

# TOWARDS EFFECTIVE PROVISION OF FEEDBACK ON SKILL LEARNING FOR THE 21<sup>ST</sup> CENTURY

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## Abstract

An increased emphasis has been placed on skill development in the youth in technical colleges in Nigeria. Subjects such as Introductory Technology, Business Studies, Agriculture, Home Economics as well as Fine and Applied Arts have been introduced. Such vocational subjects are intended to equip the learners with useful skills and improve their employability. This, it is believed, is because of the realization that the acquisition of these skills will make the individual capable of serving in a job and making a living out of it. This paper, therefore, takes a look at the need for effective provision of feedback on skill learning, the types of measurements for providing the feedback, advantages and disadvantages of the measurements. The paper also considers the instruments for recording the performance assessed and suggests ways for improvement in the methods for providing feedback on skill learning.

## Introduction

Providing feedback is an important aspect of learning, especially the psychomotor area. A learner cannot be said to have learnt anything until the process of determining the extent to which he/she learnt has been applied.

Learning outcomes in education include the cognitive, the psychomotor and the affective although most of the times, only the cognitive aspect is considered. The psychomotor aspect of education has remained uncared for, which explains why skill learning has not been given its proper place.

According to Okoro (1994), any curriculum that ignores the assessment of psychomotor skills is neglecting character and industry as many activities in science and technology call for assessment of psychomotor skills. It has generally been agreed that activities requiring finger dexterity must be seen to be complete and comprehensive, there must be assessment of skills in the psychomotor outcomes.

## The Need for Effective Provision of Feedback on Skill Learning

Vocational technical education, according to Olaitam (1996), is all about the preparation of an individual for work situation in industry, the skills required and acquiring them. Since skill acquisition is geared towards specific tasks, assessment of learning outcomes in skills through appropriate strategies should manifest effectively through job placement.

If the feedback provided on skill learning is an accurate one, then the industry will be in a position to know exactly the areas that the new intake into the industry would need more training to fully equip him or her for the tasks that are to be accomplished by the intake. At the same time, accurate reporting or effective provision of feedback on the industry requires such skills.

Okoro (1993) believes that vocational technical education is deemed competent to teach the required skills for the categories of occupations that exist in industry. The author believes vocational technical education would present exactly the skill standard attained by an individual in a particular job and present the right habit and skills of a particular occupation. According to Olaitan (1996), even though employment in the labour market is unending and enormous, a lot of graduates lack adequate training and relevant skills to fit into the existent jobs. This is as a result of an inefficient feedback on skills possessed by the graduates.

## Types of Measurement for Providing Feedback on Skill Learning

Two main methods found very useful by some educational experts are discussed in this paper. These include:

1. Process measurement, and
2. Product measurement.

## Process Evaluation

Erikson and Wentling (1976) consider the process evaluation to involve observing the student while carrying out his practical activity and rating him on the process. Evaluation therefore involves a close observation of the student as he goes through the coming up with the product. Experts believe this process evaluation would make the assessor have a more clear view of the competencies of the student. The student in the process evaluation is assessed on all the steps and procedures for arriving at the finished product. Experts believe a good and useful product will result if all the processes are correctly

followed. Imandojewmu (2001) lists the tasks carried out in a process evaluation to include:

- j. Selection of appropriate tools.
- ii. Sequential approach to the task.
- iii. Safety observation, and
- iv. Time spent on task.

Process measurement, it is believed, ensures and guarantees confidence in the candidates by employers of labour and other users as such candidates are known to possess those skills they have been reported to possess.

### **Advantages of Process Evaluation**

Okorie (1994) lists the advantages of the process measurement of the skill development to include.

- i. Direct assessment of the student in the tasks or steps by the teacher is enabled. This ensures a direct assessment of the quality of performance by the student, ii. Process evaluation is also known to enable the teacher to have something to say about such factors as mistakes made during production and the speed taken to accomplish the task. These factors are very important to the industry in deciding whether to engage an applicant or not. Industries would like to avoid employing workers who would make serious mistakes in the course of production or be slow in production.

### **Disadvantages of Process Evaluation**

Good as the process evaluation may seem, as stated above, experts still find few things against it,

1. The objectivity of assessment may be lacking. This, it is believed may be as a result of the human factor which may tend to play itself while the learner is being assessed. The assessor may hate the candidate and so decide to score him low in all the traits.
2. The nature of practical lessons or tests is such that much time may be involved in the execution of the task. Since the assessor may stay from the beginning to the end of the task, much of his time may be wasted.
3. It is believed that there may be more than one way of coming up with a finished product. This confirms a popular saying that there may be many ways of killing a rat. An assessor may decide to penalize a candidate for using a different method to come up with a product even though the used method may lead to the product being realized.

### **Product Evaluation**

This form of evaluation is only interested in the final product and awards marks for the product presented without caring to know how the product was arrived at. A wooden chair produced would be assessed on the basis of strength and beauty as well as good joints and finishing. Product evaluation is known to ignore the time taken to accomplish the task as well as whether correct procedure was used or even if the correct tools were used to arrive at the finished product.

### **Advantages of Product Evaluation**

Products can be measured and evaluated more objectively as it is easier to assess the chair that has been completed than assessing the process of constructing one. Product evaluation saves the time of the assessor as it does not take much time to assess a work that lasted a very long time.

### **Disadvantage of the Product Evaluation**

- i. Product evaluation, unlike the process, takes into account the final product and ignores other factors like time efficiency or correct procedure .
- ii. It will take a very long time to arrive at a student's score where the product will take a very long time to be realized like in Agric or even Business, iii.
- iii. A mistake made in the process may affect the final product. Product evaluation may not take care of this fact and the assessor may go ahead and score the product without looking at the many steps that were not correctly taken.

### **Instruments For Assessment of the Mastery of Specific Skills**

To provide effective feed back on students' performance, varied instruments and techniques are

used in the assessment. These, Nwachukwu (2001) lists as instruments for. i. Assessment of students' mastery of related technical information, ii. Assessment of specific skills. iii. Assessment of projects. iv. Assessment of attitudes, work habits and safety habits.

The author believes that the assessment of mastery of related technical information must involve:

- a. Clear Statement of the instructional objectives in skill learning.
- b. Directing the instruction towards the achievement of the goal of teaching the skill as well as.
- c. Testing whether the skill has been learnt.

### Assessment of Mastery of Specific Skills

Nwachukwu believes this assessment should be done while observing and supervising students at work. According to him the rating scale must show the skills to be demonstrated by the learners. The students perform the skills and are rated by their teacher.

In cutting a tenon joint in woodwork, for example, the teacher identifies the various steps or procedure for arriving at a well-cut tenon. These are listed as:

- i. Marking the tenon correctly.
- ii. Cutting on the shoulder lines.
- iii. Cutting the lines for the tenon thickness.
- iv. Removing the wastes.
- v. Cleaning the tenon.
- vi. Testing for completion.

The steps or skill areas are taken to be activities the learner must perform before arriving at a finished tenon. The activities are each awarded scores as maximum marks to be obtained. The actual marks or scores attained or obtained are then entered during the marking of the piece of job as shown below. **Cutting a Tenon (Mastery of Specific Skills)**

S/No	Activities (Did the Learner	Max. Score	Obtained Score
i	Marked correctly?	5	?
2	Cut on the shoulder line?	5	?
3	Cut for the thickness of tenon?	5	?
4	Removed the wastes?	5	?
5	Cleaned the tenon?	5	?
6	Tested for completeness?	5	?
	Total Score	30	?

### Assessment of Projects

As has been discussed, the assessment of projects may involve either the process and product or merely process or product.

Most of the times technical teachers prefer the product assessment of projects because this assessment saves time. However process assessment has been favored because of its nature which allows the teacher to identify the weak points of the learner and, if the assessment is not summative, then the teacher has time to correct wrong moves or steps taken by the learner.

Assessment of projects, experts believe, should not be allowed to wait till the project is completed. It should start and continue as the work progresses. The assessor should supervise or monitor the progress of the work to its completion.

The major areas of a project may include.

	Area of Project	Max. Score	Marks Obtained
1	The design of the project	10	7
2	The planning phase	10	?
3	The construction phase	10	?
4	The completion phase	10	?
	Total Score .	40	?

### Assessment of Attitudes, Work Habit and Safety Habits

Experts believe assessment of attitudes, work and safety habits can only be assessed through observation as they are not written down and cannot be observed after the work has been completed.

Attitudes, the experts state, can only be observed and that the teacher must make a rating scale

which includes attitudes like cooperation with fellow workers, observation of safety habits, obedience to instructions etc.

An observation test for attitudes, work habits and safety habits is shown below:-

	Display of Attitudes to Work and Safety Habits	Maximum Marks	Obtained Marks
1	Cooperation with others	5	?
2	Observance of safety regulations	5	?
3	Obedience of instructions	5	?
4	Handling of equipment during work	5	?
5	Care of equipment after work	5	7
	Total	30	?

### **Recommendation for Improving the Feedback on Skill Learning by the Teacher**

3. Process evaluation should be embarked upon by those who evaluate skills. This will help in correcting wrong moves in the process of carrying out skill learning.
2. Learners should be encouraged instead of being discouraged by the punitive measures that may come as a result of wrong moves.
3. The means should be seen to justify the end. The end product should not come in spite of wrong steps.
4. Students should be given the opportunity to develop skills as a result of practice.

### **References**

Imandojemu, A.A. (2001). *Perspectives in Vocational Technical Education: Concepts Philosophy and Assessment*.

Nwachukwu, C.E. (2001). *Designing Appropriate Technologies in Vocational Technical Education for Nigeria*. Nsukka: Fulladu Publishing Company.

Oiaitan, S.O. (1996). *Vocational and Technical Education in Nigeria: Issues and Analysis*. Onitsha: • Noble Graphic Press.

Okorie, J.U. (2001). *Vocational Industrial Education*. Bauchi: League of Researchers in Nigeria.

Okoro, O.M. (1993) *Principles and Methods in Vocational Technical Education*. Nsukka: University Trust Publishers.