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SCIENCE TEACHERS' VIEWS ON THE PROBLEMS OF IMPLEMENTING CONTINUOUS ASSESSMENT IN SECONDARY SCHOOLS

Dr. (Mrs) Bolanle T. Danmole
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By
Dr. (Mrs) B.T. Dannole

ABSTRACT

The study was concerned with the problems of implementing continuous assessment in schools. A questionnaire was designed to elicit responses from eighty-one (81) science teachers. The results of the study revealed that there was an agreement among the science teachers that implementation of continuous assessment constitute a major educational problem.

Finding revealed that lack of adequate number of trained science teachers is the most important problem impeding the successful implementation of the continuous assessment programme. Other problems rated high were number of periods per week ranked 2nd, continuous assessment demands a lot of record keeping ranked 3rd, class size ranked 4th. The study showed that administrative problems are amongst the most important problems hindering the successful implementation of the continuous assessment programme.

INTRODUCTION

A major aspect of the new National Policy on Education is its emphasis on continuous assessment would be the mode of assessment of pupils and students at all levels of education in Nigeria. However, this is not strictly so as it gives the impression that terminal examinations have been eliminated. This is far from true, since the senior secondary school certificate examination is very much in full operation. For instance, in section (1) subsection (7), the policy contains the following:

"Education assessment and evaluation will be liberalised by basing them in whole or in part on continuous assessment of the progress of the individual".

In essence, continuous assessment is a procedure which takes into account a pupil's comprehensive performance in terms of academic achievement, attitudes, character development and skills throughout the specific duration of the particular course, or syllabus. Also, Ipaye (1982) identified six characteristics of continuous assessment as systematic, comprehensive, cumulative, diagnostic, formative and summative. Indeed, the justification for the inclusion of continuous assessment in the policy has been reiterated as often as one comes across the concept. Arguments in favour of the desirability of continuous assessment have been put forward because of its obvious advantage over the traditional approach to assessment. In summary, continuous assessment is relatively a more genuine and valid form of assessment of pupils' overall ability and performance.

The introduction of the continuous assessment programme is relatively new in the Nigerian educational system. Researchers have expressed their views on the implementation of the programme with mixed feelings. Among relevant publications are those of Soyibo and Fasunloye (1984) who in their studies discovered that the differences observed in students' performance based on continuous assessment was significant in physics, chemistry and biology in all six schools from where the sample was drawn.

Ogwe (1981), observed that continuous assessment would go a long way at curbing the much criticized over-emphasis on paper qualification and examination leakages with the commencement of continuous assessment. However, some researchers have expressed fears as regards the implementation of the programme. Ogan (1981) observed that considering that teacher: student ratio in Lagos State Primary Schools is 1:70; and speculated that under such circumstances the proposed continuous assessment system would be almost impossible to implement. Akinjobi (1982) also expressed worries over the programme and wondered if an 'A' grade in one school could be considered the same in another school under the continuous assessment system.

Bajah (1984) in his study, enumerated misconceptions about continuous assessment which may affect the proper implementation of the programme. Laying emphasis on practical work, he stated the modalities for assessing practical work in science and development of standardised instrument for assessing practical work. Also, Falayi (1983) put forward a proposal for theoretical presuppositions and procedure for implementation of the continuous assessment programme at the national level.

Science subjects like all others in the school curriculum have to be assessed by the continuous assessment procedure. Fortunately, the three major components of learning namely cognitive (knowledge), affective (attitude) and psychomotor (practical work) are all areas on which the assessment is being based. All the three aspects of science are indispensable and thus, must be inclusive in the assessment procedure which rests on the shoulders of science teachers.

In spite of the reception accorded the idea of continuous assessment and the setting up of various committee at the Federal, State and even the school level; also, with provision of guide lines for the completion of the terminal report sheets and annual report cards to schools, implementation of the programme thus far has been impeded by multifarious problems. The problems range from administrative; policy, to training-related. The focus of this study is to sample science teachers' views on the problems of implementing continuous assessment in secondary schools. Which are the most important problems in the perception of science teachers impeding the implementation of the continuous assessment programme in secondary schools?
METHODOLOGY

Subjects

Subjects for the study were science teachers drawn from Secondary Schools in Ilorin metropolis. Science teachers of both Junior and Senior Secondary Schools teaching integrated science, biology, chemistry and physics were given the questionnaire. Eighty-one (81) science teachers participated in the study. Altogether, one hundred and fifty (150) questionnaires were sent out to all the science teachers in the different secondary schools in Ilorin. One hundred and twenty (120) questionnaires were collected from the respondents. However, Eighty-one (81) of the number collected were properly filled. Forty-seven (47) 58% male and Thirty-four (34) 42% female science teachers turned in properly filled questionnaires. Also, Thirty-two (32) 40% respondents had less than five years teaching experience and forty-nine (49) 60% had more than five years teaching experience. Twenty-four (24) 30% science teachers had less than twenty periods of teaching a week and fifty-seven (57) 70% had more than twenty periods. Thirty (30) 37% teachers taught only one science subject while fifty-one (51) 63% taught two or more science subjects. Furthermore, fifty-one (51) 63% of the science teachers taught in Government School and thirty (30) in schools under the schools' Management Board.

Instrument

Information was collected by the use of a questionnaire. The questionnaire consisted of two sections. Section A, sought demographic data on the respondents such as sex, year of teaching experience, number of periods of science per week, number of science subjects taught and type of school of respondents. Section B, consisted of ten selected problems encountered by science teachers as regards the current continuous assessment procedure advocated by the Federal Ministry of Education. The respondents were required to indicate whether they agree that the statement were problems and if they did, to rank the statements in order of importance. The ranking assigned to each statement with the least cumulative ranking is considered the most important problem impeding the successful implementation of the continuous assessment programme. This problem is then assigned a rank order of number one. The next statement that received the next least cumulative ranking is given rank order number two. This process was followed progressively so that the highest cumulative ranking is regarded as the least important problems and thus, is given rank order of ten. Five of the problems were administrative, four were related to the policy and one was training related.

Validation of the Instrument

A survey had earlier on been conducted to seek the opinion of forty science teachers in the Institute of Education, University of Ilorin. These science teachers were registered students participating in the Sandwich B.Sc (Ed) programme of the University. Fifteen statements considered to be problems of the continuous assessment programme were contained in a questionnaire given to them. These teachers were asked to tick (✓) the statements they considered to be problems out of the (15) and add more statements they consider should be included if they so desired. From their responses, ten statement emerged as problems and the other five not considered as problems were not included in the main study.

RESULTS

Problems Impeding the Implementation of the Continuous Assessment Programme

Table 1 shows the respondents' ranking of the problems impeding the successful implementation of the continuous assessment programme. Data analysis revealed that all the respondents were of a consensus of opinion that all the problems selected were all important and operating in the implementation of continuous assessment. Findings also indicated that the problems perceived by the teachers as the most important impediment is lack of adequate number of trained science teachers, which has been assigned no. 1 under the rank order column. Other problems have been assigned various numbers accordingly with the least important problem given rank number 10.

Table 1

<table>
<thead>
<tr>
<th>S/No</th>
<th>Statement of Problem</th>
<th>Sum Total of Ranks Assigned to Problems</th>
<th>Rank Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Lack of adequate number of trained science teachers</td>
<td>252</td>
<td>1</td>
</tr>
<tr>
<td>2.</td>
<td>Continuous assessment demands a lot of record keeping</td>
<td>351</td>
<td>3</td>
</tr>
<tr>
<td>3.</td>
<td>Heavy responsibility of planning of lessons and practical work in addition to marking, correction of assignment on teachers</td>
<td>423</td>
<td>5</td>
</tr>
<tr>
<td>4.</td>
<td>Number of periods taught a week is high and science teachers teach more than one subject</td>
<td>303</td>
<td>2</td>
</tr>
<tr>
<td>5.</td>
<td>Assessment of the affective and psychomotor aspects in addition to cognitive makes implementation difficult</td>
<td>476</td>
<td>6</td>
</tr>
<tr>
<td>6.</td>
<td>The number of students in each classroom is too large (class size)</td>
<td>395</td>
<td>4</td>
</tr>
</tbody>
</table>
SUMMARY OF RESULTS AND DISCUSSION

The results of this study indicated that the respondents were in agreement in their opinions as regards the ten problems impeding the successful implementation of the continuous assessment programme. From table 1, it is noteworthy that the science teachers expressed the view that the most important is lack of adequate number of trained science teachers. This finding is in agreement with Soyibo and Fasunayo (1984) whose study revealed that the basic problem of implementing continuous assessment successfully in schools is lack of sufficient qualified dedicated teachers. In this study, other problems rated high were number of periods taught per week; ranked 2nd; continuous assessment demands a lot of record keeping; ranked 3rd; and the number of students in each classroom is large (class size) ranked 4th. It would seem that administrative problems are amongst the most important problems hindering the successful implementation of the continuous assessment procedure.

The results of this study also revealed particularly from table 2, that sex or gender did not influence the science teachers opinion in the ranking of the ten selected problems. However, from table 2, findings showed that years of teaching experience; number of periods taught in the school and the type of school respondents; were important factors that influenced the opinion of science teachers. It is interesting to note that there are also factors which border on administration as indicated in table 2 that a statistically significant different was reported between the different subgroups paired together using Kruskal Wallis test to determine if significant differences occurred between the groups.

The fact that lack of adequate number of trained science teachers ranked first, as the problem impeding the successful implementation of the continuous assessment programme is indicative of the need to find a lasting solution to this major problem. Although the ratio 60:40 enrollment of science students to arts students is currently one of the national admission policies into the tertiary institutions, the shortage of science teachers is still with us. Oyanna (1979) made his opinion clear that the acute shortage of science teachers, has several negative effects on our determined efforts to progress technologically. The effect of lack of trained science teachers no doubt also would have a negative effect on the successful implementation of our continuous assessment programme. Although, the old problems of low enrolment of student for the sciences has reduced considerably, it would seem that employment of science graduates as teachers by the government, both Federal and State has reduced as a result of the current economic predicament of the country. The tendency is that, the few science teachers in the school system may not be able to cope with the demands of the continuous assessment. Hence, with the inadequate number of science teachers available to implement the continuous assessment programme, the purpose for which continuous assessment was included in the Nigerian Educational system may soon be defeated.
Also, administrative problems such as number of students in a class (i.e. ratio of teachers to students); number of periods taught per week; number of science subjects taught; and the demand of record keeping would gradually be eliminated when solution is found to the problem of lack of adequate number of science teachers.

CONCLUSION

Continuous assessment has been found to increase the possibility of accurately identifying and alleviating learning difficulties (Ohogvan, 1979). Also, the nature of the assessment is such that appraisal is carried out at regular intervals throughout the period of the learner's study in school rather than at the end. Hence, such an arrangement demands a lot of time and energy from the science teachers. If science teachers are to be entrusted with the effective implementation of the continuous assessment programme with respect to science instruction, solutions to lack of adequate number of trained science teachers and other administrative problems must be tactfully tackled.

REFERENCES


Oyanna, G.K. (1979): Combating the shortage of Science Teachers in Nigerian Schools. Journal of Science Teachers' Association of Nigeria (JOSTAN) 30 (1);