

ISSN: 1596-0773

EDITORIAL BOARD

Edito-in-Chief

Prof. O. I. E nukoha
Dean of Education

Editor

Prof. A. J. Isangedighi

Associate Editors

Dr. S. J. Okure
Dr. N. U. Ntia
Dr. P. G. Akintunde

Production Editor

Dr. C. G. Asagwara

Business Editor

Dr. (Mrs) E. A. Uwe

Treasurer

Dr. (Mrs) A. E. Asim

Secretary

Mrs C. A. Agbor

CONSULTING EDITORS

Prof. D. I. Denga
Prof. S. C. Uche
Prof. (Mrs) J. O. Omojuwa
Prof. (Mrs) G. E. Mbipom
Prof. G. C. Igborgbor
Prof. I. I. Eshiet
Prof. J. D. Okoh
Prof. S. O. Olaitan

Prof. D. N. Nwachukwu
Prof. (Mrs) A. E. Esu
Prof. B. O. Ikpaya
Prof. C. O. Bassey
Prof. E. J. Etuk
Prof. B. S. Okeke
Prof. C. O. Udoh
Prof. O. Aina

FEEDBACK AS A POOR PERFORMANCE REMEDIATION

By

A. O. U. ONUKA

Institute of Education,
University of Ibadan, Ibadan

&

B. P. OLUDIPE

Faculty of Education,
Olabisi Onabanjo University,
Ago Iwoye, Nigeria.

ABSTRACT

The study determined the potency of feedback on remediation of students' poor performance. The design adopted in this study is the pre-test-post-test quasi-experimental control group design. Subjects were 82 fifth year (SS11) students from two secondary schools in Okene, Kogi state. Subjects in the experimental group received feedback concerning their performance, while their counterparts in the control group did not receive any feedback. The research findings indicated that subjects in the experimental group performed significantly better than the control group in both Mathematics and Economics. The control group had marginal improvement. It was concluded that, provision of feedback leads to both remediation and improvement.

INTRODUCTION

The Obvious purpose of formative evaluation is the academic development of the students through the system of feedback mechanism. Some scholars (Yoloye, 2003; Umoru-onuka, 2003; Hayman and Rodney, 1975) believe that feedback identifies the discrepancy between what ought and what is, and tell the nature of the difference between what ought and what is, as well as being meant to help to improve the educational system. Furthermore, Yoloye (2003) is of the opinion that formative evaluation, which is done systematically in

order to remediate poor performance is the obvious source of feedback. In a recent study, Umoru-Onuka (2004) reported that students were found to have tremendously improved, when feedback, which is the application of evaluation for improvement, was applied.

Feedback in essence, therefore, is the application of evaluation result for correcting any detected anomalies in student's performance. Feedback mechanism is multifaceted in the sense that it is given not only to the student, but also to parents or guardian as well as other stakeholders, including the proprietors of schools (the government or individual) for improving the entire school system. Feedback, according to Damachi (1978) is a system of control; it could in fact be used as a quality control system. There is no doubt, therefore, that feedback can certainly cause remediation to take place, since remediation is a corrective system intended to enhance and improve performance. The objective of this investigation was to find out the extent to which feedback mechanism resulting from formative evaluation could remediate student's poor academic performance in secondary schools using Mathematics and Economics.

METHODOLOGY

Design: The design adopted in this study is the pre-test-post-test quasi-experimental control group design. In this design, the pre-test observations are recorded on subjects; a single group of subjects (the experimental group) later receive a treatment, after which post-test observations are made on both the experimental and control groups.

Sample: Subjects in this study were 82 students in senior secondary school class two (SS11) from two secondary schools in Okene, Kogi state. The students were in their second year of six-year secondary education programme in Nigeria. Two schools were selected based on similarity of content units treated in the subject. A careful examination of the mathematics and Economics programme for the two schools showed that they had treated about the same topics in the subject. It was therefore assumed that the two schools had comparable baseline knowledge in these two subjects to justify experimentally based comparisons. In each school, an intact class was randomly selected for the study.

Instrumentation: Achievement tests (pre-test and post test) were used to obtain data from subjects. The test was adopted from a number of WAEC objective (multiple) choice questions in the two subjects, (Economics and Mathematics), covering six major content areas. The

pre-test consisted of 20 multiple-choice items and covered the relevant content areas, which served as pre-requisite for the topics that were taught during the study. A split-half reliability of 0.68 was established on administration of the test on a sample of 40 students. The Spearman Brown prophecy formula was used to calculate the full test reliability coefficient, which was found to be 0.82. The post-test also consisted of 30 items and covered the materials taught during the entire experiment, Kuder-Richardson (kR-21) internal consistency coefficient of 0.66 was obtained for the test.

Experimental Procedure: In each of the two schools selected for the study, an intact class was randomly selected to constitute the sample. While subjects in one school were assigned to the experimental group, those in the second school were assigned to the control group. Few days before the study, subjects in both schools were given a pre-test. Teachers in the respective schools followed this with normal classroom instructions. For each week, the questions that cover topics taught during the week were given as formative test. At the end of the six-week treatment period, the post-test was administered to cover all topics taught by the respective teachers who administered the pre-test. While the teachers, in the experimental group provided feedback to students, concerning their performance, teachers in the control group did not provide feedback to students. Treatment lasted for six weeks. Two days after treatment, the post-test was administered to the subjects.

Method of data analysis: Mean, standard deviation and independent t-test statistics were used to analyse the data obtain in the study. The results of the analysis are presented in table 1.

RESULTS

Table 1: *t-test-Comparison of the Experimental and central Groups in Pre-tests' Post-tests and Gains made by students in Mathematics and economics.*

Test	Subject	Groups	N	Mean	SD	t - value
Pre-test	Mathematics Economics	(a)Experimental	40	51.20	3.21	1.415Ns
		(b)Control	42	52.10	3.82	
Pre-test	Mathematics Economics	(a)Experimental	40	54.40	3.01	0.133ns
		(b)Control	42	54.30	4.12	
Post-test	Mathematics Economics	(a)Experimental	40	56.50	3.06	4.129*
		(b)Control	42	53.40	3.72	
Post-test	Mathematics Economics	(a)Experimental	40	5.50	3.60	9.632*
		(b)Control	42	56.60	4.72	
Gains	Mathematics Economics	(a)Experimental	40	5.30	1.41	15.879*
		(b)Control	42	1.30	1.13	
Gains	Mathematics Economics	(a)Experimental	40	11.10	1.51	15.949*
		(b)Control	42	2.30	1.03	

*Significance at 0.05 probability level

ns=Not significant at 0.05 probability level

As presented in Table 1, the results of the t-test analysis show no significant difference between the scores of the experimental group and the control group in the pre-test in both Mathematics and Economics. Further observation shows that at the post-test, the experimental group significantly outscored the control group in Mathematics ($t = 4.129$, $df = 80$, $p < .01$) and Economics ($t = 9.632$, $df = 80$, $p < .01$). A further observation shows that in comparing the experimental and control groups in gains made, the experimental groups for outscored the control group in Mathematics ($t = 15.879$, $p < .01$) and also in Economic ($t = 15.919$, $p < .05$). The results imply that providing learners with feedback can lead to improved performance.

DISCUSSION AND CONCLUSION

This study was designed to find out if feedback mechanism resulting from formative evaluation could remediate student's poor academic performance in secondary schools using Mathematics and Economics. The result of independent t-test analysis indicates that students who receive feedback from formative evaluation, experienced remediation and improved performance. The implication of this research finding is that feedback leads to both remediation and improvement, since the purpose of the former is the later (Roy-Macauley, 1988).

In this study, it has been proved that feedback is a source of remediation and thus the resultant improved student performance. It is thus being recommended that all teachers in the school system be compelled to use formative evaluation (Continuous Assessment), in assessing students at regular intervals, mark the scripts and provide the students with the necessary feedback for remediation and the resultant student's improved academic performances. Parents as a matter of compulsion should demand for regular feedback on the student's performance, both academically and in other aspects of the student development. School authorities should ensure that formative tests be regularly administered and utilized for remediation. Defaulting teachers should be sanctioned to serve as deterrent to others. It is also been suggested that further study in this area be carried out in other subjects.

REFERENCES

- Damachi, U.G. (1978). Theories of Management and Executives in the Developing World. London: The Macmillan Press.

- Hayman, Jr. Jcand Rodney, N.N. (1975). Evaluation in Schools: The Human Process of Renewal.
- Obemeata, J.O. (1984). The emerging field of Educational Evaluation. Nigeria Educational Forum, 7 (2) 215-221
- Roy-Macaulay, C.A. (1988). Evaluation of the Sierra Leone Social Studies Population Education Programme. Unpublished PhD thesis, University of Ibadan.
- Umoru-Onuka, A.O. (2004). Accountability in education for improving student performance. In Babalola, J.B. and S.O. Adedeji (Eds.) Current issues in Educational Management. Pp.125-136.
- Umoru-Onuka, A.O. (2003). Improving students' performance through feedback Mechanism in Nigerian Secondary Schools. A Paper prepared for WAEC monthly seminar, Yaba Lagos.
- Yoloye, T. W. (2003). Restoring confidence in the Nigerian educational system through Standard Evaluation Strategies. A Paper presented at School of Education, Tai Solarin college of Education, Ijebu – Ode (7, October, 2003).

UNIVERSITY OF IBADAN LIBRARY