CONSTRUCTION OF DIAGNOSTIC TEST

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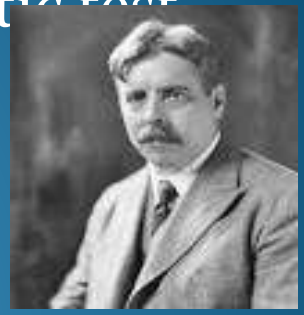
NATURE OF DIAGNOSTIC TEST

- Thorndike and Hagen (1970) suggested that a diagnostic test should provide a detailed picture of the strenghts and Weaknesses of a pupil in a particular area.



- Any test that yields more than a single overall score is diagnostic.

- Diagnosis has become an essential phase of developing plans of adaptational instruction to individual differences.

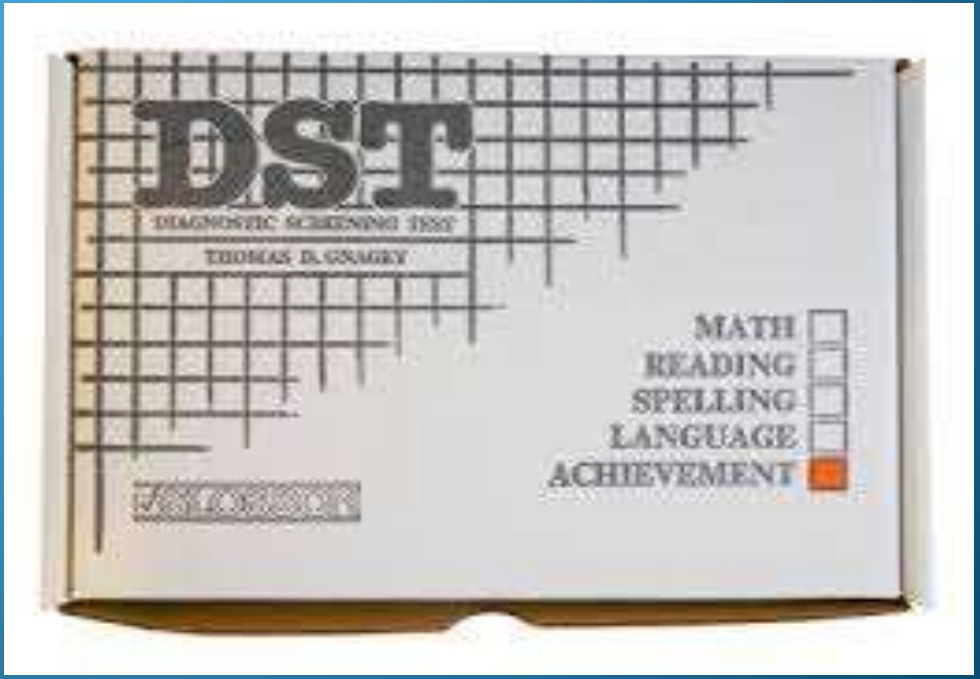
DEFINITION OF DIAGNOSTIC TEST

- A diagnostic test is a test designed to locate specific learning deficiencies in case of specific individuals at a specific stage of learning so that specific efforts could be made to overcome those deficiencies.

- It helps the teachers in identifying the status of learner at the end of a particular lesson, unit or course of learning as to what specific teaching or learning points have been properly grasped by the learners.

DIAGNOSTIC VS ACHIEVEMENT TEST

In an achievement test, sampling of questions is not so exhaustive to cover each and every learning point as the content is generally large portion; whereas in a diagnostic test each learning point has several items, each cluster of such items forming a subset.

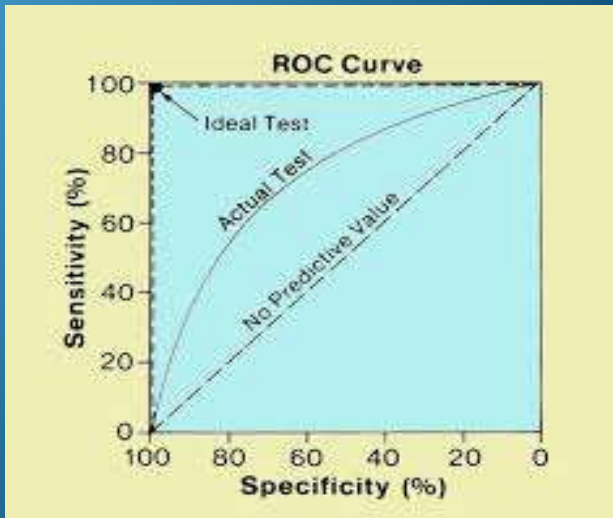


FUNCTIONS OF DIAGNOSTIC TEST

- To direct curriculum emphasis.
- To provide for educational guidance of pupil.
- To simulate the learning activities of pupils.
- To direct and motivate administrative and supervisory efforts.

CHARACTERISTICS OF DIAGNOSTIC TEST

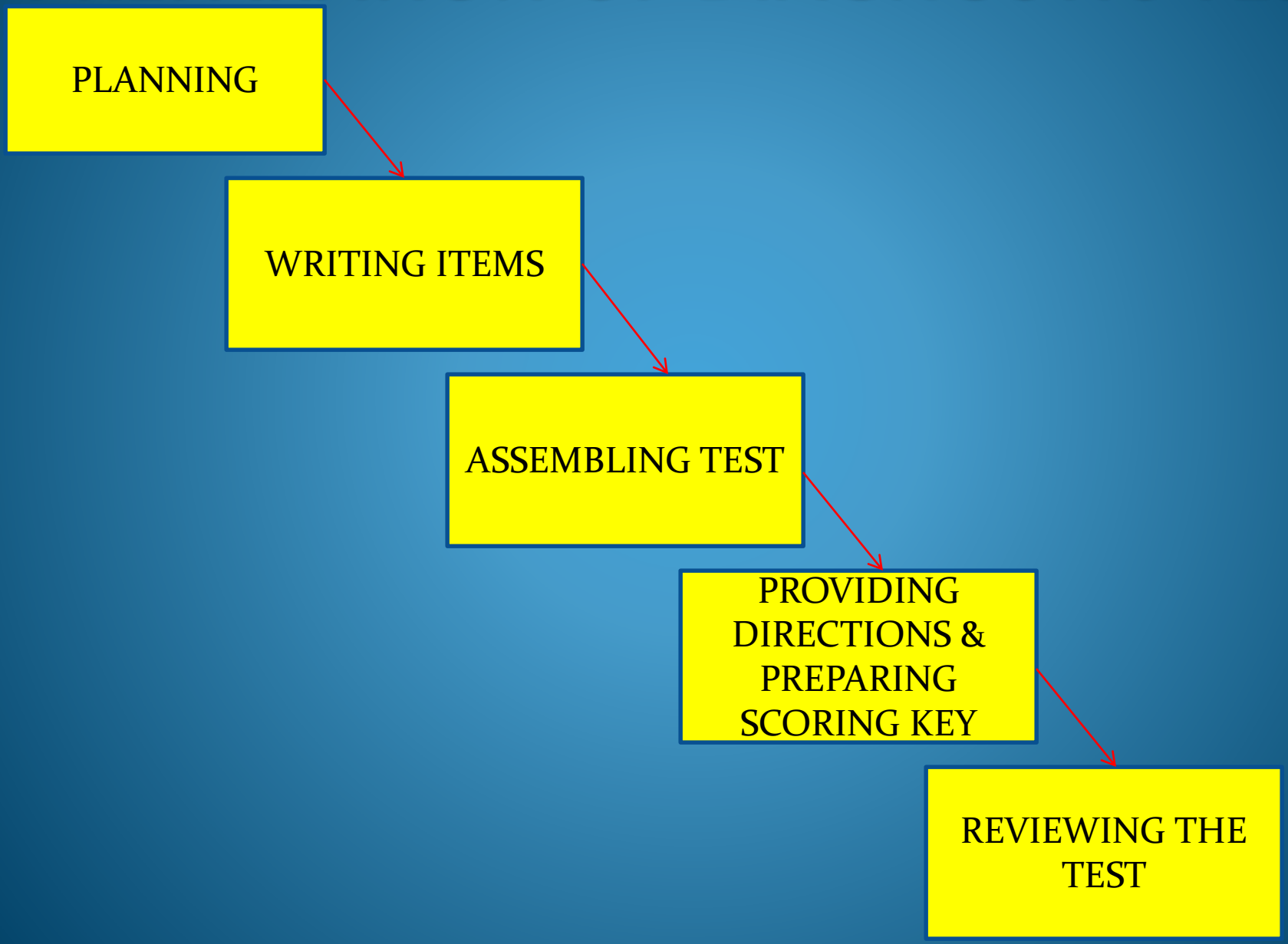
- It must provide a series of scores, each representing performance in a specific skill.
- The respective skills must be critical to the over all performance being evaluated, such as reading achievement or arithmetic achievement.
- The sub test used to access each of these skills must represent a valid measure.
- Each subset must have high reliability.
- The correlation among subset must be low.



CONSTRUCTION OF DIAGNOSTIC TEST

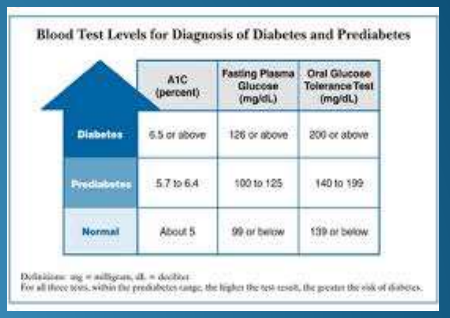
Diagnostic test may be either standardized or teacher made. Teacher-made test besides being more economical are also more effective, as each teacher can frame it according to the specific needs of students.

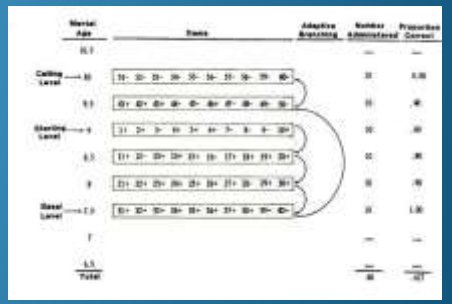
PREPARATION OF DIAGNOSTIC TEST



ADMINISTRATION OF DIAGNOSTIC TEST

- Win the confidence of the students and reassure them that test is to help them in improvement of their learning.
- Administered in a released environment.
- Students should not consult each other during the test.
- If any student is not able to follow something, he should be allowed to seek clarification from the teacher.
- The teacher may ensure that the students the test attempt all questions.
- Time schedule should not be enforced strictly.





ROLE OF COMPUTERS IN DIAGNOSTIC TEST

Several commercial test publishers have developed programmes for interpreting scoring of available diagnostic tests and for combining test scores and other data in the perspective formulation of individual used instructional programmes.

USES OF DIAGNOSTIC TEST

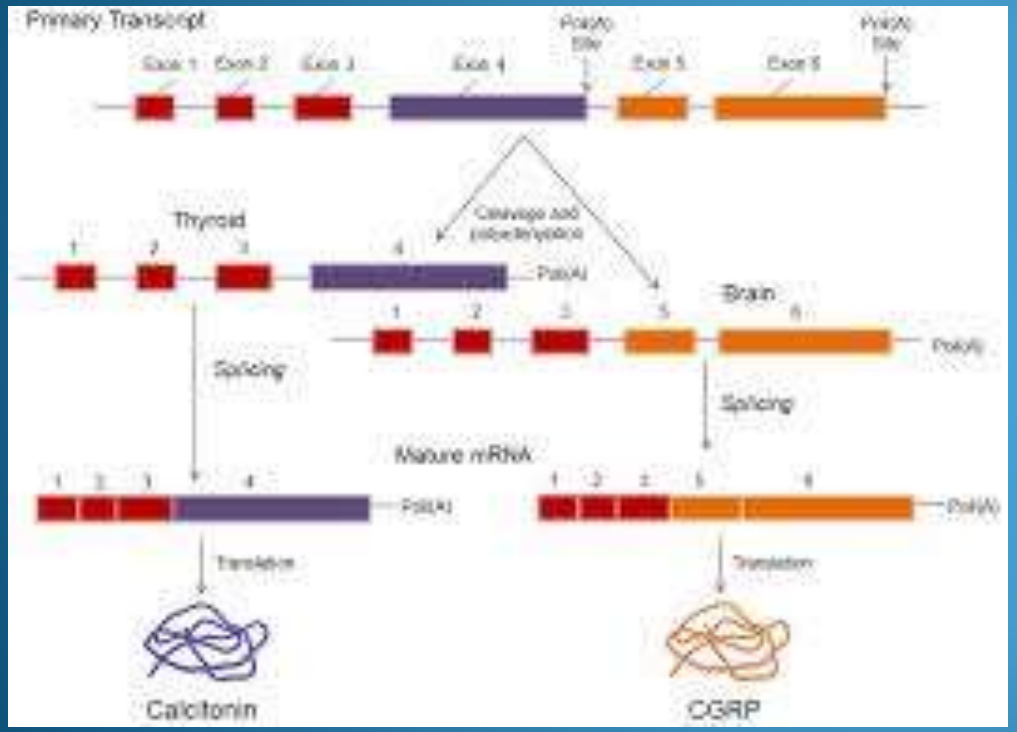
How do doctors use tests?

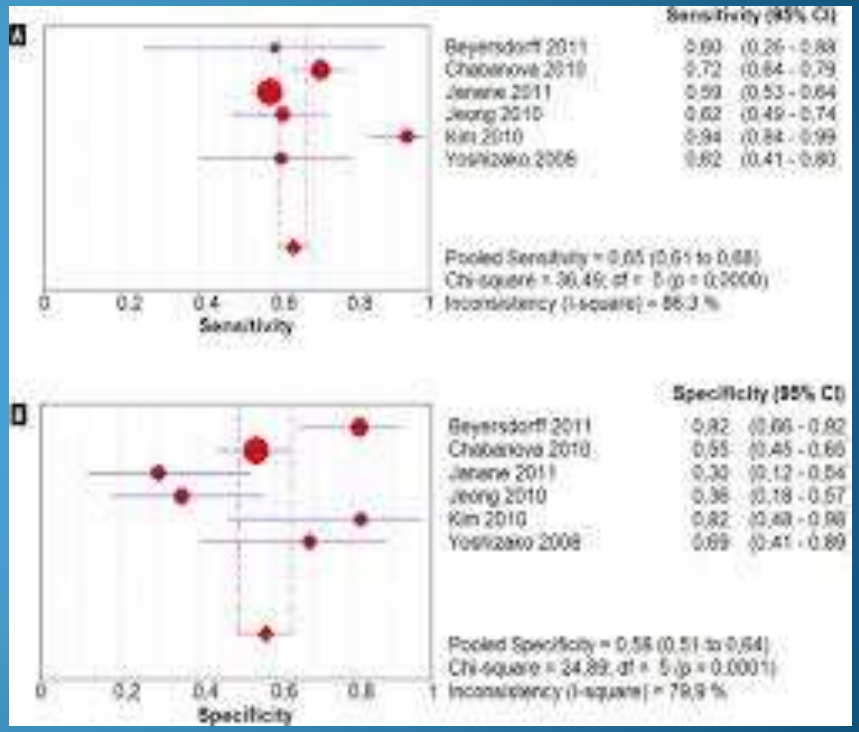
Specialisation	Bayesian method	ROC curve	Likelihood ratios
Specialist physician	5	1	1
Generalist physician	2	0	1
Paediatrician	1	1	0
General surgeon	0	1	0
Family practice	0	0	0
Obstetrics/Gynaecology	0	0	0
Overall percentage	3%	1%	1%

Frequency of use of methods of assessing test accuracy: 50 physicians in each category

Reid et al. Am J Med 98 104: 374-80

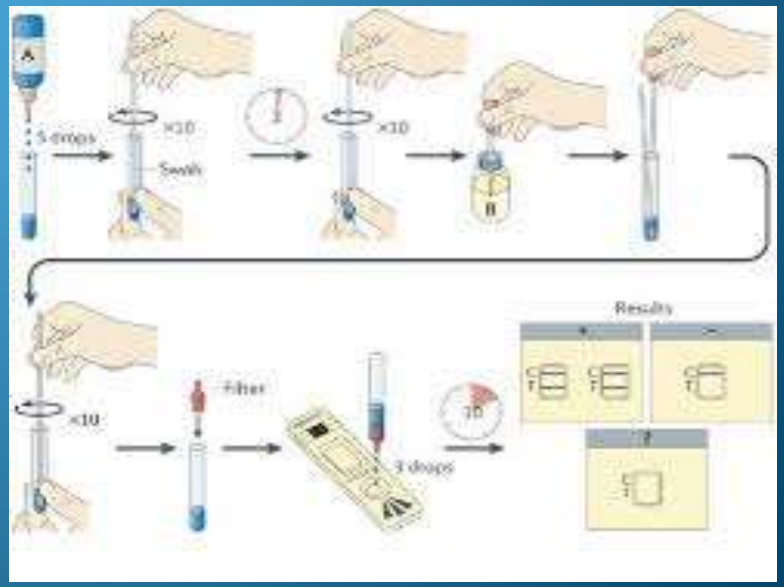
REPRESENTATION OF DIAGNOSTIC TEST





CONCLUSION

A useful test not only provides information about students achievement but also reveals the instructional effectiveness as well. If we examine individual performance, we should be able to determine each students degree of proficiency on each objective.



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THANK YOU ALL