

NO. 17 95-10005 VOL. 11, 2

INTERNATIONAL JOURNAL OF DISTANCE EDUCATION (IJOE)



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INFLUENCE OF FEEDBACK MECHANISM ON STUDENTS' PERFORMANCE IN ECONOMICS IN KOGI STATE, NIGERIA

ABSTRACT

This paper discusses formative or developmental evaluation whose results, when used as feedback mechanism, would lead to improvement of students' academic performance at the secondary school level. Two questions were asked on the use and influence of feedback mechanism on students' academic performance. A ten-item checklist was used to find answers to the questions, while 20 teachers were interviewed on the subject of the investigation. The data were collected from continuous assessment as well as the Senior School Certificate Examination result of two sessions (1999-2001). The data were analysed using frequency counts and using percentages. Correlation statistic was also used to answer the hypothesis so postulated for the purpose of the study. The performance in economics by students was found to have improved appreciably. Some recommendations were made for effective use of feedback mechanism for better

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results in secondary schools. They include adequate funding the encouragement of frequent use of formative evaluation to provide feedback on students' performance; it was also recommended that organization of seminars on formative evaluation and feedback for teachers among others be undertaken at regular intervals.

Introduction

Evaluation, according to Umoru-Onuka (2003), is a process that provides feedback for programme improvement and accountability. Hayman and Rodney (1975) opined that evaluation provides feedback with which goals can be compared to outcomes of a programme. According to them, feedback identifies the goals of a programme and indicates the nature and the actual outcome. Koontz, O'Dannell and Weihrich (1980) see feedback as follows: Information input into a system, transmitting messages of the system operation to indicate that it is operating as planned or otherwise or information concerning any type of planned operation relayed to the person responsible for the system improvement. However, Damachi (1978) posits that the object of feedback is to control a system output.

Ehindero (1986), Ray-Macaulay (1988) and Umoru-Onuka (2003) all contend that evaluation is a feedback mechanism. Yoloye (2003) supports this assertion when he argues that formative evaluation is done progressively in order to improve the educational system. He further states that tools of academic feedback are actually the data (information) provided by Continuous Assessment, tests and the measurement of attitude of individual students. Feedback would be a mirage if the data obtained by the use of the tools from evaluation enumerated above are not utilized to improve the students' performance academically. Thus, feedback mechanism is meant to improve outcomes including better student academic performance. In normal situations, a guidance counsellor would be expected to use such data to assist the students to improve their total beings. Thus, evaluation of students' achievement and the resultant feedback are geared towards enhancing students' performance and the guidance counsellor must use it to assist him in helping to improve him. It might be advisable that if there is no guidance counsellor, responsible teachers should be designated to do the job for effective feedback application, so as to enhance the achievement of educational objective as predetermined by stakeholder in the industry.

When there is discrepancy between intended and actual occurrence, one needs to find out, what went wrong and the outcome of such investigation is then put back into the system for the purpose of improvement. Such feedback is then regarded as feedback. When there are set national educational goals, evaluation and the resulting feedback reveals whether or not these set goals are being achieved. Here information concerning any type of planned instruction is relayed to the teacher responsible for executing such planned instructions in order to help achieve such goals as well as improve the educational system. It implied here that feedback is a systematic process whereby, periodic data is provided on how a system had fared or operated. In the school system, feedback shows how effectively or otherwise the educational system has operated. It reveals whether or not the intend outcome of teaching/learning is the actual outcome. It also shows what went wrong as the cause of the discrepancy, and how this can be ameliorated. Thus, testing a new method of teaching and learning is a feedback on the workability of the new method. According to Wiggins (1998) feedback is neither encouragement nor criticism, but a piece of information on the result of one's action.

Umoru-Onuka (2003) asserts that feedback can be described as a process of coupling parts of an output of a system, because a unit of a process at one stage becomes an input to the next stage of the process and can thus be used to improve the latter stage. For Keith and Gubelleni (1975), feedback is the capacity of a machine (or system) to evaluate its own performance and then use the result to correct it wherever a deviation from plan has been observed. Thus, feedback implies that an output could return to the system as input for corrective purpose. Oneitan (Umoru-Onuka, 1996) contends that feedback from past products of an educational programme form basis for course/curriculum development in educational programme. Wiggins (1998) also views feedback as an essential part of a complete learning system. Feedback mechanism is therefore a system which compares outcome with a given criterion. Damachi (1978), and Jha, Ghosh and Hehfa (2006) contend that the object of feedback mechanism is control, and control leads to system improvement since the need to know about feedback and its use would enhance its effectiveness. Therefore, a feedback mechanism can be described as a means whereby provision is made for self-corrective measure to improve the system.

According to Yoloye (2003), there are two main types of evaluation: formative and summative. The former is carried out as a programme progress

in order that a corrective measure could be taken to rectify any deviation from original plan. The latter is carried out at the end of a course or project or programme for appraisal purpose and of course to pass judgment on the worth of the programme. Yoloye (2003) defines formative evaluation as an evaluation carried out at the beginning, progressively and at the end of a unit of a course, a project or programme. He further asserts that it is used to effect correction where error had occurred and for modification of the programme if necessary. Continuous assessment, which is a series of tests, designed to assess the students' cognitive achievement at regular interval is the most readily used tool for formative evaluation in education. This is a means of feedback mechanism (the focus of this study).

Evaluation is carried out in every aspect of an educational programme: planning and execution of curriculum, instructional, strategies, facilities as well as the instruction itself to keep them on track. This is done through the resultant feedback from the evaluation process. The importance of feedback mechanism cannot be overemphasized as it keeps the teacher and the learners on their toes and makes them work harder. Abe (1999) defines formative evaluation as one undertaken during the developmental process of a programme for the purpose of guiding and assisting programme improvement. He states that it could be used to monitor students' progress during classroom instruction (a situation whereby the teacher questions the students in order to ascertain level of absorption of the content taught), to pace the students' learning Programme/activity (as in the case of continuous assessment) and to control the quality of the educational product. For Abe (1999) Summative Evaluation, on the other hand refers to all evaluation, which aims at determining the worth of a programme when completed. The purpose of summative evaluation, therefore, is decision making about a programme's future. The major tool for feedback is formative as defined above.

Economics, which is the study of human behaviour in relation to the production and distribution of scarce resources, has become a subject that almost every student in Nigeria registers for in the SSCE every year. It is increasingly becoming popular. It is, thus, important that studies to improve students' performance in the subject be carried out especially that it is required for many social and business sciences at the tertiary institutions (UME, 2006). Onuka and Oludipe (2004) found that feedback given to students on their performance can remediate poor performance in economics. The West African Examinations Council Chief Examiners' Report (2003) indicates

that although performance in Economics had been just fair, yet it could have been better if the candidates could do better in the mathematical/statistical aspect of the subject. The report also indicates that the candidates were unable to draw and label diagrams well and that they often misinterpreted questions. An undated WAEC statistics on student performance in Economics show that credit passes recorded from 1994 to 2004 were: 27.9%, 15%, 19.6%, 14%, 2%, 21.7%, 35.4%, 28.2%, 22.3%, 42.98% and 38.2% respectively. This result implies that much is still left to be desired in the performance of students in SSCE economics, unless the performance level is improved. These students' shortcoming could be ameliorated if they are tested regularly and given feedback on their performance. It is the contention of authors, that feedback to the students on such development would assist them to work harder to overcome the detected weakness. Xun and Susan (2003) are of the view that scaffolding and social interaction, a consequence of feedback, influences learning by the educand. Jha, Ghosh, and Mehta (2006) posit that feedback does promote learning, thus agreeing with the argument of Balogun and Abimbola (2002) that group learning, which could result from feedback mechanism, does assist to facilitate higher student achievement. It is the contention of these scholars that feedback promotes improved student learning in any subject. Hence, the need to further establish the claim of scholars on the influence of feedback and academic performance of students particularly in economics.

The objective of this investigation was to determine the influence of feedback mechanism on students' academic performance in economics and how feedback mechanism could be used to bring about improvement of students' academic performance in senior secondary economics in Kogi State.

Research Questions

The above stated objective gave rise to the following questions.

- (1) Is feedback mechanism used by economics teachers in schools in Kogi Central Senatorial District?
- (2) Does the use of feedback mechanism in schools influence students' academic performance in economics in Kogi Central Senatorial District?

Hypothesis

H₀: There is no significant relationship between the schools with feedback mechanism and student achievement in economics.

Scope

The study covered secondary schools in five local government areas (LGAs) of the state which made up Kogi Central.

Methodology

Research Design: The study adopted descriptive survey design of the ex-post facto type.

Population

The entire SS1, SS2, and SS3 students from 1999/2000 to 2003/2005 sessions in Kogi Central made up of Adavi, Ajaokuta, Ogori-Magongo, Okehi and Okene LGA Councils constituted the population.

Sampling Procedures and Sample

Ten schools were randomly selected from 65 schools in the five LGAs covered by the study. Two arms each, one from each of the two classes SSI and SSII were again randomly selected from each of the sampled schools totaling 20 classes. In other words, ten classes of each of SSI and SSII were chosen and the teachers of these classes participated in the study. In all twenty teachers were selected. 30 students were randomly selected from each class of the twenty classes giving a total number of 600 students for the study. All economics teachers in the sampled schools made up the teacher sample (60 in all).

Instrument and Data Collection

A ten-item questionnaire with three options of Frequently, Rarely and Never was designed by the Researchers for assigning the frequency of the use of feedback mechanism in schools. This was reviewed and validated by experts in evaluation, who confirmed its content validity. The test-re-test reliability coefficient of 0.89 was obtained by administering the questionnaire twice on a pilot group. Thereafter, it was administered on 20 teachers similar to the teachers of the classes for study for validation which yielded a coefficient of 0.78 after statistical analysis. The items on the questionnaire were converted to interview schedule with some additional allowance for free responses to allow the teachers comment freely. The responses were reduced to two part of applying or not applying feedback mechanism in their teaching efforts, to verify the authenticity of their responses to the

questionnaire items. The Senior Secondary School Certificate Examinations (SSCE) results of the schools for SS3 were obtained and the percentage success was computed, calculating only the passes at credit level and above, as well as their CA scores results which were compared to see the relative improvement in the students' academic achievement in economics by correlating the cumulative CA scores of the SS3 students with their SSCE results.

Teachers' responses with similar responses collapsed to form the basis of coding the responses. The teachers who taught economics in these schools were interviewed. CA scores were cumulated from SS1 through SS3 and the correlated with their respective SSCE results based on the mean of each grade point. A ten-item student questionnaire constructed and validated by the researchers with the following properties: reliability coefficient of 0.76 and validity coefficient of 0.69 obtained through the process stipulated for the teacher's above. Furthermore, a two twenty item tests constructed and validated by the researchers were administered on SS1 and SS2 students respectively. Their respective properties were reliability coefficients of 0.68 and 0.71; and validity coefficients of 0.62 and 0.67.

Data Analysis

Percentages were used to analyze data obtained. The Responses from the interview of 20 teachers were collated with similar responses collapsed. Only those which up to 60% of respondents agree in a point that it was accepted were used for the study. These gave the following main responses: feedback is effective when properly applied: a good level of interaction with students on the essence of feedback mechanism. That lack of funds and provision of facilities to facilitate the use of the mechanism. That interview response similar to those on the checklist was collapsed into two categories of application and non application, and used to verify their responses to the items on the checklist. The aggregate mean CA scores for the period were correlated with the aggregate mean SSCE scores. Tests were respectively administered on SS1 and SS2 students and the results were correlated were their respective cumulative CA scores in six schools were feedback mechanism was most frequently used.

Results and Discussion

Table 1A: Use of feedback mechanism in schools (Teachers' Responses) in %

S/N	Item	Frequently	%	Rarely	%	Never	%
1.	How often do you use feedback to help the student?	36	60	15	25	9	15
2.	How often do you administer tests (formative test)	36	60	15	25	9	15
3.	How often do you give feedback to the parents with student's result?	54	90	6	10	0	0
4.	How often do you use questioning while teaching?	30	50	21	35	9	15
5.	How often does the school principal advise students based on feedback?	33	55	21	35	6	10
6.	Do you discuss student results with them individually?	24	40	30	50	6	10
7.	How often do you obtain feedback on your feedback from individual students	54	90	-	0	6	10
8.	How often do students solicit help from you individually as a result of the feedback?	36	60	15	25	9	15
9.	How often has the school management reacted positively to feedback on students through the provision of instructional materials?	51	85	-	0	9	15
10.	Has the feedback to students resulted in improvement of their academic performance?	48	80	6	10	6	10

Table 1A presents the teachers' responses on percentages and individual school bases. The table highlights the answers to questions one and two as shown in presentation and discussion below.

The result in table 1 shows that majority of the 60 school teachers not only possess knowledge of feedback mechanism but also use feedback mechanism to improve their students in that they gave test and the resulting feedback therefore to the students and by extension extend to their parents. 90% frequently gave feedback to their parents, only 10% claimed to have done so intermittently.

However, 60% of the subjects frequently using feedback to assist the students while another 25% does so infrequently and 15% did not. Those who claimed to have given formative test frequently, infrequently and did not give at all were in the same proportion as above. Only 50% used questionnaire on the students frequently. 35% did sparingly while 15% did not do so. 55% claimed their principals counseled the students regularly on the basis of feedback, 35% revealed the principal did so occasionally. The implication is that, some of the principals did it effectively and majority of them did so infrequently. The inference here was that teachers' knowledge of feedback led to its utilization. Only 40% of the students who received feedback stated that they consulted their teachers for assistance. However, it is not impossible that because the students did well that was why they did approach for assistance. Yet, 90% of the teachers received feedback from their students and evidence that the students regard feedback as a good mechanism for promoting enhanced students' performance.

85% of the teachers agreed that feedback application in their school led to the provision of some instructional material in some measures. 80% of the teachers revealed that feedback resulted in the envisaged improvement in the students' performance. These results were confirmed by the computation in Table 2B which revealed that school D and E least applied feedback while 2B confirmed that these two schools also performed least in their mock SSCE in the two sections covered by this study. The usage of feedback by the economics teachers to promote learning resulted from the implementation of the national policy on education that lays emphasis on its use (FME, 1977, 2004). It also conforms to the finding of Onuka (2007) that when the results of research are implemented the consequence is improvement.

Table 1B Students' % Responses

S/N	Description	Frequently	Less Frequently	Never
1.	You are given feedback	150(75)	30(15)	20(10)
2.	You are not given tests	170(85)	20(10)	10(5)
3.	Your teachers give feedback about your performance	180(90)	-	2(10)
4.	You are given questionnaire to fill	140(70)	10(5)	50(25)
5.	Principal advises you on basis of feedback	160(80)	-	40(20)
6.	Your teachers discuss your performance with you	80(40)	40(20)	80(40)
7.	You discuss the feedback given to you with the teachers	50(25)	50(25)	100(50)
8.	You solicit your teachers assistance in your learning process	58(29)	55(27.5)	97(48.5)
9.	Additional learning materials are provided in the school	38(19)	22(11)	140(70)
10.	Your performance has improved as a result of feedback	151(75.5)	21(10.5)	28(14)

Percentages in parentheses

Table 1B presents the students' responses in which 75% agreed they received feedback frequently and 15% infrequently while the rest did not at all. 85% claimed to have been given frequent tests, 90% of the students also gave feedback to their teachers on the feedback given to them earlier. This trend showed the level of importance the student attached to the mechanism. This is the reason why 75.5% claimed it helped them to improve their academic performance. 80% did receive pieces of advice from their principals in respect of their academic performance. This, however, contradict the view of the teachers that only 55% of the principals did. This development may be as a result of most of the principals doing it without the knowledge of the teachers which is commendable and encouraging, since the students would feel a sense of belonging and thus be encouraged to do better. This presentation provides an answer to the question showing that feedback mechanism was used to influence student academic performance in Kogi Central.

The results as shown in the table depict both agreement and contradiction between the views of the teachers and the students in respect to the use of the mechanism in these schools. These incidence of agreement and contradiction between the views of the teachers and students as to the

influence of feedback can be attributed to the varying degrees of knowledge of feedback possessed by teachers and students from school to school. The affirmative aspect of these findings conforms to the finding of Onuka and Oludipe (2004) that feedback promotes poor performance remediation in economics.

The above tables provide answer to question one, showing that though feedback mechanism is applied in Kogi Central by economics teachers, yet much can still be done to ensure that it is sufficiently and properly done.

Table 2A: Interview responses of teachers (% in parentheses)

Description	Applicable	Not Applicable
1. Usage of Feedback	51(85)	9(15)
2. Test Administration	51(85)	9(15)
3. Feedback of Parents	54(90)	6(10)
4. Usage of Questionnaire	51(85)	9(15)
5. Principals' counselling students	48(80)	12(20)
6. Interaction with students on the basis of feedback	54(90)	2(10)
7. Feedback on Feedback	51(85)	9(15)
8. Students seeking on the basis of feedback.	54(90)	6(10)
9. School management's reaction to the import of feedback.	51(85)	9(15)
10. Improvement resulting from feedback	48(80)	12(20)
11. Effective if properly applied	45(75)	15(25)
12. Interaction with parents	27(45)	33(55)
13. Inadequate funding	48(80)	12(20)
14. Inadequate provision of materials	51(85)	9(15)

NB Percentage in parentheses

From the teachers' interview responses, we can infer that these responses to a large extent confirm the questionnaire responses of the teachers with little disparities between the percentages of teachers agreeing on feedback to parents, level of interactions with the students and discussion with student on their performance on personal basis. These disparities are not, however, a disproof of the fact that feedback causes improvement in students' performance. In addition the teachers in the sample believed that funding is prerequisite to better application of feedback mechanism to engender greater achievement and also the provision of learning materials. The illustration

above shows that feedback influences student achievement in economics but its use is constrained by funding and lack of provision of appropriate learning materials and other relevant facilities, confirming the finding of Onuka (2007) that inadequate funding and unavailability of appropriate learning materials hamper effective learning. It thus shows that feedback mechanism in the school system in Kogi Central is constrained by the aforementioned inadequacies as an indication in 2A.

The teachers believed that proper application of feedback and proofs would also influence greater student academic achievement in economics agreeing with the finding of Jha et al (2006) and Onuka and Oludipe (2004). The fact that it influences student academic achievement was due to the disposition of the school managers to its usage but perhaps constrained by funds. Table 1C partly answers question 1 as well as question 2b that is that there were some constraints to effective use of feedback mechanism in Kogi Central.

Table: 2B Percentages of Successful candidates at SSCE Results

SCHOOL	1999/2000-2003/004 Aggregate %
A	71
B	53
C	69
D	42
E	37
F	66
G	58
H	59
I	69
J	51

The above table was computed from the school records on SSCE results for the years indicated therein.

Source: School examination records.

From table 2 school A, B, C, F, G, I, and J claimed to apply feedback mechanism in their efforts to improve student' academic achievement, while school D and E applied it minimally. In the 8 school where the feedback mechanism was applied, it was found to have influenced students' achievement in SS economics thus answering question two. The schools where feedback mechanism was used also recorded successes in SSCE

economics in the years covered by the study ranging from 51% (lowest) to 71% (highest). But SSCE results in the two school where it was almost ignored showed successes of 37% at the bottom and 42% at the peak. In table 1, 60% of the teachers in the sample gave feedback to the students very frequently; the same fraction administered formative tests (continuous assessment tests) to the students very frequently, 90% claimed to have given feedback to parents very frequently, 90% also claimed to have received feedback from teachers, claiming that they gave such to their parents which the parent used in assisting the students; 90% of those who gave feedback, also claimed to have called the students individually for discussion on their performance and educated them on how to improve, and sometime sent them to their parents with suggestions on what could be done to improve their children's performance. Thus, it can be inferred from this study that the subjects unequivocally believed that feedback mechanism greatly influences student academic achievement in economics.

The feedback system was said to have prompted school management to provide minimum instructional materials that could enhance the performance of both the teachers and students and to improve academic achievement of the latter. 85% of the teachers also stated that they advised the students in person so as to engender better academic performance on the part of the students. This finding confirms the position of Jha et al (2006) that feedback does help to influence student academic performance and the entire education system as is also implied in Balogun and Abimbola (2002) who state that learning promote learning, because such forms the basis for exchange of ideas by the students and the resultant feedback.

The interview with the teacher sought to know the level of interaction between the teachers and their students in person. Majority (about 70%) of the teachers claimed that they interacted personally with each student and helped them to overcome their problems. The teachers' responses to the question on the level of their interaction with individual parents. 45% of the respondents affirm they do so on a personal basis, they gave feedback to parents in writing and also received feedback from them. In addition a few came personally either on their own or when so required by the school authorities. On the question as to whether feedback mechanism had led to improved infrastructural provision, the response, which was nearly unanimous, was that school authorities within their limit had tried to provide minimum level of instructional materials due to lack of funding. Those who could not administer formative tests frequently claimed that their workload

was heavy because of the inability of the government and proprietors to recruit adequate number of teachers in Economics as in other subjects.

The inferences that can be made include the fact that teachers believed that for feedback to engender greater students' performance, certain things like increased level of funding to enable the schools to procure more papers which are necessary for properly execution of the mechanism, frequent interaction between teachers and parents on the essence of feedback in the school system whereby answers can be provided to the questions agitating the minds of parents needs be put in place. There should be increased interest in the mechanism by all school authorities to further facilitate its effectiveness as the study revealed that some school authorities despite the fact that the mechanism has provided itself, a useful tool for improving student' performance, in this study.

The study also shows that it is not every teacher in the secondary School system in the zone that uses feedback mechanism to improve the academic achievement of school. What can be inferred from these findings is that, supervision of teachers is not very effective or not taken seriously in some of the schools partly because there is shortage of qualified teachers in the system as well as lack of adequate funding Onuka and Obialo (2004). It could also be due to the fact that school managers are ineffective in running the affairs of their schools. The study confirms the findings and positions of Roy – Macauley (1980), Obemeata (1984), Umoru – Onuka (1996 and 2003), that if feedback is properly utilized, it will engender improvement of educational programmes and help in the realization of its goals and objectives and also the finding of Onuka and Oludipe (2004) that feedback can remediate poor performance in economics. It also underscores the position of Xun and Susan (2003) implicitly that feedback promotes positive learning.

Tables 3 to 5 provide answer to the hypothesis of this investigation.

Table 3

Correlation Coefficient of the Relationship between Aggregated CA scores and mock SSCE (mean school score) for 1999/2000 session to 2003/2004 session

	R	Sig.
School A	0.89	*
B	0.81	*
C	0.77	*
D	0.37	Ns
E	0.49	Ns
F	0.85	*
G	0.81	*
H	0.87	*
I	0.92	*
J	0.69	*

*Significant at % 0.01

ns - not significant

Table 3 gives the correlations between the aggregated CA (from which the students got the feedback on the level of their academic performance in economics) and schools mock SSCE mean scores. The table revealed that in schools A, B, C, F, G, H, I and J CA (from which feedback arises) significantly influenced the students' scores in economics in the mock SSCE exams in these schools while CA (the source of feedback) did not significantly influence their scores in economics in mock SSCE in schools D and E where it was least practiced. The implication, therefore, is that feedback through CA proved a useful tool for improving students' academic performance. This revelation corroborates the position of Wiggins (1998) that the assessment is to improve performance and that assessment techniques need to be accompanied by quality feedback for the anticipated effectiveness.

Table 4

Correlation Coefficient of the Relationship between Aggregated CA scores and SS2 Economics Achievement Test (mean school score) for 1999/2000 session to 2003/2004 session

	R	Sig.
School A0.78	*	
B	0.83	*
C	0.79	*
D	0.47	Ns
E	0.46	Ns
F	0.75	*
G	0.91	*
H	0.86	*
I	0.90	*
J	0.79	*

* Significant at % 0.01

ns- not significant

Table 5

Correlation Coefficient of the Relationship between Aggregated CA scores and SS1 Economics Achievement Test (mean school score) for 1999/2000 session to 2003/2004 session

	R	Sig.
School A	0.74	*
B	0.84	*
C	0.80	*
D	0.43	Ns
E	0.45	Ns
F	0.83	*
G	0.76	*
H	0.83	*
I	0.87	*
J	0.65	*

* Significant at % 0.01.

ns - not significant

Tables 4 and 5 shows that significant relationship exists between the usage of feedback mechanism and students achievement in economics and confirm that feedback does help to influence student achievement in economics thus corroborating the finding of Onuka and Oludipe (2004) that feedback could be the panacea for poor performance because it will make both the student and teacher to be more serious with their respective work to get better results. They also agree with results provided by table 3. The trend is the same for all classes i.e SS 1 through SS 3, as it is the same schools and almost the same level that used feedback mechanism to influence student academic performance in the positive sense. The same two schools that least employ the use of feedback to positively influence the student academic performance remain the ones that still do use feedback mechanism in any reasonable quantum in SS1 and SS2. The parents must wake up to their responsibility of provision of the necessary learning materials as well as assisting their wards to work hard for improved performance. It implies, therefore, that feedback proved a useful tool for influencing students' academic performance. This revelation corroborates the position of Wiggins (1998), that assessment is to improve performance and that assessment techniques need to be accompanied by quality feedback for the anticipated effectiveness.

The findings of this study confirms the findings and positions of Roy-Macauley (1988), Obemeata (1984), Umoru-Onuka (1996 and 2003), that if feedback is properly utilized, it will engender positive improvement of educational programmes and help in the realization of its goals and objectives and also the finding of Onuka and Oludipe (2004) that feedback can remediate poor performance in economics. It also underscores the position of Xun and Susan (2003) which states that feedback mechanism could implicitly promote positive learning.

CONCLUSION AND RECOMMENDATIONS

Feedback mechanism, if properly conducted and utilized, is a veritable instrument for the improvement of the academic performance of students in secondary schools. There is the need for frequent administration of formative tests to the students so as to put them on their toes and thus engender improved academic performance. Therefore, it is being suggested that seminars and training programmes in evaluation be conducted for all secondary school teachers in Kogi central in order to make them competent in the administration of formative evaluation and how to utilize the results thereof for feedback

to all stakeholders. Government, Proprietors, Parents, Industries and the society at large should work out a mutually agreed mode of funding secondary schools for a better posterity. School manager should ensure that effective supervision is done regularly. They should also ensure that funds are judiciously utilized to meet the financial requirements of the use of feedback in improving the student's performance. Students on their own part should ensure that they do their best to study hard in order to overcome their individual academic weaknesses. Examination bodies should intermittently visit schools to ensure that formative tests are administered and that collated data on these are given to them on the spot. These bodies should utilize the continuous assessment results as part of the real results so as to encourage other students coming behind to take their studies serious. Stakeholders must ensure that feedback mechanism is used in the schools to engender better students' performance academically by being part of the whole exercise and also by being interested in it. All hands must be on deck to encourage and sustain the use of feedback mechanism in secondary schools, if students' academic achievement were to be improved.

An experiment could be carried to further and more authentically prove the efficiency of the study as the problem of non – uniformity imposed by the ex-post facto design employed for the study has limited the generazability of its findings.

REFERENCES

- Abe, C.v. (1999). "Educational Evaluation and Quality Control in Secondary School in Nigeria in J.O. Obemeata, S.O. Ayodele, and M.E. Araromi (eds), Evaluation in African in honour of E.A. Yoloye (pp. 122-128). Ibadan: Stirling – Horden Publishers (Nig) Ltd.
- Apara, S.A.E. (2005). Effects of programme instruction and peer-tutoring on students' learning outcome in secondary social studies in Kogi State, Nigeria. An unpublished Ph.D. thesis at Institute of Education, University of Ibadan, Nigeria.
- Bajah S.T. (1980). Intricate Programme Evaluation Climate in Rapid Developing Third World Country. Nairobi: SEPA.
- Bajah S.T. (1986). Evaluating Impact of Curriculum Institute: A Nigerian Case Study In the first draft of J.C. Bruggen, (ed). (July 1986) National articles for the special issues of studies in educational evaluating impact of in stitute for Curriculum development (The Netherlands).

- Balogun, T.A. and Abimbade, (2002). Introduction to instructional technology: University of Ibadan Centre for Studies Material.
- Damachi, U.G. (1978). Theories of Management and the Executive in the Developed Countries. London: The Macmillan Press Ltd.
- Ehinder, S. (1986). Curriculum Foundations and Development. Lagos: Concepts Publications Ltd.
- Federal Ministry of (1977). National Policy on Education. Lagos: NERDC.
- Federal Ministry of (2004). National Policy on Education. Lagos: NERDC.
- Hayman, Jr., J.C. and Rodney N.N. (1975). Evaluation in Schools: A Human Process Of Renewal.
- Jha, S.R., Ghosh, C.K. and Mehta, P.K. (2006). Networked & decentralized learner support in Garg, S.; Venko, J.R. Puranik, C. and Panda, S. (eds.) Four Decades of Distance Education in India. New Delhi: Viva Books Publishing Ltd. 277-289.
- Joint Admissions and Matriculation Broad (JAMB) (2006) Universities Matriculation Examinations Brochure. Abuja: JAMB.
- Keith, L.A. and Gudellini, C.E. (1975). Introduction to Business enterprise, 4th Edition. New York: Mc Graw Hill Books Company.
- Obemeata J.O. (1984). The Emerging field of Educational Evaluation. Nigeria Educational Forum 7.2..215-21 (Dec. 1984).
- Onuka, A.O.U. and Obialo, F.O. (2004): Causes of and solutions to Examination Malpractices in Nigeria: The perception of some stakeholders in Afemike, O.A. & Adewale, J.G. (eds.) issues in Educational Measurement and Evaluation in Nigeria in honour of Wole Falayajo. Ibadan: educational Research and study Group, Institute of Education University of Ibadan.
- Onuka, A.O.U., (2007). Research for improved teaching in Kogi State, Nigeria. A paper presented at the West African Examination Examinations Council Headquarters Research Division Lagos, Nigeria. WAEC Monthly Seminar, 26th January 2007.
- Roy-Macauley, C.A. (1988) Valuation of the Sierra Leone Social Studies Population Education Programme. An unpublished Ph.D. thesis at the Institute of Education, University of Ibadan.
- Umoru-Onuka, A.O. (1996). An Impact of Evaluations on the Training Programme of Agriculture and Rural Management Training Institute, Ilorin.
- Umoru-Onuka A.O. (2003): Accountability in Education for Improving Student performance in J.B Babalola, and S.O. Adedeji (Eds).

- Current Issues in Educational Management, University of Ibadan (PP 125-136).
- WAEC (undated). Statistics of Performance in Economics, May/June WASSCE from 1980-2004 adapted.
- Xun, G. and Susan, M.L. (2003). Scaffolding students' problem solving processes in ill-structured task using question prompts and peer – interacting in educational technological research and development 5(1) 98-110.
- Wiggins, G. (1998). Educative assessment – designing to inform and improve student performance. San Francisco: John – Wiley & Sons, Inc. (Jossey-Bass).
- 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.
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