

## Effects of Cognitive Restructuring Therapy on Achievement Goal Orientation of Schooling Adolescents

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**Abstract.** Contemporary effort at behaviour modification is targeted at changing negative and faulty cognitions, this study therefore sought to find out the effects a psychological intervention such as cognitive restructuring therapy would have on achievement goal orientations of secondary school students in Bayelsa State, Nigeria. To investigate this, a non-randomised control group pre-test and post-test quasi-experimental research design was implored. The sample of the study consisted of 109 Senior Secondary Class2 (SS2) students drawn from 4 secondary schools from two educational zones in Bayelsa State. Two schools were randomly selected from each educational zone and an intact class was selected from each school. Simple random sampling was used to determine the schools to serve as experimental and control groups. A research instrument namely; Achievement Goal Orientation Questionnaire (AGOQ) was used for data collection. This was administered as pre-test and post-test. Cognitive Restructuring therapy (CRT) was administered as treatment and this lasted for 8-weeks. The data collected were analysed, using means to answer the research questions and ANCOVA to test the hypotheses at 0.05 level of significance. The result showed that CRT was effective in reducing negative goal orientations of students while positive goal orientation scores were increased. These changes were all significant. Based on these findings, it was recommended amongst others that CRT be adopted in secondary schools to modify negative cognitions and behaviours of students.

### 1. Introduction

The personal development of a student can be affected by the type of achievement goals he or she exhibits. Achievement goals should bring about lifelong education but this cannot be achieved if faulty goal orientations are adopted. Achievement Goal Orientation is used to describe the mindset behind achievement activities. McGrew<sup>[1]</sup> describes achievement goal orientation as a person's set of beliefs that reflect the reasons why he/she approach and engage in academic or learning tasks. In the same vein, Akeneme and Ngwoke<sup>[2]</sup> describe achievement orientations as simply the reasons why people do what they do in relation to achievement. These reasons, they opined are influenced by the beliefs, values, knowledge, attitude and practices prevalent in the contemporary society. In addition, Donald<sup>[3]</sup> opines that the way we design our working and learning environments can change people's motivation for achieving important tasks.

The researcher as a teacher has observed that some students want to pass their examinations and get certificates but they do not want to learn. Few students put in effort in order to learn and master the tasks at hand. A lot others are concerned only about passing their examinations and getting their

certificates. Such students have a desire for public recognition of performance and a need to avoid looking incompetent (failing). To such students, learning for learning sake and acquisition of knowledge is not their utmost interest. So far, these categories of achievement orientations have been identified by the researcher with regards to students. Kaur, Singh and Kaur<sup>[4]</sup> in their study on university students achievement orientation, reported that university students had different achievement orientations. Similarly, Elliot and Dweck<sup>[5]</sup> in their study of children's response to failure on task, developed two types of goal orientations namely; mastery orientation and performance orientation.

Mastery orientation according to Hutchins<sup>[6]</sup> is characterised by a person's desire to improve his or her abilities and master the tasks he/she performs for his or her own benefit. A person who is mastery oriented is more concerned with the grasp he or she has on the task at hand than on appearing superior to his or her peers. Performance orientation on the other hand is characterised by a person's desire to achieve a positive evaluation of his or her current abilities and performance from others (Hutchins,<sup>[6]</sup>). Therefore, a person who is performance oriented has a strong desire to appear superior to his or her peers.

Elliot<sup>[7]</sup> and Brophy<sup>[8]</sup> further distinguished between performance-approach and performance-avoidance goals. To them, performance-approach describes a student who views him/herself as having a good deal of ability and wishes to measure him/herself against others performance hence, demonstrating their ability. Performance-avoidance on the other hand describes one who views himself as lacking ability and therefore wishes to avoid public demonstration of achievement that would confirm their lack of ability. Such students according to Was<sup>[9]</sup> in order to protect their self worth, adopt failure-avoiding strategies such as weak efforts, avoiding academic risks, setting unrealistically high or low goals, claiming not to care and procrastination.

In a study by Was<sup>[9]</sup>, he reports that when adults in continuing education courses displayed mastery goals, there was a positive impact on learning outcomes while adults who displayed performance goals had negative learning outcomes. Such students according to Was were apt to become frustrated and defensive in the face of failure and attribute success and failure to more external factors such as luck, task difficulty and an uncontrollable lack of ability, this supports the researchers' supposition that educational attainments of Nigerian students who adopt such goals (performance goals) are greatly impaired.

Research also shows that adoption of mastery goals leads to greater intrinsic motivation as opposed to performance approach or performance avoid which is associated with external motivation. (Elliot & Church<sup>[10]</sup>). One area where this can be seen as important is in the area of curriculum design. When designing learning environments for students, it is important to create opportunities that promote learning goals as opposed to performance goals. One possible implication for educators is the need to emphasize knowledge-centered classroom environments that encourage "doing with understanding", (National Research Council (NRC)<sup>[11]</sup>).

Cognitive restructuring is an umbrella concept comprising any behaviour modification technique or behaviour therapy procedure that attempt to alter the manner in which clients think about life so that they change their overt behaviour and emotions. Nwankwo<sup>[12]</sup> conceptualised it as the changing or restructuring of the undesirable mental processes or cognitions (covert behaviours) of an individual so that he will behave in a socially and personally desirable way.

Cognitive behavioural therapies can be defined as those interventions with the core assumptions that what individuals think directly impacts how they feel and what they do (Graham,<sup>[13]</sup>). If a school psychologist can re-educate students to confront their dysfunctional thoughts, then

consequently symptoms of emotional distress and dysfunctional behaviours will be reduced. School psychologists utilizing CBT give strong significance to the conscious thought processes of their students, place emphasis on the present, give homework for the students to work on between sessions or groups, and assess the efficacy of the intervention to make changes as the relationship progresses (Graham).

At the heart of the classroom, group, or individual therapy experience is the positive relationship the school psychologists builds with the student(s). Interventions utilizing CBT are dependent upon an appropriate cognitive developmental level, hence, a greater use of behavioural interventions may be appropriate with students under the age of eight or nine years old (Graham). Some of the aspects of CBT which make it appropriate for use in schools are the relatively small number of sessions needed, the psycho-educational aspects of Utilizing Cognitive Behaviour relationship, and the transparency of the treatment plan between the therapist and student.

CBT interventions are psycho-educational, teach students strategies for controlling and changing personal-social behaviours, positively affect cognitive and metacognitive functioning, enhance organizational and learning skills, and teach students strategies to overcome anxiety and other barriers to success. A number of procedures that come under cognitive restructuring such as confrontation, corrective information, thought stopping, home work, to mention a few have been found to be effective in addressing cognitively-oriented behaviour problems like depression, anxiety, marital problems, stress management etc. (Corey <sup>[13]</sup>).

For the purpose of this study, cognitive restructuring describes the process of learning to refute cognitive distortions or fundamental faulty thinking with the goal of replacing such irrational beliefs with more accurate and beneficial ones. CRT can bring about a change in the goal orientation of students. An example is when a student sets a goal such as “I must pass this exam to make my parents happy”, the student will go to any length to achieve it including examination malpractice just to please the parents. In such a situation, Cognitive restructuring can be used to help the student reframe the goal to a more achievable and realistic one such as “if I study very hard, I will pass this exams and my parents will be happy with me”. The prediction is that if this therapeutic technique is well applied, students might become conscious of the negative values and beliefs underlying their actions and replace them with positive ones.

## 2. Method

The study adopted a quasi-experimental research design. The population of the study comprised all SS2 students in Yenagoa local Government Area (LGA) of Bayelsa State, Nigeria. The sample consisted of 109 Senior Secondary Class2 (SS2) students drawn from 4-schools in the LGA. Two secondary schools were randomly selected from each zone and an intact class was selected from each school. Simple random sampling was used to select schools to serve as experimental and control groups.

A questionnaire named Achievement Goal Orientation Questionnaire (AGOQ) was used to collect data from the respondents. The instrument had two sections. Section A elicits bio data of respondents while section B consists of 20 items which measured students goal orientation to mastering a task (mastery orientation), appearing superior to peers (performance-approach orientation) or avoid looking stupid in the classroom (performance-avoidance orientation). Items were scored on a 5-point scale of “very true” to “very untrue” The questionnaire was adopted from the patterns of adaptive learning scale (PALs) and modified by the researcher with reliability values of .90, .73, and .64 for mastery, performance-approach and performance-avoidance orientations respectively.

Data was collected through a pre-test and post-test administration of AGOQ. Treatment was administered in between the two tests.

### 3. Results

The following are results showing significant difference in the mean scores of students exposed to CRT and those in the control group on their Achievement Goal Orientation (AGO) with respect to mastery, performance- approach and performance- avoidance goal orientations

**Table 1: ANCOVA on the mean scores of students treated with CRT and those in the control group in mastery aspect of AGO**

Source of variation	SS	Df	MS	Cal.F	Crit.F	P ≥ 0.05
Corrected Model	560.822	2	280.411			
Intercept	662.722	1	662.722			
AGO/Mastery 1	470.281	1	470.281			
EXPERIMENTAL	513.426	1	513.426	19.09	3.93	S
Error	2850.463	106	26.891			
Total	198131.000	109				
Corrected Total	3411.284	108				

Table 1 shows that at 0.05 level of significance, 1df numerator and 108df denominator, the calculated F 19.09 is greater than the critical F 3.93. The null hypothesis is rejected. Therefore, Cognitive restructuring technique is significant in changing students' mastery aspect of AGO.

**Table 2: ANCOVA on the mean scores of students treated with CRT and those in the control group in approach aspect of AGO**

Source of variation	SS	Df	MS	Cal.F	Crit.F	P ≥ 0.05
Corrected Model	1031.837	2	515.919			
Intercept	95.152	1	95.152			
AGO/Approach 1	229.288	1	229.288			
EXPERIMENTAL	837.827	1	837.827	19.09	3.93	S
Error	907.190	106	8.558			
Total	34055.000	109				
Corrected Total	1939.028	108				

Table 2 indicates that at 0.05 level of significance, 1df numerator and 108df denominator, the calculated F 97.90 is greater than the critical F 3.93. The null hypothesis is rejected. Therefore, Cognitive restructuring technique is significant in changing students' approach aspect of AGO.

**Table 3: ANCOVA on the mean scores of students treated with CRT and those in the control group in avoidance aspect of AGO**

Source of variation	SS	df	MS	Cal.F	Crit.F	P ≥ 0.05
Corrected Model	932.144a	2	466.072			
Intercept	374.611	1	374.611			
AGO/Avoidance 1	301.899	1	301.899			
EXPERIMENTAL	762.947	1	762.947	132.01	3.93	S
Error	612.608	106	5.779			
Total	16342.000	109				

Corrected Total 1544.752 108

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Table 3 shows that at 0.05 level of significance, 1df numerator and 108 df denominator, the calculated F 19.0132.019 is greater than the critical F 3.93. The null hypothesis is rejected. Therefore, Cognitive restructuring technique is significant in changing students' avoidance aspect of AGO.

#### 4. Discussion

It has been shown in this study (Table 1) that Cognitive restructuring therapy (CRT) significantly affected students' mastery goal orientation. That is, students trained in cognitive restructuring had a significant shift in their mastery goal orientation compared to students who were not trained ( $F=19.1$ ,  $p=.000$ ). It is also shown that CRT significantly affected students performance approach and performance avoid goal orientations ( $F=97.9$ ,  $p=.000$  and  $F=132.0$ ,  $p=.000$  respectively).

The findings of this study agree with the findings of Kovalski and Horan (1998) that internet based CRT dislodged adolescents mindset that certain jobs were more appropriate for men than women. Akeneme and Ngwoke (2010) also reported similar findings that CRT was effective in enhancing the achievement orientation of schooling adolescents.

The findings of this study are consistent with the explanation of the Social Cognitive theory that beliefs and mindsets are products of Cognitive and environmental factors. Therefore, an intervention that helps one to critically scrutinise the basis of such beliefs would most likely make one refute faulty ingredients of the beliefs.

#### 5. Conclusion

It was shown in this study that cognitive restructuring therapy significantly affected schooling adolescents' achievement goal orientations in mastery, performance approach and performance avoidance goal orientations. Cognitive restructuring therapy is therefore shown to be effective in changing irrational beliefs that underlie negative goal orientations.

It is therefore recommended that school psychological services personnel should employ cognitive restructuring therapy in handling low motivation for academic achievements amongst Nigerian adolescents.

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