

# LEARNING-DISABLED AND THE NORMAL-ACHIEVING STUDENTS' CAUSAL ATTRIBUTIONS FOR THEIR PERFORMANCE OUTCOMES.

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## Abstract

This study explored the learning-disabled and the normal-achieving students' causal attributions of their performance outcomes and the teachers' perception of these students' level of learned helplessness. Twelve teachers (JSS 3 subject teachers) and forty-two students formed the subjects of this study. Analysis of Variance was used in testing the five null hypotheses stated in the study. All the five null hypotheses were rejected because there were statistically significant differences among the groups compared. Teachers perceived their normal-achieving students as being less prone to learned helplessness than the learning-disabled students. The learning-disabled students' ability attributions were less than those of the normal-achieving students. Test completion was found to arouse feelings of happiness for both the learning-disabled and the normal-achieving students and it was also found that the normal-achieving students were more persistent in learning tasks than the learning-disabled. Some implications for counselling are that there is need for effective school counselling to specially attend to the learning-disabled students and pay particular attention to their problems.

## Introduction:

There is a great deal of clinical and descriptive literature on the behavioural characteristics of learning-disabled youths and numerous factors have been postulated by various theorists to explain this class of childhood disorders. Although several attempts have been made to arrive at an acceptable definition, professionals in the field remain quite divided on the nature and etiology of learning disabilities.

Koppitz (1976) described learning disabilities "as a generic term that refers to a heterogeneous group of disorders due to an identifiable or inferred central nervous system dysfunction. Such disorders may be manifested by delays in early development and / or difficulties in any of the following areas: attention, memory, reasoning, co-ordination, communication, reading, writing, spelling, calculation, social competence and emotional maturation".

In this paper, the concept of 'learning disability' as it relates to mental retardation is upheld. Mental Retardation, according to Hilliard and Kirman (1965) refers to subaverage general intellectual functioning which originates during the development period and is associated with impairment in one or more of the following:

a) Maturation (b) Learning (c) Social adjustment.

Individuals who, according to professional evaluation and established criteria, have failed to demonstrate their ability to live up to expectation in the intellectual and social spheres when they are compared with those of their chronological age are referred to as mentally

retarded children. Such retardations may be in physical, emotional, social and intellectual development. According to Koppitz (1976), with the help of intelligent tests, the degree of retardation can be grouped as follows:-

**Levels of Mental Retardation I. Q**

Idiots	0 to 25
Imbecile	25 to 50
Morons	50 to 75
Dull normal	75 to 90

This research work is limited to the 'Dull normal' group in the area of learning. It is during the period of late childhood and early adolescence that the gap between the mentally retarded child and the child of normal average intelligence becomes significantly perceptible. During this period, the teachers acquire an increasing awareness of the deficiencies of the child and begin to react to this awareness. Learning-disabled students have difficulty in using abstractions in solving problems and tend to resort to concrete reference points. They also tend to be relatively poor in the use of verbal symbolization in comparison with their usual level of functioning in the manipulation of non-verbal stimuli. Academic failure may result in not only academic deficits but also in motivational limitations that can interfere with pupils' adaptive functioning in and out of school settings. Zigier (1966) argues that, as a result of repeated failure, retarded individuals have a high expectancy of failure and are outer-directed. The attributional research of Weiner and his colleagues (Weiner, 1972; 1974) and the construct of learned helplessness developed and extensively studied by Seligman (1975) provide a valuable heuristic framework from which one can view motivational and personality effects of repeated academic failure on students.

Weisz (1979) found that mentally retarded youngsters of higher mental age exhibited less persistence, less response initiation and fewer effort attribution for failure than did non-retarded children.

Weiner (1972; 1974) posits that individuals' perceptions of the causes of success and failure influences their expectancies, affect and, ultimately, performance. Moreover, Frieze and Weiner (1971) noted that individuals' history of success affect their attributions for current performance, and that individuals attribute performance to internal, stable factors such as ability. Consequently, if students with a history of failure currently performs poorly on a task, they attribute this performance to lack of ability. In turn, lack of ability attributions results in lowered expectation of future performance, in feelings of shame and sadness, in lowered intensity of performance and in less persistence when performing future tasks (Weiner, 1972; 1974). Consequently, pupils who perceive their failure as due to lack of competence may exhibit motivational characteristics that foster on exacerbate learning problems.

In a somewhat different line of research, Maier and Seligman (1976) and Seligman (1975) argue that exposure to uncontrollable aversive events affects motivational, cognitive and



emotional responses of animal and humans. Seligman (1976) has called this phenomenon learned helplessness. Analogues of escape-avoidance instrumental pretreatment and test tasks, used initially with animals, have been implemented with college-age human subjects. Hiroto and Seligman (1975) reported that non-contingent aversive stimulation during the pretreatment phase resulted in decrements in escape performance during the test phase. Their report also showed that learned-helplessness cognitive pretreatment negatively affected individuals' number of errors, and feelings of anxiety and depression.

Seligman (1975) proposed that learned helplessness is caused by individuals' expectancy of independence between their responses and outcome. However, Abranason, Seligman, and Teasdale (1978) and Miller and Norman (1979) point out that this causal factor cannot adequately account for the data. Miller and Norman (1979) have also proposed an attributional reformulation of human learned helplessness. Drawing on the work of Weiner and colleagues in the area of achievement motivation, they posited that individuals' causal attributions for aversive events and their behavioural consequences can better account for the effects of learned helplessness. Learning-disabled students have a history of failure. The attributional research of Weiner and his colleagues may be interpreted to suggest that this performance history results in the development of attributions leading to lowered expectations of future performance, negative effect, and less persistence when encountering difficult tasks. These behaviors tend to reflect learned helplessness, as noted by Seligman (1976) and others.

#### **Statement Of Problem:**

It is generally assumed that the learning-disabled students would attribute their below-average academic performances to the failure of significant others in their lives to render the necessary help while the normal achieving student would view their academic performance as being the outward expression of their innate ability. However this assumption may not always be true. Of great importance is the teachers' perception of the students and the encouragement given to them in cause of learning. When the students are allowed to have a sense of self-worth then learned-helplessness could be reduced. Ability attributions of the performance outcomes of the learning-disabled and the normal-achieving students could be different.

#### **Purpose Of Study:**

The purpose of this study was to examine learning-disabled students, (as compared with normal achieving students' attribution) of reasons for their performance outcomes. To carry out the task, the researcher sought for the effect of the performance history of both learning-disabled and normal-achieving students and their current performance in the area of completion or non-completion of a coding task (attributional antecedents) on the students' attributions, expectancy shifts, affective reactions and persistence (dependent variables).

#### **Research Questions:**

Five research questions were raised and this study attempts to find answer to each of them.

1. Will there be any significant difference between the ability attributions of the performance outcomes of the learning-disabled students and the normal-achieving students?
2. Will there be any significant difference between the satisfaction of the learning-disabled subjects who were allowed to finish the test and satisfaction of those who were not allowed to finish the test.
3. Will there be any significant difference between the feelings of satisfaction of the normal-achieving students who were allowed to finish their test and those who were not allowed to finish the test.
4. Will there be any significant difference between the level of persistence of the learning-disabled students and that of the normal-achieving students.
5. Will there be any significant difference between teachers' perception of learning-disabled students and normal-achieving students' learned helplessness.

#### Hypotheses:

In order to answer the research questions, the following five null hypotheses were tested at .01 level of significance:

1. There will be no significant difference between the ability attributions of the performance outcomes of the learning-disabled students and the normal-achieving students.
2. There will be no significant difference between the feeling of satisfaction of the learning-disabled subjects who were allowed to finish the test and the feelings of satisfaction of those who were not allowed to finish the test.
3. There will be no significant difference between the feelings of satisfaction of the normal-achieving students who were allowed to finish their test and those who were not allowed to finish the test.
4. There will be no significant difference between the level of persistence of the learning-disabled students and that of the normal-achieving students.
5. There will be no significant difference between teachers' perception of learning-disabled students and normal-achieving students' learned helplessness.



## Method

### *Subjects:*

The sample was made up of 42 JSS 3 students (24 boys and 18 girls) from the same secondary school in Lagos. Twenty-one students (12 boys and 9 girls) were selected from the learning-disabled group (dull normal) while twenty-one students (12 boys and 9 girls) were chosen from normal-achieving group as indicated in their school's cumulative record of their academic performance from JSS 1 to 3. The subjects' ages ranged from 13 to 17 years for the learning-disabled group and 12 years to 15 years for the normal-achieving group. The mean age for the learning-disabled was 15 years while the mean age for the normal-achieving was 13½ years.

The subjects were divided into 3 groups as follows:-

Group 1: Task completion group consisting of 14 students, (7 learning-disabled: 4 boys and 3 girls and 7 normal-achieving students: 4 boys and 3 girls).

Group 2: Non-completion of task group consisting of 14 students (7 learning-disabled: 4 boys and 3 girls and 7 normal-achieving students: 4 boys and 3 girls).

Group 3: Control group consisting of 7 learning-disabled (4 boys and 3 girls) and 7 normal-achieving students (4 boys and 3 girls).

### Research instruments

1. *Questionnaire for teachers:* This questionnaire was made up of 10 items concerning the students' response initiation and persistence when presented with academic tasks. The subject teachers were asked to rate each student regarding each of the 10 items on the questionnaire on a 4-point Likert scale with 1 indicating that the behavior never occurred and 4 indicating that the behavior frequently occurred. This was to measure the frequency of engaging in learned helplessness. The possible range of ratings was from 10 to 40, with 10 representing never engaging in learned-helplessness behavior and 40 indicating frequently engaging in learned-helplessness behavior. The test-retest validity of this scale was 0.86 while its internal consistency was 0.81.

2. *English language test (objective):* Groups 1 and 2 (made up of 14 students each, totalling 28 students) were given a 50 item-objective test in English Language.

3. *Attribution scale:* This scale was made up of attributional statements based on Weiner's (1972) model. Statements reflected the following attributional dimensions:

(a Smart/not smart enough (Global ability).

- (b) Good/not good at answering objective questions in English Language (Specific ability).
- (c) Tried hard/did not try hard enough (Effort).
- (d) The objective test was easy/the objective test was difficult (Difficulty).
- (e) Lucky/unlucky (luck).

4. *Instrument for measuring expectancy:* A 10-point scale on sheets of paper was made available for the subjects to state how well they expected to do in the test by circling a number from 0 to 10. If a subject circled zero, it indicated that he was sure he would perform poorly; if he circled 5, then he was unsure of his performance outcome, whereas if he circled 10, it indicated that the subject was very sure that his performance outcome would be good.

5. *Instrument for measuring affect:* Like the instrument for measuring expectancy, 10 point scales were used to determine how surprised, happy/sad, and proud/ashamed subjects felt following their performance in the objective test.

6. *Instrument for measuring persistence:* This was made up of 30 index cards, with one short sentence on each of the index cards. It was adapted from a procedure used by Chapin and Dycke (1976) in which these researchers worked at increasing their subjects' task performance. The students were asked to read aloud from index cards only one sentence at a time. The subjects were not told the total number of sentences, but they were given the freedom to stop reading when they felt like stopping.

**Design And Procedure:** The researcher visited the selected secondary school to seek the permission and co-operation of the school authorities. A suitable period for the exercise was fixed after identifying the required subjects with the help of the JSS 3 class teachers. With the co-operation of the JSS 3 teachers, the researcher met with the students for about two hours during the co-curricula activities period to administer the research instruments. The researcher had to meet the Subjects twice because of the persistence measure which formed the second session. The 21 students with learning-disability and the 21 students who were normal-achieving students were randomly assigned to the 3 groups consisting of two experimental groups and one control group.

The questionnaire for teachers was the first instrument administered to the JSS 3 subject teachers, and it was after this that the researcher concentrated on the students that made up the research's Subjects.

*First session with the Subjects:* The English Language objective test was administered to Groups 1 and 2. The subjects were instructed to work quickly without making mistakes. Subjects in Group 1 (the task completion group) were allowed to complete all the items during the test trial, while subjects in Group 2 (the non-completion of task group) were not allowed to finish. They were stopped after attempting between 20 and 25 items. In administering the attribution scale, the subjects were asked to indicate how important each of the 5 attributions were in determining their performance outcome. They were to indicate in front of each item whether it was "very important", "important", "not very important", or "not important at all". A numerical value of 1 was recorded for a "not very important", 2 for "not important", 3 for



"important" and 4 for "very important".

The subjects' expectation for future performance on another objective test in English Language was measured (as earlier explained under the sub-topic, "Instrument for Measuring Expectant")

The procedure for measuring 'affect' on the part of the subjects included specific directions, such as "How surprised were you after the test?". "If you are extremely surprised, circle 10 or any of the high numbers, but if you are not surprised at all, circle a low number close to zero or 1. If you are not sure or your feeling then you can pick 5".

The next one was; "Are you feeling happy or sad?". "If you are feeling very sad, circle a very low number like zero or 1; if you are not sure, circle 5, but if you are very happy, then circle a high number like 8,9 or 10". The third question asked was: "Are you feeling proud or ashamed? If you are feeling very proud, circle a high number like 10 or close to it, but if you are not sure of whether you are feeling proud or ashamed, then you can circle a middle number like 5".

**Second Session:** The measuring of persistence was based on the number of sentences which a student read out before asking the researcher to stop.

The sentences were presented one at a time with the following instructions. "Listen, I am now going to give you a series of sentences which I want you to read out aloud. You are free to tell me to give you another sentence to read or to stop giving you any more sentences to read. Now here is the first sentence". (The index cards containing the sentences were then given to the students one by one).

Subjects were told that they did well on all the tasks given them after they had gone through the persistence task. They were told not to discuss the experiment with others, especially the persistence task, which they had responded to one by one.

The control group subjects participated in the reading persistence task only.

Table 1:

Table Showing the Experimental Design

	Groups	Sample Size	Boy	Girls	English Language Objective Test	Persistence Test
TASK COMPLETION GROUP	Learning-Disabled Students	7	4	3	Yes	Yes
	Normal-Achieving Students	7	4	3	Yes	Yes
NON-COMPLETION OF TASK GROUP	Learning-Disabled Students	7	4	3	Yes	Yes
	Normal-Achieving Students	7	4	3	Yes	Yes
CONTROL GROUP	Learning-Disabled Students	7	4	3	No	Yes
	Normal-Achieving Students	7	4	3	No	Yes
	Total	42	24	18	28	42

\* Yes means participation.

NO means non-participation

### Results

In testing null hypothesis I (which stated: "There will be no significant difference between the ability attribution ratings of the learning-disabled students and those of the normal-achieving students") the results of the Analysis of Variance revealed, among other results, that there was a significant difference in the ability attribution ratings of the learning-disabled and that of the normal achieving students. Hence the null hypothesis I was rejected ( $F = 17.94$ ;  $P < .01$ ). Table 2 below shows the means and the Standard Deviations



**Table 2**  
**The Standard Deviations (Sd) of the Means (M) by the Attribution Ratings**

	GR	Ability		Test difficulty		Luck		Effort	
		M	SD	M	SD	M	SD	M	S
TEST COMPLETION	Learning Disabled	3.0	1.2	3.2	1.1	2.5	1.3	3.2	1.5
	Normal Achieving	3.6	1.8	3.1	1.4	2.6	0.9	3.4	1.3
NON COMPLETION OF TEST	Learning Disabled	2.9	1.3	3.3	1.3	3.0	1.8	3.1	0.9
	Normal Achieving	2.4	1.5	3.5	1.6	2.9	1.5	3.8	1.1

In testing null hypothesis II (which stated: "There will be no significant difference between the feelings of satisfaction of the learning-disabled students who were allowed to finish their test and those who were not allowed to finish the test") and hypothesis III (which stated: "There will be no significant difference between the feelings of the normal-achieving students who were allowed to finish their test and those who were not allowed to finish their test"), the results of the Analysis of Variance showed that both learning-disabled and normal-achieving students who were allowed to complete their test felt greater happiness than those who were not allowed to complete their test. For the learning-disabled,  $F = 6.32$ ;  $P < 0.1$ , while the normal-achieving recorded  $F = 7.19$ ;  $P < 0.1$ . These two null hypotheses were therefore rejected. Table 3 shows the means and the Standard Deviation for these groups

**Table 3**

**The Means (M) and the Standard Deviations (Sd) of the Learning Disabled and the Normal-achieving Students Affect Ratings Following Completion/completion of Test.**

	Groups	Happy/Sad		Pride/Shame		Surprise	
		M	SD	M	SD	M	SD
TEST COMPLETION	Learning-Disabled	8.7	1.8	7.4	1.7	2.9	1.3
	Normal-Achieving	9.3	2.2	8.0	1.5	3.1	1.0
NON-COMPLETION OF TEST	Learning Disabled	3.5	1.9	2.9	2.4	4.2	0.8
	Normal Achieving	5.4	1.6	3.1	1.8	5.5	1.1

In testing null hypothesis IV (which stated) "There will be no significant difference between the level of persistence of the learning-disabled students and that of the normal-achieving students", the results of the Analysis of Variance showed that the normal-achieving students attempted more sentences than the learning-disabled students. Since  $F = 5.98$ ,  $P < .01$ , the null hypothesis IV was also rejected. The means and the Standard Deviations can be found in Table 4.



**Table 4**

**The Means (M) and the Standard Deviations (Sd) of the Number of Sentences Attempted by the Learning Disabled and the Normal Achieving Students**

TEST COMPLETION	GROUPS	M	SD
	Learning-Disabled	14.7	3.8
	Normal-Achieving	17.0	3.1
Non-COMPLETION OF TEST	Learning-Disabled	13.7	3.4
	Normal-Disabled	15.8	2.9
CONTROL	Learning-Disabled	12.3	3.5
	Normal-Achieving	16.5	3.2

In testing null hypothesis V which stated: "there will be no significant difference between teachers' perceptions of the learning - disabled and their perceptions of the normal-achieving students" learned helplessness, the data collected from the teachers' rating were analysed by a one-way Analysis of Co-Variance (ANCOVA) design, for the learning-disabled and normal-achieving subjects. The results showed that there was a significant difference, and so null hypothesis V was rejected ( $F = 18.8, P < .01$ ) as shown in Table 5 below.

**Table 5**

**Teachers Perception of Their Students**

Groups	Mean	S.D	F	P
Learning-Disabled	26.3	5.8	18.8	.01
Normal-Achieving	21.2	5.5		

## Discussion And Conclusions

From the results of this study, normal-achieving students viewed their ability as being the most important factor in the determination of their performance outcomes than the learning-disabled did view their own ability.

Both the learning-disabled students and the normal achieving students felt greater happiness as a result of their completion of the test than when they were not allowed to complete their test. This agrees with Hilliards and Kirman's (1965) finding that task completion serves as a positive reinforcement for students. In support of the finding of this study regarding the teachers' perception of the learning-disabled as being more prone to learned-helplessness, it was further found that the learning-disabled students were less persistent and, therefore, chose to stop reading the sentences on the index cards earlier than the normal-achieving students. It was also found that teachers perceived the learning-disabled students as being more prone to engage in Learned-helplessness than the normal-achieving students. This finding supports Wien (1983) and Abosi (1988) who reported that learning-disabled students were more likely to demonstrate learned-helplessness than their counterparts without learning disability.

### Recommendations:

Since some of the causes of mental retardation include heredity, mother's age (below 20 or above 40 years at time of birth), malnutrition during pregnancy, maternal diseases at the prenatal stage, drug abuse by the pregnant mother, uncontrolled exposure to X-ray radiation. Too many previous pregnancies (Rh - factor: Rh positive foetus is exposed to great danger with Rh negative mother during birth especially after the first child), cigarette smoking and excessive consumption of alcoholic drink by the pregnant woman. There is a need for guidance and counselling for mothers to be, women of marriageable age to guard against these problems.

The education of the Learning-disabled child should be geared towards cognitive, affected and psychomotor development Anumoye (1981) identified some objectives of educational programme that should be provided for learning-disabled children and the youths, which includes:-

- acquisition of some relevant academic skills;
- development of satisfactory relationships;
- adequate personal, social and physical competence;
- acquisition of desirable habits,
- appropriate use of leisure time and acceptance of responsibilities; and
- attainment of vocational proficiency.

Greater attention should be paid also to educational programmes that can facilitate persistence. The teaching material should be adopted to the level, interest and capacities of learning-disabled students. The fixation of desirable habits takes longer time and requires more repetition by learning-disabled students. In most cases, only the simplest generalization can be achieved by these learning-disabled students, but through effective counselling and guidance for these students, they will be able to perform better in their academic tasks and engage in useful activities.



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