**Knowledge assessment**

**1- Definitions of the concept of educational evaluation**

- Evaluation is the operation which produces a value judgment, based on the implementation of a reliable measurement tool with the aim of making a decision.

- Evaluation is a deliberate and socially organized act leading to the production of value judgments.

- Evaluation consists of: collecting a set of relevant, valid and reliable information and examining the degree of adequacy between this set of information and a set of criteria that are relevant in the choice, valid in relation to the objectives, reliable in their use, with a view to making a well-founded decision (De Ketele, 1980).

**2- Functions of learning evaluation**

**2-1 Educational function:**

- Identification and analysis of learning difficulties;

- Proposal of appropriate solutions for remediation;

- Judgment whether the educational objectives to be achieved and the targeted skills have been totally or partially achieved.

**2-2 Administrative function:**

- Formulation of recommendations regarding the promotion and classification of learners;

- Take stock of student performance;

-Make decisions (moving to a higher level, repeating a year, orientation, exclusion)

- Issuance of certificates and diplomas.

**2-3 Social function:**

- Selection of skills according to socially accepted criteria and;

- Preparation for the social and professional integration of students.

**3- Different types of learning evaluation (Bloom, Hastings and Madus, 1971 transposed from the limited typology of Scriven 1967)**

**3-1 Diagnostic assessment (prognosis or predictive):**

This type of assessment occurs before the teaching process. It helps situate the student in their learning by answering the question: Will the student be able to follow the course?

It also represents a means of identifying students' prerequisites to identify difficulties which risk endangering the effectiveness of their learning. The diagnostic evaluation plays the role of supporting the construction of educational strategies to be used by the teacher.

**3-2 Formative assessment:**

This type of evaluation occurs during learning to support this process. It allows us to answer the main question: Is the student on track to achieve the desired objective or the targeted skill?

This evaluation is informative for the student and for the teacher:

Student: Their attention must be focused more on the difficulties encountered in improving their learning. Therefore, this type of evaluation becomes a training tool for the student because it will allow them to become aware of their difficulties in order to get closer to the objectives and skills previously explained at the start of the learning process.

Teacher: Adaptation of the rest of his teaching to achieve the desired objectives according to the difficulties observed in the student. He can also opt for the implementation of differentiated teaching.

- Formative assessment is not translated into grades. It takes the form of: questions asked during the course, application exercises, multiple choice exercises, etc.

- The common error represents an indicator of the presence of obstacles in the students' learning process. The diagnosis of difficulties includes 4 operations: identification of errors, description of these errors, search for their sources and implementation of a system to remediate the difficulties encountered by students.

**3-3 Summative evaluation (Certificative):**

This type of evaluation validates, through measurement, all of the students' cognitive, methodological and psychomotor skills. It answers the question: Have the targeted objectives and targeted skills been achieved?

It takes the form of a report which results in a grade.

The summative assessment comes at the end of a clearly defined training phase (trimester, semester, cycle or course of study) by the competent educational authorities. It serves to institutionally validate the skills targeted by the training.

This has a broader scope because it provides information to the student, the teacher, the family and the educational institution.

The dominance of summative evaluation is explained by:

Mass education (large numbers); delivery of diplomas; competition between training establishments to have and/or defend their reputation.

For the teacher: Formative assessment requires more effort compared to summative assessment.

Note: There are two other types of assessment. It is :

- Normative evaluation: It allows the student to be positioned in relation to other students of the same level (ranking, selection or recruitment)

- Criterion-referenced assessment: It makes it possible to measure the gap in relation to the targeted skills and not in relation to other students. It is generally measured by “acquired/not acquired”

**3- Measuring instruments used in the evaluation of learning**

To measure cognitive, psychomotor and affective learning, the teacher must use instruments to measure the objectives to be achieved and the targeted skills.

A measuring instrument is a means or tool used by the evaluator to collect information, in oral or written form, on the different types of student achievement.

* **Essential characteristics of a learning evaluation instrument:**

-Validity: degree of precision with which the instrument used measures what it is intended to measure;

- Fidelity: Consistency with which an instrument measures real data.

- Objectivity: Degree of agreement between the judgments made by examiners competent and independent.

- Distinction between the different categories of student results: According to the Gauss curve, student results will be classified into 3 categories: low, average and good results.

**Categories of learning measurement instruments:**

**Category 1**: Instruments with production or constructed response (also known as subjective correction): Classic examination composed of open questions; Paragraphs to complete; incomplete texts.

Advantages: These instruments make it possible to assess higher skills of Bloom's taxonomy or classification.

Disadvantages: The object of evaluation is not very clear; correction difficulties; subjective evaluation due to the variability of marks awarded by several evaluators and the result depends on the expression skills of the student.

**Category 2**: Selected response (or objective correction) instruments: Objective-centered tests (each test question is constructed according to a very specific objective or a task to be accomplished in the case of a practical test )

True or false questions; multiple choice questions (MCQ), matching questions, calculation exercises in exact sciences and observation sheets to be completed by the teacher.

Advantages: objective assessment; The result does not depend on the student's expressive abilities.

Disadvantages: The problem of chance in the choice of proposals (Solution: need to offer 5 choices); We cannot target higher skills (analysis, synthesis, criticism, judging, etc.) (Solution: we must ask for the correction of false propositions to give the student an opportunity to express themselves, etc.)

**4- Gaps related to the summative assessment of learning**

- Disadvantages of learning measurement instruments (highlighted previously) and;

- Problem of lack of educational alignment: Educational alignment consists of ensuring consistency between the educational objectives to be achieved and the targeted skills on the one hand, and the educational activities and the evaluation of learning on the other hand.

**Conclusion**

- Need to explain the educational objectives to be achieved and the skills targeted in teaching.

- Importance of using tests (exams) focused on the objectives to be achieved and the targeted skills,

- Corrected the disadvantages of summative assessment (including cramming of students) by strengthening continuous assessment (authentic assessment) based on a multiplicity of instruments for measuring student learning and its spread over time.

- A good evaluation of students' learning is one that provides us with reliable and precise information on their learning and which is practicable in concrete institutional conditions.