# ASSESSMENT AND EVALUATION IN EFL TEACHING AND LEARNING 

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#### Abstract

In general, assessment and evaluation must be done by every EFL teacher. Most teachers conduct a test or examination to measure the students`achievement in EFL teaching and learning. The tests can be either diagnostic or prognostic. The words`test`and`examination` have a considerable amount of overlap of meaning. They may measure someone's present achievement or delineate his present weaknesses, or they may claim to measure potential. Normally, teachers conduct tests to make assessment and evaluation. The test may be either subjective or objective. In the subjective test, the scoring is impressionistic, not necessarily reliable, dependent to some extent on the marker`s whim or judgment. In the objective test, there is a list of items each with only one correct answer, and the marker `s task is simply mechanical to total the number of `rights `and`wrongs `. An example of a subjective test is the marking of an English essay. An example of an objective test is the multiple choice type of test with the instruction to the students to tick the correct answer. Tests might measure linguistic competence, or they might measure particular skills. Tests can be written or oral. In constructing a test or examination, we need to check the validity in the sense that it measures what it is intended to measure. It is possible for an examination to be reliable but not valid. Reliable means that different examiners award the same marks to the same paper. In general, examinations are more ominous for students than tests. Students might have semester examinations but weekly tests. Examinations sound more serious than tests.


Keywords: Assessment, Evaluation, EFL, Teaching, Learning

## 1. INTRODUCTION

English teachers should be able to assess and evaluate their students` learning achievement. Evaluation has broader sense and function than assessment and test. Assessment and test are the subsets of evaluation. Evaluation is a procedure or method of knowing whether or not the teaching and learning processes have been done by the teachers effectively and properly by knowing whether the indicators, the materials, the learning strategies and media, the assessment procedures, and test items are in agreement with the competencies, the learners, and the learning situation. The evaluation of the quality of teaching and learning process can be obtained from the result of observation, interview, test, and assessment in the classroom.

According to Brown (2003: 4), assessment is an ongoing process that encompasses a much wider domain. To do an assessment, a teacher should consider many aspects in determining the final scores of the students. In addition to the mid-semester and final semester scores, the teacher should also pay attention to the students` participation, motivation, presentation, performance, paper, portfolio, presence, homework, etc. Test is a method of measuring a person`s ability, knowledge, or performance in a given domain. In conducting a test, a teacher should follow a systematic procedure such as planning the test, usually in the form of table of specification or test specification, constructing test items properly, trying the items out to guarantee the test's reliability, administering the test, scoring the test objectively, and evaluating the quality of the test. Test is conducted to measure the students` ability, knowledge, and performance. In other words, it is used to measure students` abilities or competencies. Of course, it is impossible for the teachers to measure all of the students` abilities. They measure only samples of many possible abilities. Therefore, the test items must represent the students` abilities. To represent the students` abilities, the teachers usually use
numbers such as 1 to 100,1 to 10 , or 1 to 4 , or they may use category system such as excellent, good, fair, poor, and very poor or A, B, C, D, E, or pass-fail etc.

Evaluation has the broadest scope in which assessment and test are the sub-sets of evaluation. The teachers usually take the data for evaluation from the results of assessment and test, but they may also take other data using other techniques, such as questionnaire and interview. Then the teachers should analyze the data and the results can be used for improving the teaching and learning process in the forms of remedy or enrichment.

## 2. REVIEW OF RELATED THEORIES

## PURPOSES OF EVALUATION

According to Weir and Roberts (1994), there are two major purposes of language program evaluation: 1. Program accountability. 2. Program development. Accountability refers to the extent to which those involved in a program are answerable for the quality of their work. Accountability-oriented evaluation usually examines the effects of a program at significant end points of an educational cycle and is usually conducted for the benefit of an external audience. Development-oriented evaluation is designed to improve the quality of a program as it is being implemented. The different purposes for evaluation are referred to as formative, illuminative, and summative evaluation.

## FORMATIVE EVALUATION

As part of program development, evaluation may be carried out to find out what is working well, and what is not, and what problems need to be addressed. Formative evaluation focuses on ongoing development and improvement of the program. Some typical questions related to formative evaluation are the following:

- Has enough time been spent on particular objectives?
- Have the placement tests placed students at the right level in the program?
- How well is the textbook being received?
- Is the methodology teachers are using appropriate?
- Are teachers or students having difficulties with any aspect of the course?
- Are students enjoying the program? If not, what can be done to improve their motivation?
- Are students getting sufficient practice work? Should the workload be increased or decreased?
- Is the pacing of the material adequate?


## ILLUMINATIVE EVALUATION

Illuminative evaluation seeks to find out how different aspects of the program work. It provides a deeper understanding of the processes of teaching and learning that occur in the program. Some questions that may be asked within this evaluation are the following:

- How do students carry out group-work tasks?
- What type of error-correction strategies do teachers use?
- What kinds of decisions do teachers employ while teaching?
- How do teachers utilize lesson plans when teaching?
- What type of teacher-student interaction patterns typically occur in classes?
- What reading strategies do students use with different kinds of texts?
- How do students understand the teacher`s intentions during a lesson?
- Which students in a class are most or least active?

Block (1998) mentions the importance of illuminative evaluation in understanding learner's interpretations of the language courses they attend and how learners make sense of their lessons. He suggests that teachers interview learners regularly to find out how they interpret what is going on in a course.

## SUMMATIVE EVALUATION

Summative evaluation seeks to make decisions about the worth of different aspects of the curriculum. It is concerned with determining the effectiveness of a program, its efficiency, and to some extent with its acceptability. It is conducted after a program has been implemented and seeks to answer the following questions:

- How effective was the course? Did it achieve its aims?
- What did the students learn?
- How well was the course received by students and teachers?
- Did the materials work well?
- Were the objectives adequate?
- Were the placement and achievement tests adequate?
- Was the time spent on each unit sufficient?
- How appropriate were the teaching methods?
- What problems were encountered during the course?

In order to decide whether a course is effective, criteria for effectiveness need to be identified. There are many different measures of a course's effectiveness and each measure can be used for different purposes.

## 3. METHODS OF ASSESSMENT

As stated before, test is a part of assessment that can be conducted by teachers to assess the students` abilities. According to Brown (2003: 43-47), test can be divided into three major types; they are: general proficiency test, aptitude test, and achievement test.
A general proficiency test indicates what a student is capable of doing now as a result of his accumulative learning experiences. It is used as a screening test for different purposes, such as:

1) to determine the readiness of a learning program. It is used to separate those who are prepared for an academic program from those who are not.
2) to classify individuals in appropriate language classes by distinguishing the degrees of proficiency which are used as a basis for selecting the treatments for the learners.
3) to diagnose the students` strengths and weaknesses by providing a performance profile which shows the relative strengths and weaknesses in the various areas tested.
An aptitude test serves to indicate an individual's facility for acquiring specific skills. It is a screening test which is usually used to predict future performance by measuring an individual's potencies.

An achievement test indicates the extent to which an individual has achieved skills or information acquired in a formal learning situation. It is usually used to measure the students' achievement of the learning competencies and to evaluate the effectiveness of instruction. It is also used to assess the degree of success of the teaching and learning process.

## THE QUALITIES OF TEST

According to Brown (2003: 17-37), there are three qualities of a test; they are: practicality, reliability, and validity. Practicality refers to the usability of a test. It involves three aspects: economical in time and finance, easy to administer and score, and easy to interpret. A test may be a highly reliable instrument but beyond the means or facilities. In preparing a new test, we must keep in mind a number of very practical considerations. For instance, testing can be expensive. If a standard test is used, we must consider the cost per copy and whether or not the test books are reusable. It should also be determined whether several administrators or scorers will be needed because the more personnel who must be involved in giving and scoring a test, the more costly the process becomes. Closely related to economy in finance is economy in time. In selecting a test, we should pay attention to how long the administering and scoring of the tst will take. The task of a teacher is to select an instrument which is of sufficient length to yield dependable and meaningful results and at the same time will fit to the time available for testing.

Reliability covers students-related reliability, rater reliability, test administration reliability, and test material reliability. A reliability quotient of 1.00 would indicate that a test is "perfectly" reliable. A quotient of zero would indicate a complete absence of reliability. The coefficients found in actual practice usually fall between these two extremes. It is difficult to say precisely how high a reliability quotient should be before it may be regarded as satisfactory. It depends on the kind of decisions one hopes to make on the basis of the test results.

Validity covers content-related evidence, criterion-related evidence, construction-related evidence, consequential validity, and face validity.
Validity refers to the ability of the test to measure what must be measured or what must be tested. It concerns with what to test, how to test, and how far the test results can be related to the real abilities
of the students. In other words, validity covers content validity, face validity, and concurrent validity (Harris: 1996).

Content validity refers to the ability of the test to measure the abilities,/competencies/indicators which must be achieved by the students. Hence, the proposed items, questions, or tasks should represent the ability of the test to measure the students` abilities, competencies/indicators. When a test is designed to measure mastery of a specific skill or the content of a particular course of study, the test must be based on a careful analysis of the skill or an outline of the course. The items should represent each portion of the outline or analysis, not just those aspects which lend themselves most readily to a particular kind of test question. In choosing a test, we cannot just accept the title which the authors have given it because titles can be misleading and inaccurate. Test makers should be able should be able to provide us with information about the specific materials or skills being tested and the basis for their self.

Empirical validity refers to the actual effectiveness of a test to determine how test scores can be related to some independent outside criteria. According to Harris (1996: 20), there are two kinds of empirical validity: predictive validity and concurrent validity. Predictive validity is the ability of the score of screening test or selection test to be correlated with the student's score of the first semester. Concurrent validity is the ability of test scores to be correlated with the concurrent performance of the students. Brown (2003: 24) stated that a test has concurrent validity if its results are supported by other concurrent performances beyond the assessment itself. The best way to check on the actual effectiveness of a test is to determine how test scores are related to some independent, outside criterion such as marks given at the end of a course or instructors` or supervisors` ratings. If the evidence shows a high correlation between test scores and a trustworthy external criterion, we are justified to have confidence in the empirical validity of the test.

Face validity is the way the test looks to the examinees, test administrators, educators, and so on (Harris, 1996: 21). According to Gronlund (in Brown 2003: 26), face validity is the extent to which students view the assessment as fair, relevant, and useful for improving learning. The importance of face validity should not be underestimated because if the content of a test appears irrelevant or inappropriate, knowledgeable administrators will hesitate to adopt the test and examinees will lack the proper motivation. Therefore, the test maker has an obligation to keep face validity in mind although sound methods of test construction should not be compromised just to satisfy public opinion.

## THE PRINCIPAL EDUCATIONAL USES OF LANGUAGE TESTS

According to Harris (1969: 2-4), language tests have many uses in educational programs, and the same test can often be used for different purposes. Here are some of the main objectives of language testing. The categories indicate six different emphases in measuring student ability o r potential.

1. To determine readiness for instructional programs. Some screening tests are used to separate those who are prepared for an academic program from those who are not.
2. To classify or place individuals in appropriate language classes. Other screening tests try to distinguish degrees of proficiency so that examinees may be assigned to specific sections or activities on the basis of their current level of competence.
3. To diagnose the individual's specific strengths and weaknesses. Diagnostic screening tests usually consist of several short but reliable subtests measuring different language skills or components of a single broad skill.
4. To measure aptitude for learning. This screening test is used to predict future performance.
5. To measure the extent of student achievement of the instructional goals. Achievement tests are used to indicate group or individual progress toward the instructional objectives of a specific study.
6. To evaluate the effectiveness of instruction. Other achievement tests are used exclusively to assess the degree of success not of individuals but of the instructional itself.
The six categories above can be grouped into three divisions: general proficiency (categories 1 to 3 ), aptitude (category 4), and achievement (categories 5 and 6). These three divisions can be explained as follows:

- A general proficiency test indicates what an individual is capable of doing now as the result of his cumulative learning experiences, but it may also serve as a basis for predicting future success.
- An aptitude test serves to indicate an individual`s facility for acquiring specific skills and learning.
- An achievement test indicates the extent to which an individual has mastered the specific skills or body of information acquired in a formal learning situation.

Some Principal Language Testing Techniques
There are some common techniques to test language ability of the students such as Translation, Dictation, Composition, scored Interview, multiple-choice items, short-answer items.

## 4. DATA ANALYSIS AND DISCUSSION

## LANGUAGE LEARNING ASSESSMENT

In assessing language skills, teachers usually consider two things: the competencies written in the curriculum and the principles of language skills assessment. Then, they construct the items or tasks of the assessment based on the indicators they have made in the lesson plan.

## ASSESSING LISTENING COMPREHENSION

Listening comprehension assessment is aimed at measuring the student's ability to decode sample of speeches. To decode means to understand and respond properly to the stimuli which are usually provided orally. The basic competences of listening comprehension usually cover three abilities: 1. Students can understand and response the meaning of oral interpersonal and transactional texts. 2. Students can understand and response short functional texts. 3. Students can understand and response monolog of long functional texts. The teacher should select the texts which are in agreement with the competencies, and consider the principles of assessing listening skills. The chosen texts can be dialogues of interpersonal and transactional speeches, oral announcement, invitation, advertisement, or monolog of long functional texts.

## PRINCIPLES OF LISTENING COMPREHENSION ASSESSMENT

Brown states that listening comprehension assessment involves two main aspects: language aspects (micro skill) and contents understanding (macro skill).
Micro skill can be formulated in the following items:

- Discriminating among the distinctive sounds of English
- Retaining chunks of language at different lengths in short-term memory
- Recognizing English stress and intonation patterns to signal information
- Recognizing reduced forms of words
- Distinguishing word boundaries, recognizing a core of words, and interpreting word order
- Processing speech at different rates of delivery
- Processing speech containing pauses, errors, corrections, and other performances
- Recognizing grammatical word classes, systems, and pattern rules
- Detecting sentence constituents and distinguishing between major and minor ones
- Recognizing meanings by different grammatical forms
- Recognizing cohesive devices in spoken discourse

Macro skill can be formulated in the following items:

- Recognizing the communicative functions of utterances according to situations
- Inferring situations, goals, and participants using real-world knowledge
- Predicting outcomes, inferring links and connection between events
- Distinguishing between literal and implied meanings
- Using facial, kinesics, body language to decipher meaning
- Developing and using a battery of listening strategies

Teachers can do bottom-up approach by starting the items from the micro skill followed by the items from the macro skill. They can do top-down approach when they start the items from the macro skill followed by the items from the micro skill.

The stimuli of listening assessment are usually presented orally. The use of mechanical devices such as recorder or language laboratory is better because they provide best guarantee of high
test reliability, they can use the native speaker`s voice, and they can manipulate the speech situations. The questions proposed in the test are usually about the accuracy in understanding the content of the speech, the interpretations of grammatical forms, the prediction of the next events, the inferences of setting of place, time, situation, the tone of the speakers, the people involved, etc.

## ASSESSING SPEAKING

Speaking, as a complex skill, requires simultaneous use of different abilities because the learners need to employ vocabulary,, grammar, pronunciation, intonation, and organization of content of speech at the same time. Speaking ability is the most difficult to assess.
According to the high school curriculum, the students must achieve the following basic competencies:

- Be able to express the meaning of interpersonal and transactional intends
- Be able to express the meaning through short functional texts
- Be able to express the meaning through monolog of long functional texts

In conducting a speaking assessment, teachers should provide stimulants so that the students can perform the oral abilities.

## PRINCIPLE OF SPEAKING ASSESSMENT

Harris (1996), provides some simple aspects to be measured for the assessment of speaking
skill as follows:

1. Pronunciation: including segmental and supra segmental features
2. Grammar: the employment of syntactical structure
3. Vocabulary: the choices of words (diction)
4. Fluency: the ease and speed of the flow of speech
5. Comprehension: Understandability of the speech

## ASSESSING READING COMPREHENSION

The assessment of reading comprehension is used to measure the students` ability to decode written texts. According to the high school curriculum, the basic competencies of reading comprehension cover two abilities as follows:

1. Students can understand and respond written short functional texts.
2. Students can understand and respond written monolog of long functional texts.

Written short functional texts can be in the form of announcement, invitation, advertisement. Written monolog of functional texts can be in the form of description, recount, narrative, hortatory, discussion, etc.

## PRINCIPLES OF READING COMPREHENSION ASSESSMENT

Harris (1996), provide some aspects to be measured in reading comprehension assessment as follows:

1. Language and graphic symbols which cover understanding vocabulary meanings, the grammatical patterns, and graphic symbols (punctuation, capitalization, italicization, etc.
2. Ideas which cover identifying the writer`s purpose and central idea, understanding the subordinate ideas which support the main ideas, and drawing conclusions and inferences.
3. Tone and style which cover understanding the author`s attitude toward the subject and understanding the tone of writing and identifying the methods and stylistic devices by which the author conveys his ideas.

## ASSESSING WRITING

Writing assessment is intended to measure the students` ability to express their ideas and thought through written texts. The basis competencies that must be achieved by high school students are the following:

1. Students can express meaning through written short functional texts.
2. Students can express meaning through written monolog of long functional texts.

In writing assessment the teacher should provide stimuli in order that the students can communicate their ideas through short functional text and monolog of long functional text.

## THE PRINCIPLE OF ASSESSING WRITING

Harris (1996) proposes the components of writing ability as follows:

1. Content: the substance of writing, the ideas expressed.
2. Form: the organization of the contents.
3. Grammar: the employment of the syntactical structure.
4. Style: the choice of structure and lexical items to give a particular flavor for the writing.
5. Mechanics: the use of the graphic convention.

From all test types discussed in the review of related theories, English teachers in Junior High School and Senior High School need to know the achievement test type. They need to make reports on the students` learning results by seeing the students` achievement using some kinds of measurement. The English teachers must know the English syllabus in their schools and adjust the tests to the objectives mentioned in the syllabus. English teachers must be objective in evaluating the students` learning progress so that the students will use it as feedback for future improvements. The English teachers can also use the result of the test to evaluate his teaching achievement. In other words, the Students` learning achievement shows the teachers` teaching achievement. When the students` learning is good, people will say that the teachers` teaching achievement is also good. Conversely, when the students` learning achievement is low, then people will infer that the teachers` teaching achievement is also low.

Every English program must conduct some kind of evaluation report to demonstrate accountability, to help guide improvement of English program, and to document what happens in the program. However, evaluation may focus on many different aspects of a language program, such as:

- Curriculum design: to provide insights about the quality of program planning and organizations.
- Syllabus and program content: how relevant and engaging the program is, how easy or difficult, how successful tests and assessment procedures are.
- Classroom processes: to provide insights about the extent to which a program is being implemented appropriately.
- Materials of instruction: to provide insights about whether specific materials are aiding student learning.
- The teachers: how they conduct their teaching, what their perceptions are of the program, what they teach.
- Teacher training: to assess whether training teachers have received is sufficient.
- The students: what they learn from the program, their perceptions of it, and how they participate in it.
- Learner motivation: to provide insights about the effectiveness of teachers in aiding students to achieve goals and objectives of the program.
- Learning environment: to provide insights about the extent to which students are provided with a responsive environment in terms of their educational needs.


## 5. CONCLUSIONS

English teachers have to make assessments concerning their English teaching results by assessing the process and the outcome of their students` English learning. The assessment of the English learning process can be done at every class session. The teachers need to assess the students` participation during the English teaching and learning process. The teachers must assess the students` involvement during the process of learning by seeing their active participation and creativity in solving problems in the learning process. The assessment on the process of learning contributes to the score of gaining the mastery level of basic competence and some indicators. This assessment can be done through observation by focusing on the students` participation in the process of learning. It can also be done by having authentic proofs of the learning process, such as making some notes, doing exercises, such as structured and unstructured assignments.

In assessing the English learning outcome, the English teachers must know whether or not the students have had competence through the English learning process. The competence can be grouped into three domains: cognitive, affective, and psychomotor. The cognitive, affective, and psychomotor domain assessment can be performed through daily test, mid-semester test, semester test, and final test. The assessment must be based on the general objective containing basic competence and specific objectives containing some indicators and the instruments used in this assessment must be oral and written test and other instruments, such as portfolio, project, etc. The final score is based on the percentage of the assessment given through the daily, mid-semester,
semester, and final test, and based on the one using other instruments. Affective domain assessment should occur in every lesson, providing the teacher with formative evaluation data to use for grading process. The affective domain assessment can be given by asking the students yes/no questions to answer in a written form, choosing whether the statements are true or not true. The assessment on the process and outcome of English learning provides some interpretation concerning whether or not the process and outcome of learning is good depending on the average scores of the students.
After doing the assessment of the process and outcome of English learning, the English teachers can determine the students` mastery level. After the mastery level of the students is determined, the English teachers can select which students have reached the mastery level of English and which ones have not. The students who have not reached the mastery level are given remedial teaching and those who have reached the mastery level are given enrichment teaching.

## REFERENCES

Bloom, Benjamin S., Madaus G.F. and Hastings, J. Thomas. (1081). Evaluation to Improve Learning. USA: McGraw-Hill, Inc.
Boey, L.K. (1975). An Introduction to Linguistics for the Language Teacher. Singapore: Singapore University Press.
Brown, H. Douglas. (2004). Principles of Language Learning and Teaching. London: Longman.
Brown, H. Douglas. (1994). Teaching by Principles: An Interactive Approach to Languange Pedagogy. New Jersey: Prentice Hall Regents.
Celce-Murcia, M., Z. Dornyei, S. Thurrell. (1995). Communicative Competence: A Pedagogically Motivated Model with Content Specifications. In Issues in Allied Linguistics, 6/2: 5-35.
Chomsky, N. (1964). Current Issues in Linguistic Theory. In J. Fodor and J. Katz (Eds., The Structure of Language: Readings in the Philosophy of Language). Englewood Cliffs, NJ: Prentice Hall.
Cook, V. \& L. Wei. (2009). Contemporary Applied Linguistics. Continuum International Publising Group.
Corder, P.S. (1968). Advanced Study and the Experienced Teacher. In Perren, G.F. (ed. Teacher of English as a Second Language). Cambridge: Cambridge University Press.
Eapen, R. (1995). Methods of Teaching English, Block II The Context of Language Teaching, Department of Distance Education Central Institute of English and Foreign Languages: Hyderabad, 500 007, India.
Ewer, J.R. and G. Lattore. (1969). A Course in Basic Scientific English. London: Longman.
Gass, S \& Selinker, L. (2001). Second Language Acquisition: An Introductory Course. Mahwah, NJ: Erlbaum.
Gronlund, Norman E. (1993). How to Make Achievement Tests and assessments. Fifth Edition. USA: Allyn and Bacon.
Halliday, M.A.K. McIntosh and P. Steevens. (1965). The Linguistic Sciences and Language Teaching. London: Longmans.
Halliday, M.A.K., dan R. Hasan. (1985). Language Context and Text: Aspects of Languange in a Social-Semiotic Perspective. Victoria: Deakin University Press.
Harris, David P. (1969). Testing English as a Second Language. New York, Mc. Graw Hill.
Howatt, A. P. R. (1984). A History of English Language Teaching. Oxford: Oxford University Press.
Heaton, J.B. (1975). Writing English Language Tests: A Pratival Guide for Teachers of English as Second or Foreign Language, London: Longman Group Limited.
Hughes, Arthur. (1989). Testing for Language Teachers. New York: Cambridge University Press
Hutchinson, Tom and Waters, Alan. (1994). English for Spesific Purposes: A learning-centred Approach. Cambridge: Cambridge University Press.
Krashen, S. )1981). Principles and Practice in Second Language Acquisition. Hemel Hernstead: Prentice-Hall International.
Long, M.H. (2001). Focus on Form: A Design Feature in Language Teaching Methodology. In C.N: Candlin \& N. Mercer (Eds.) English Language Teaching in Its Social Context (pp. 180-190). London: Routledge.

Muslich, Mansur. (2008). KTSP (Kurikulum Tingkat Satuan Pendidikan): Dasar Pemahaman dan Pengembangan. Jakarta: PT Bumi Aksara.
Mel Silberman. (1999). Active learning: Strategies to Teach Any Subject. Allyn and Bacon Needham Heights, Massachusents.
Montague, Earl J. (1987). Fundamentals of Secondary Classroom Instruction. Columbus, Ohio: Merril Publishing Company.
Patten and Williams. (2003). Theories in Second Language Acquisition. New York: Routledge Paltridge, Brian. (2006). Discourse Analysis. London: Continuum
Richards, J. C. \& T. Rodgers. (1986). Approaches and Methods in Language Teaching. New York: Cambridge Press University.
Richards, Jack C. (2001).Curriculum Development in Language Teaching, New York: Cambridge University Press.
Rosenbaum, P. (ed. J.A. J.T. Fleming and H. M. Popp). (1966). `On the Role of Linguistics in the Teaching of English` in Language Learning. New York.
Taber, K.S. (2006). Beyond Constructivism: The Progressive Research Programme into Learning Science Studies in Science Education, 42: 125-184.
Titone, R. (1968). Teaching Foreign Languages. Georgetown University Press.
Tomlinson, B. (2001). Materials Development in Carter, R \& Nunan D. (eds). Cambridge: Cambridge University Press.
White, R. 1988. The ELT Curriculum. Oxford: Blackwell.

