were used for this experiment. This test was in the norming process at the time of data collection. The instrument was comprised of total of 88 questions in three sections: vocabulary, Abstraction and Block Patterns.

Vocabulary portion of the test consisted of 50 words in which participant was instructed to identify the words with the same meaning as the original. Four options were provided for each question. Abstraction portion of the test contained 24 items. Students were instructed to generate replies which completed the appropriate sequence of words, numbers or letters. Block Patterns portion of the test contained 14 items. Students were directed to select the most appropriate design pattern that fit the missing block pattern.

4.3 Design and procedure:

The standard format of Shipley Cognitive Scale [7] was first administered to a freshmen-level child development class. Students were told that they were participating in part of the norming process for the instrument and were given 25 minutes to complete the test. ACT/SAT scores were obtained for all the participants in the child development class. After grading the test, the class was divided into two groups by a median split. Group one comprises the students having higher ACT/SAT scores and Group two comprises the students having lower ACT/SAT scores.

A chart comparing the correct and incorrect answer was then generated for each Shipley question by each student ranked from highest to lowest highest and lowest ACT/SAT score. Due to this method we examined each individual question to decide the relative rank order based on the number of participants answering the question correctly or incorrectly and whether the participant was in upper or lower ACT/SAT groups. For example, if most students in both groups provided correct answers to various questions, then they were deemed to be easy. However, if most of the students provided incorrect answers, then the question was considered to be difficult. Ranking was also considered when most of the high ACT/SAT group provided correct answers, while the low ACT/SAT group provided incorrect answers. The final form of the test consisted of 48 easy questions and 40 hard questions. Pursuant to this analysis, the two tests were created for use with the general psychology class and both the tests contained all the Shipley items. Test A began with the most difficult questions and proceeded to the easiest questions. Test B began with its easiest questions and proceeded to the hardest question. Students in general Psychology class were randomly assigned to two groups. Half were given test A and other half was given test B. They were told that the average person is expected to do well on the test and they had 25 minutes to complete it.

5. Result.

In the present study we analysed the data at three levels. We recorded the number of correct answers on easy items, number of correct answers on hard items and total number of correct items. After incomplete data and outliers had been eliminated, the final sample consisted of 41 participants in the test A group and 40 in the test B group. The number of correct answers between students who took hard items first and students who took easy items is shown in table 1 below:

**Table 1 : Number of correct answers between students who took hard items first and students who took easy items first
Sample size = 41, 40**

Level/Test	Mean	Standard Deviation	t (69)
Easy	Test A	48.20	- 4.06**
	Test B	49.10	
Hard	Test A	21.24	4.78
	Test B	16.34	
Total	Test A	70.05	1.38
	Test B	69.80	

Test A- Hard Items before Easy Items

Test B-Easy Items before Hard Items

**P<0.01

Difference on the performance between test A and test B was analysed by calculating t test at each level.

The t value was calculated by using the formula

$$t = \frac{\bar{X}_A - \bar{X}_B}{\sqrt{\frac{(S.D)_A^2}{n_1} + \frac{(S.D)_B^2}{n_2}}}$$

Where

\bar{X}_A = Mean of scores of test group A

\bar{X}_B = Mean of scores of test group B

$(S.D)_A$ = Standard deviation of scores of test group A

$(S.D)_B$ = Standard deviation of scores of test group B

$n_1 = 41, n_2 = 40$

The experimental group (those who took test A) had fewer correct answers on the easy part than the control group (those who took test B) but slightly more correct answers on both the hard portion and entire test. Among the three sets of comparison only the difference on the easy items had reached the statistical level of significance (p<0.01)

Discussion:

The aim of the present study was to determine the extent to which the failure experienced in early part of a test would elicit helplessness in this student, have result in lowered performance on the later part of the test. According to the helplessness in the hypothesis students who had hard questions before the easy questions would tend to give upon the easy questions due to frustration, but their performance on hard questions would not be affected. Our result supported the helplessness hypothesis compared with their performance of those students who took the easy questions first students who had hard questions first scored lower on the easy items.

(t = - 4.06, df = 69, p<0.01) but did at least equally well, if not better on hard items.

To provide evidence to support the helplessness hypothesis we need to rule out the alternative explanation that the students who took hard questions first had spent too much time on hard items and did not have time to finish the easy portion of test. We have two reasons to believe that regardless of the item order students in both groups had enough time to attempt all questions.

1. All students who took hard question first had completed the last section (the easiest questions) of the test.
2. Performance on hard questions was similar in two groups.

The further evidence of helplessness in the students who took test A was further revealed by examining correlation between the easy items missed by the students and hard items missed. Correlation between performance on the easy and hard questions was ($r = 0.17$) for test Group A and it was lower than the correlation in the test Group B ($r = 0.23$). It suggests that something else has contributed to the performance in test A. We believe that our manipulation of item difficulty order had created a negative impact on the student's ability to respond correctly. For decades teachers and test developers have been advised to arrange the test items in the ascending order of difficulty so that the test takers would be motivated by the early successful experience and continue the test. However, very few studies have investigated how difficult items appearing at the early part of the test negatively affect the performance on later questions. In fact, the three item response theory on which the modern computerized adaptive testing (CAT) technique is based assumes independent response among the individuals. Our results suggested the opposite responses on later items can be greatly affected by the experiences especially negative experiences from earlier items.

6. Conclusion

In the present study we conclude that negative experience came from a sheer anticipation of failure in those who took hard items first, because no feedback was given on their performances and the test scores showed that they did not fail on hard items. The perceived failure alone was sufficient to make students feel helplessness and give upon the test. The findings in the present study can be found in the construction of both standardized as well as classroom tests. If the items are selected from the existing item bank, the items not only meet the content objectives but are also arranged in proper order of difficulty. Factual questions are, in general easier and should be placed before conceptual questions. To avoid learn helplessness in respondents, test writers should generate questions which allow students to perform at their normal level and thus ensure the overall validity of assessment.

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8. References

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