One of the very important factors leading to the success of any teaching and learning task is the awareness, of both the learner and the teacher in the instructional process, of the degree to which the learner has achieved the learning objective at each performance. This is not usually possible in a fairly big class in which the enrolment is between thirty to forty four pupils.

In the traditional mode of instruction, tests are administered terminally or monthly to assess the performance of the pupils. The feedback is usually received too late for any effective remedial action. Consequently the learning gap among the fast and slow learners grows larger and larger. Very often it becomes so great that the slower learners tend to be neglected in the later stages of the curricula because the large enrolment of the class does not allow the teacher to cater for their special needs. Under such circumstances, how can we improve the teaching and learning efficiency, and how can learners obtain faster feedback of their learning performance? Until and unless we can answer these questions, the teaching and learning task will not be able to make much headway in its productivity.

A Solution for Consideration

A computer programme has been written to assist teachers in solving the above mentioned problems. The programme is written for use by schools which have set up a microcomputer laboratory with adequate numbers of APPLE or IBM PC systems. The programme provides the teacher with a simple way of entering a maximum of twenty multiple choice items, each with three distractors and the correct response. The programme also provides the learner with a second chance of answering each question if he makes a mistake at his first attempt. His first attempt scores two points and the second attempt scores one point. If he does not get
the correct answer at the second attempt, the correct answer is made known to him immediately but he scores no point for that question. The computer keeps a record of his performance in every question and at the same time informs the learner immediately at the end of the exercise with a summary of his performance. The percentage of correct answers is also made known to the learner so that he is aware of the degree of achievement in the learning task.

Equally important, if not more, is the feedback to the teacher in the form of a printout by the printer attached to the microcomputer system. With the immediate information provided, the teacher will be able to decide whether there is a need for the learner to do the exercise once more as a form of practice and drill, especially for the slower learners. Thus, immediate remedial teaching can be given to assist the learner to achieve the instructional objectives as soon as possible.

Consequently, all learners in the class will be able to progress at a faster rate if such practice can be administered more frequently. Since the computer does all the checking of answers, a certain amount of automation is introduced into the instructional process. Teachers will have time for more creative work such as diagnosing the difficulties of each learner or prescribing more challenging tasks to suit the abilities of the pupils. For the learners, they will have the opportunity to have regular drill and practice with immediate feedback on their performance. They are thus constantly motivated to achieve the learning objectives.

**An Item Bank In The School**

The programme written provides the school with an instrument to set up its own item bank if the staff wish to do so. There is no need to print any more test papers whenever any teacher wishes to conduct a test after she has constructed and entered the set of questions and answers. The set can be numbered and catalogued according to subject and level. There will be no messy printing, and no delay of availability of answer scripts. Students
will take their time to answer the questions and the total time taken by each pupil will also be recorded in the feedback slip to the teacher, who can always keep an up-to-date record of the students' performances.

The Productive Instruction Programme

The productive instruction computer programme is written in BASIC, a high level computer language easily comprehensible to teaching professionals. Teachers who are interested in obtaining a copy of the program for school use may write in through the principal to the author. A school-based workshop can also be conducted for staff who wish to have hands-on experience with the instrument.