Effects of Group Counselling and Self-Reinforcement on Study Behaviour of Students in Selected Universities in Nigeria

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ABSTRACT
This study investigated effects of group counseling and self-reinforcement on students study behavior in selected universities in Nigeria. Quasi-experimental, pretest, post-test control, group design guided the study. The target population of the study is all second year undergraduate students in Nigerian public universities. Two-null hypotheses guided the study. A sample of 60 participants was selected through the use of simple random sampling techniques for the study. Study behavior inventory was used as instrument for the study and hypotheses were tested at 0.05 level of significance. Data were analysed using one-way and two way analysis of covariance (ANCOVA). The results indicated that the counseling strategies were effective in improving student’s study behavior. Based on the findings, it was recommended that group counseling and self-reinforcement be utilized in modifying poor study behavior at the university level.

Keywords: Group counseling, self-reinforcement, study behavior.

Introduction
Nigeria has many public universities, namely University of Port Harcourt, University of Nigeria, Nsukka, University of Ibadan, University of Benin, Rivers State University of Science and Technology, University of Lagos, University of Ilorin, University of Ife, University of Maiduguri, University of Uyo, Nnamdi Azikiwe University, Awka, Imo State University and Ebonyi State University. The core mandate of these universities is to train human resources such as teachers, medical doctors, engineers and administrators for national development. Students also derive personal benefits from university education, since it equips them with important knowledge, skills, values, attitudes and behaviours which enable them to gain employment after school and to adjust well to society. Unfortunately, not all students who enrol are able to complete their programmes. In every academic year a number of students, especially undergraduate students are withdrawn due to poor academic performance, even though they have the potential capacity for academic success. For example, between 2007/2008 and 2009/2010 academic years, 205, 65, and 50 students in 100, 200 and 300 levels respectively were withdrawn from the university due to poor academic performance (University Admission Office, 2010). The withdrawal of students from universities is a great loss to families and the nation as a whole. It is an unnecessary waste of individual, family and national talent and resources.

Several factors are responsible for poor academic performance worldwide. The major factors include inadequate motivation for lecturers, inadequate lecture rooms, lack of well-resourced library facilities, poor study behaviour, low motivation for learning, financial difficulties and
emotional problems. Of all the factors stated as being related to poor academic performance, poor study behaviour has been generally recognised as the most important factor. For example, Azeez (as cited in Kagu, 2001) conducted a study in Nigeria and found that poor study behaviour ranked highest when compared with other factors contributing to poor academic performance. Yahaya (2003) also cited a similar study which identified poor study behaviour as one of major causes of students’ poor academic performance in Nigeria.

Although poor study behaviour can be modified through counselling, there is no counselling intervention programme in public universities in Nigeria to enable undergraduate students, particularly second year students, improve their good study behaviour. It is expected that improvement in study behaviour would translate into good learning outcomes. It is against this background that the study investigated the effects of group counselling and self-reinforcement on the study behaviour of first year university students in Nigeria.

Objectives
The objectives of the study were to:
1. Find out the effects of group counselling and self-reinforcement on the study behaviour of students.
2. Ascertain the influence of gender on the study behaviour of participants in the experimental and control groups.

Hypotheses
The following null hypotheses were tested statistically.
1. There is no significant effect of group counselling and self-reinforcement on the study behaviour of students.
2. There is no significant difference in the study behaviour of participants in the experimental and control groups on the basis of gender.

Methods
Design
The experimental, pre-test, post-test control group design was used in the study. The design consisted of three groups (two experimental groups and one control group). The first experimental group was exposed to study group counselling, while the second group received self-reinforcement counselling. The third group was the control or the no-treatment group.

Population
The population of the study comprised of all second year undergraduate students in public universities in Nigeria.

Sample and Sampling Procedure
Simple random sampling was used to select University of Port Harcourt and Rivers State University of Science and Technology for the study. Out of one hundred and thirty-two (132) eligible students/students who obtained 101 and above on the Study Behaviour Inventory, the researchers used simple random sampling to select a sample size of sixty (60) students for the study. Each of the three groups had 20 members (10 males and 10 females).

Instrument
Study Behaviour Inventory (SBI) was used to measure the study behaviour of the selected participants. It was adapted from the Study Habit Survey (SHS) form B developed by Essuman (2006). Five out of the ten scales of the SHS were adapted, including the scoring
and interpretation of the instrument. The five scales are Time Management, Concentration, Reading and Library use, Consultation, and Note Taking. The test-retest reliability coefficient for the whole SBI was 0.87, while the Cronbach’s coefficient Alpha yielded an index of 0.89. These reliability coefficients are acceptable and, therefore, meant that the instrument was usable.

**Treatment Procedure**

The procedure for treatment was carried out in three phases—pretreatment, treatment and posttreatment phases.

**Pre-treatment Phase:** The SBI was administered to the three groups in order to collect baseline data. The pre-test was done two weeks before the treatment phase.

**Treatment Phase:** The researchers conducted counselling sessions for one hour twice in a week for six consecutive weeks. The first experimental group was exposed to study strategies without any form of reward, while the second group received counselling on verbal and rewards and study strategies that would warrant self-administration of rewards.

**Post-treatment Phase:** After the counselling intervention, the researchers re-administered the SBI to all the participants in the three groups in order to ascertain the effects of the treatment.

**Data Analysis**

The data were analysed using one-way and two-way analysis of covariance (ANCOVA). Level of significance was set at 0.05.

**Results**

Hypothesis 1: There is no significant effect of group and self-reinforcement counselling on the study behaviour of students. The hypothesis was tested using one-way analysis of covariance (ANCOVA). The results are presented in Tables 1 and 2.

**Table 1: One-way Analysis of Covariance (ANCOVA) of Difference in Post-test Study Behaviour Scores of Participants in the three Groups**

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Square</th>
<th>Degree of Freedom</th>
<th>Mean Square</th>
<th>F-cal</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected model</td>
<td>12546.80</td>
<td>2</td>
<td>4182.22</td>
<td>12.75</td>
<td>.000</td>
</tr>
<tr>
<td>Covariate</td>
<td>6115.36</td>
<td>1</td>
<td>6115.36</td>
<td>18.66</td>
<td>.000</td>
</tr>
<tr>
<td>Group</td>
<td>7946.75</td>
<td>2</td>
<td>3973.37</td>
<td>12.13</td>
<td>.000*</td>
</tr>
<tr>
<td>0Error</td>
<td>18337.75</td>
<td>54</td>
<td>327.44</td>
<td>12.11</td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>30884.56</td>
<td>56</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*significant at 0.05

The result in Table 1 shows that the P value of 0.000 is less than the significance level of 0.05 which indicates that there is significant effect of study and self-reward skills counselling on the post-test study behaviour across the three groups F(2.54)=12.11, P=0.000. In view of this, the null hypothesis which states that there is no significant effect of group counselling and self-reinforcement on the study behaviour of students was rejected. It was, therefore, necessary to ascertain where the significant effects existed. In order to determine this, a post
hoc analysis was conducted using Least Significant Difference in study behaviour across the three groups as shown in Table 2.

**Table 2: Post hoc Test of Multiple Comparisons of Difference in Post-test Study Behaviour Scores of Participants in the three Groups**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean Difference</th>
<th>Std Error</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study skills counselling vs Self-reinforcement counselling</td>
<td>-5.81</td>
<td>5.88</td>
<td>.329</td>
</tr>
<tr>
<td>Study skills counselling vs Control</td>
<td>-27.11</td>
<td>5.72</td>
<td>.000*</td>
</tr>
<tr>
<td>Self-reinforcement counselling vs control</td>
<td>-21.31</td>
<td>6.02</td>
<td>.001*</td>
</tr>
</tbody>
</table>

* The mean difference is significant at 0.05.

From Table 2, it can be observed that significant mean difference exists between group counselling and control group since the P value of 0.000 is less than 0.05 level of significance (MD=27.13, P=0.000). Similarly, significant mean difference exists between self-reinforcement counselling group and the control group (MD=21.33P=0.001). It can, therefore, be concluded that group and self-reinforcement counselling were equally effective in improving participants study behaviour.

Hypothesis 2: There is no significant difference in the study behaviour of participants in the experimental and control groups on the basis of gender. This hypothesis was tested using two-way analysis of covariance (ANCOVA). The results are shown in Table 3.

**Table 3: Two-way Analysis of Covariance (ANCOVA) of Difference in Post-test Scores of Participants’ Study Behaviour in the three groups on the basis of Gender**

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>Degree of freedom</th>
<th>Mean of F-cal</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>13492.02</td>
<td>6</td>
<td>2248.67</td>
<td>.000</td>
</tr>
<tr>
<td>Covariate</td>
<td>4485.72</td>
<td>1</td>
<td>4485.74</td>
<td>.000</td>
</tr>
<tr>
<td>Group</td>
<td>8094.96</td>
<td>2</td>
<td>4047.15</td>
<td>.000*</td>
</tr>
<tr>
<td>Gender</td>
<td>211.72</td>
<td>1</td>
<td>211.74</td>
<td>.425</td>
</tr>
<tr>
<td>Group &amp; gender</td>
<td>693.62</td>
<td>1</td>
<td>346.82</td>
<td>.355</td>
</tr>
<tr>
<td>Error</td>
<td>17392.54</td>
<td>52</td>
<td>328.16</td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>30884.56</td>
<td>57</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at 0.05

From Table 3, there is significant difference in the post-test scores on study behaviour among the three groups since the P value of 0.000 is less than the 0.05 level of significance F(2,56)12.13, P=0.000. In addition, the results of the analysis in Table 3 show that no significant difference exists in post-test scores between male and female participants on study behaviour F(1,53)=0.065, P=0.425. The null hypothesis which states that there is no significant difference in the study behaviour of participants in the experimental and control groups on the basis of gender was, therefore, retained.

This means that gender is not a significant determinant of students study behaviour.
Discussion
The study found that significant difference exists between each of the experimental groups and control group on study behaviour at post-test. This implies that group and self-reinforcement counselling did record positive effects on participants’ study behaviour after treatment. Therefore, both counselling techniques are effective in improving study behaviour among university students in Nigeria. The current findings are in line with the results obtained by Brass; Pindar; Kagu, (as cited in Kagu, 2004; Yoloye, 1992) who found that subjects exposed to study skills counselling experienced significant improvement in their study behaviour unlike the control group. The current result is also consistent with the results discovered by Ghosh (1982) who investigated the effect of study skills counselling on study behaviour and found that the post-test scores on study behaviour of respondents in the treatment group were significantly higher than that of the control group. Perhaps participants responded well to study skills counselling because of the belief that it was going to make significant contribution to their academic performance. This assumption is supported by the view expressed by Anderson and Anderson (as cited by Hazard & Nadeau, 2006) that study skills such as time management and note taking have been found to have significant influence on university achievement. The assumption is further supported by the view held by Gettinger and Seibert (2002) that study skills are academic enablers; they function as critical tools for learning. Devine (as cited in Gettinger & Seibert, 2002) also opined that study skills enhance the effectiveness and efficiency of learning.

Similarly, participants exposed to self-reinforcement counselling significantly improved their study behaviour compared to their counterparts in the control group. This finding supports the results revealed by McReynolds and Church (as cited in Jones Nelson & Kadzin, 1977) that subjects exposed to self-reinforcement counselling improved considerably their study behaviour as compared to the control group. The current finding further corroborates the result obtained by Jackson and VanZoost (as cited in Jones, Nelson & Kadzin, 1977) that significant difference in study behaviour was found between self-reinforcement counselling group and control group. This finding suggests that participants adequately practised the self-reinforcement strategy because of its influence on learning outcomes. This view agrees with the observation made by Bandura (1977) that individuals who make self-reinforcement conditional upon performance attainments can raise their college grades by improving their study behaviour.

However, the current finding is contrary to the result obtained by Reilly (1983) that there was no significant difference between self-reinforcement counselling group and control group at post-test on study behaviour. A possible explanation for Reilly’s finding could be that participants in his study did not make use of all the components of the self-reward strategy compared to those in the current study. This reason is in line with Bandura’s (1976) observation that clients who monitor their performances and goal attainments and reward themselves for goal achievement typically surpass their counterparts who also monitor their own performances and goal attainment but never engage in overt self-reinforcement. Again, the rewards used by participants in the previous study might not be as potent as those used in the current study. Also, the participants in the earlier study might not have attached much value to their self-rewards and this could have contributed to low improvement in their study behaviour. Research has shown that the greater the value of the self-reward the higher the level of performance (Bandura, 1976). It was also possible that participants in the earlier study did not present the rewards at the appropriate time in order to maximize the self-reinforcement strategy. This view agrees with the assertion by Hackney and Cormier (1979)
that the self-reinforcement should come only after target behaviour has been performed in order to have the most impact.

To determine whether significant difference exists in the means on study behaviour across gender, two-way ANCOVA was performed and the results showed that there is no significant difference in the mean scores on study behaviour at post-test on the basis of gender. The implication is that students, irrespective of their gender, can benefit from study behaviour counselling. In other words, gender is not a barrier to counselling on study behaviour, since neither of the sexes responded significantly different to the treatments. This finding tallies with the results of Ohanaka and Ofuani (2010) that males and females did not differ significantly in their post-test scores on study behaviour. The current finding further supports the result obtained by Kagu (2004) that gender was not a significant determinant of respondents study behaviour at post-test. However, the current finding is contrary to the result obtained by Dwyer and Multer (as cited in Ohanaka & Ofuani, 2010) who found that male and female respondents differed markedly in their post-test scores on study behaviour. Perhaps one of the sexes in the study of Dwyer and Multer had a higher level of motivation to receive counselling on study behaviour than the other and this led to the discovery of significant difference between them.

Similarly, the current result is also consistent with the result discovered by Awabil, Kolo, Bellow and Oliagba (2013) who found that group counselling techniques have positive effect in improving study behaviour of students.

**Conclusions and Recommendations**

Based on the findings, the following conclusions and recommendations are made:

In the first place, group counselling and self-reinforcement are equally effective in improving the study behaviour of first year undergraduate students in Nigeria. Secondly, gender is not a significant determinant of students’ study behaviour in Nigeria. It is, therefore, recommended that counsellors in the universities should use group counselling and self-reinforcement in modifying poor study behaviour on individual or group basis.

**References**


