# The Effect of Dynamic Assessment Strategy on Developing EFL Pupils´ Achievement

Kanaan K. Hasan
*Tikrit University, Iraq*, k.hasan@tu.edu.iq

Sahira Ali Hussein
*Tikrit University, Iraq*

## Recommended Citation

# The Effect of Dynamic Assessment Strategy on Developing EFL Pupils´ Achievement

* **Kanaan K. Hasan**, *Department of English, College of education for women, Tikrit University, Tikrit, Iraq, momsh89@tu.edu.iq*

**Sahira Ali Hussein**, *Department of English, College of education for women, Tikrit University, Tikrit, Iraq.*

## Abstract

The current research aims at finding out the effect of dynamic assessment strategy on EFL pupils' Achievement at the same time it aims to find out the effect of dynamic assessment strategy on developing EFL pupils' Achievement. It hypotheses that there is no statistically significant difference between the mean scores of the experimental group which is taught by dynamic assessment strategy and the mean scores of the control group which is taught by the conventional methods in the achievement post-tests. It also hypotheses that there is no statistically significant difference between the mean scores of the experimental group in the achievement-post tests. The work includes, randomly assessing two groups, one as an experimental and the other as a control group. Then applying a written pre-test to the two groups for the sake of equalization in pupils' achievement in English subject-matter and to equalize the groups concerning mother's education, father's education and pupils' achievement at previous schooling year 2020-2021. The experimental group is the group in which pupils are exposed to dynamic assessment strategy. Two groups are exposed to a post-test to know the effect of dynamic assessment strategy on developing EFL pupils' achievement in English language. After the test, the data and findings were presented and appropriately statistically analyzed. The results explain that there is a significant difference between the achievement of the experimental group who is taught according to dynamic assessment strategy and the control group who is taught by using the conventional method. Moreover dynamic assessment strategy guide the students in the experimental group to better achievement at the posttest.

## Statement of the Problem

There are a variety of procedures that fall under the umbrella term "dynamic assessment," but they all have one thing in common—the provision of teaching and feedback in response to an individual's progress throughout the assessment process. The assessor's (mediator's) approach to helping the learner is shaped by the unique characteristics of each participant in the assessment. In contrast to standard testing techniques, which often exclude any type of involvement. In contrast to conventional tests, dynamic methods tend to be equally interested in testing the individual's use of cognitive and metacognitive strategies, their response to examiner aid and support, as well as their ability to perform at the highest level (Khaghaninejad: 2015, p. 46). The classroom assessment process can have encouraging results when it addresses students learning as well as the social and emotional needs of students inside the classroom. Conventional assessment does not identify areas of strength and potential strength. It assesses only skills and knowledge the individual has gained from his or her prior experiences. It does not help learners to realize their potentials. More ever, static assessment does not diagnose the evaluations and it does not analyze learners' responsiveness in order to make predictions about their learning abilities. In order to have a complete picture of individuals' abilities, it is necessary for teachers to collaborate with their students during the completion of assessment tasks, extending independent performance to level they could not reach alone, 2 this can be done through dynamic assessment. Some DA researchers capture this new relationship by replacing terms examiner and examinee with mediator and learner. The mediator offers some support to the learner, ranging from prompts and leading questions to hints and explanations. In this way, DA researchers can understand not only individual s' present abilities but also their potential future abilities and importantly can help them realize that future. The researcher has found that the problem of EFL students that the traditional assessment strategies don't offer information that are useful for planning for future, due to the luck of feedback from the examiner to the test – taker. The feedback learners receive is often just the score of the test. As we can see the focus in traditional assessment on product of assessment rather than learning process. The researcher finds that there is a need to make classroom assessment based on the essential characteristics of dynamic assessment such as interaction, collaboration, open - ended questions and generation information about the responsiveness of the learners to intervention. Assessment has an impact on learner s' emotions and their motivation. Analyzing whether ones' assessment framework is traditional or not is necessary to understanding how learners might feel in the process of learning.

**Aims of the Study:**

This study aims at:

1- Finding out the effect of dynamic assessment strategy on EFL pupils' Achievement.
2- Finding out the effect of dynamic assessment strategy on developing EFL pupils' Achievement.

**Hypotheses of the study**

This study hypothesizes that:

1- There is no statistically significant difference between the mean scores of the experimental group which is taught by dynamic assessment strategy and the mean scores of the control group which is taught by the conventional method in the achievement post-tests.

2- There is no statistically significant difference between the mean scores of the experimental group in the achievement-post tests.

**Limits of the study**:

1- Al-Alam "Preparatory School for Boys in Tikrit, Salah-aldeen Governorate, is the focus of the research".
2- The use of dynamic assessment strategy in teaching unite one, two and three of "English for Iraq" text book.
3- The academic year 2021-2022
4- The models of the study are Guthke´s Lerntest interventionist (Model) of Dynamic Assessment Strategy and Feuerstein´s interactionist (model) of Dynamic Assessment Strategy.

**Value of the Study**:

This study is expected to have values for:

1. EFL teachers who want to implement dynamic assessment strategy in teaching Preparatory stage effectively in the classroom.

2. Preparatory students since it helps them to develop their learning and increase their long-term memory. It promotes the involvement of students in the learning process.

3. College instructors who get benefit of this study.

**Procedures of the study**:

The procedures followed in the current study include:

1- Presenting a theoretical background of the dynamic assessment Strategy.
2- Randomly assessing two groups, one as an experimental and the other as a control group.
3- Applying a written pre-test to the two groups for the sake of equalization in pupils' achievement   in English subject-matter and to equalize the groups concerning mother's education, father's education and pupils' achievement at previous schooling year 2020-2021.
4- The experimental group is the group in which pupils are exposed to dynamic assessment strategy.
5- Two groups are exposed to a post-test to know the effect of dynamic assessment strategy on developing EFL pupils' achievement in English language.
6- After the test, the data and findings were presented and appropriately statistically analyzed.
7- Including conclusions, proposals, and recommendations

**Definition of basic terms**:

**Effect**

Effect is the change brought about in someone or by another (Collins, 1987:1). According to Nair and Bindu (2016:43), an effect is the change that arises as a result of a given cause, such as an event, scenario, or situation.

**Dynamic assessment**

Sternberg and Grigorenko (2002, p. 30) state that "dynamic assessment" is the process of diagnosing evaluations in which a mediator presents assistance to learners and analyzed their responsiveness in order to make predication about their learning ability.

The term "dynamic assessment" refers to a range of methods and materials to assess the potentiality for learning, rather than a static level of achievement assessed by traditional tests, its aims to reveal an individual s maximum performance, by teaching or mediating within the assessment and evaluating the enhanced performance that results (Khaghaninejad 2015, p. 15).

Tzuriel (2001, p. 6) mentions that DA refers to an assessment of thinking, perception, learning and problem solving by an active teaching process aimed at modifying cognitive functioning.

**Assessment**

According to Mousavi (2009, p. 36) " assessment " is appraising or evaluating the level or magnitude of some attribute of a person. Assessment is " an ongoing process that covers a wide range of methodological techniques".

Carter and Nunan (2001, p. 218) state that assessment is the procedure of collecting data on individual learner ´s proficiency or achievement. Brown (2004, p. 4) defines assessment as a continuing process that encompasses a much wider domain.

## The Zone of the Proximal Development

Vygotsky (1978, p. 86) states that the zone of proximal development is the distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers. According to Lantolf and Appel (1994), Vygotsky's implication was that ZPD is the area where genuine learning occurs and the functions that are generated during the maturation process are formed.

## The concept of dynamic assessment

Assessing students´ learning is considered very important role in the area of education because it is very useful to boost the achievement of students inside the classroom. Through evaluation, the process of teaching and learning can be analyzed, addressed, and possible solutions are found. Identifying students´ problem in learning foreign language and working on them, might be very difficult task. Vygotsky proposes that humans are endowed with a biological capability to develop lower - level or natural psychological and cognitive processes (Poehner 2008, p. 14).

In Vygotsky´s theory the term internalization means the process through which the child turns the external social use of language into internal mental use. Learning occurs when child interacts with interlocutor within his ZPD (zone of proximal development). DA is based on the Vygotskian ̓s notion of zone of proximal development (ZPD) which captures the uniquely human potential to exceed our present capabilities by working in collaboration with others whose dialogic interaction mediates us to higher level of functioning, Therefore DA offers a framework for co-constructing a ZPD with learners in order to simultaneously discover the full range of their abilities and promote development. Dynamic Assessment, with its roots in Vygotsky ̓s theory of mind, emphasizes on integration of assessment and instruction consequently DA reconceptualizes classroom interactions by arguing that teaching and assessment should not be separated but must be integrated as a single activity that helps to understand learners´ abilities by actively supporting their ongoing development (Cook 2008, pp. 228-9).

Children's cognitive abilities may be assessed via dynamic assessment. As a foundation, it takes a look at how children's cognitive development works and how adults can help. Individual maximal performance may be revealed by teaching or intervening in the evaluation and performance that follows. Student accomplishment may be assessed in two ways: at a level and at a rate using dynamic assessment, which assesses the impact of short-term interventions on student performance. Rather to assessing a fixed level of success, it provides a broad variety of methodologies and resources to measure the potential for learning. Student failure need immediate remedial input and involvement from DA (Khaghaninejad 2015, p. 15).

The term dynamic assessment consists of a wide range of methods and materials to assess the potentially for learning, rather than a static level of achievement assessed by conventional test. Students should understand the learning objectives, goals and understand the criteria they are responsible to know and understand how they will be evaluated. Teachers should observe a student throughout the semester. The teacher needs a continuous flow of accurate information on their students learning. This will help the teacher to check in how well their students are learning and for providing information for improvement the evaluation. Classroom assessment also requires the active participation of students and the cooperation of teachers when they evaluate the students that there is a clear understanding about what is expected. The assessment gives a chance to correct misconceptions and discusses any early issues when teacher accurately evaluates the material covered with student. Dynamic assessment assists the teachers in accomplishing their objectives, and what obstacles must be overcome or reduced to achieve the desired results. DA gives the teachers an opportunity to observe their students closely to see how they respond to test - taking. One of the most important points about the weakness in the conventional classroom assessment is that the kind of assessment does not respond to the particular needs and characteristics of the teachers, students and the disciplines to which they are applied. Sometimes, there are gaps in knowledge or understanding, but these problems are discovered too late to remedy. DA is a way to improve students through determining the weaknesses with any aspects of education area. This will happen by analyzing the procedure of teaching and learning through the interaction between teacher with his students by evaluation and then addressing these issues to give them the best solutions (Ibid: 14).

Dynamic assessment, with its roots in Vygotsky's theory of mind, is considered the integration of assessment and instruction much further by interaction which leads to promote learners' abilities. DA overcomes the assessment-instruction dualism by unifying them according to the principle that mediated interaction is necessary to understand the range of an individual's

functioning. Vygotsky's view that cognitive abilities arise from interactions in the world and that these are always mediated. According to his view, abilities do not simply mature on their own but produced by engaging in activities with others and with cultural artifacts (Poehner 2008, p. 24).

## Models of Dynamic Assessment

The dynamic assessment strategy is rooted by two theories: Vygotsky's (1978) sociocultural theory, especially the concept of the zone of proximal development (ZPD), and Feuerstein et al.'s (1979) mediated learning experience (MLE) theory. As a response to needs to include sociocultural factors in understanding of cognitive development and learning potential these theories begin to spread, these two theories serve as the basis of the DA strategy (Tzuriel 2012, p. 4 5 4)

DA strategy based on two broad schools of thought, interventionist and interactionist schools. Interventionist focuses on the mediation that offered to the learners by a mediator. While interactionists see language as a cultural activity learned in interaction with other. Interactionists think environmental factors are more dominant in language. Social interaction plays a significant role in learning process, learners can construct and solve problem through socially mediated interaction.

## Interventionist of DA Strategy

Al-Hroub and Whitebread (2019, p. 129) refer to dynamic assessment (DA), as an interactive approach to conducting assessments within the domains of exceptional and nonexceptional learners that focuses on the ability of the learner to respond to intervention. The ZPD refers to what a learner is able to accomplish with the help of a more experienced collaborator. This contrasts with the "zone of actual development (ZAD)," which is what the learner is able to accomplish independently. This makes it possible to conceptualize assessment in terms of the type of information provided by the procedural models. That is, most procedures provide information about the learner's ZAD, while dynamic assessment provides information about the learner's ZPD. To really understand the learner and to be able to plan for instruction, it is necessary to have both sources of information. Promotion of higher mental functions requires that the more experienced collaborator provide leadership within this interaction. This leadership occurs to a large extent through the tools of language, which serves to mediate the transition from external knowledge to internalized mental functioning.

What a learner can accomplish with the aid of a more seasoned collaborator is referred to as the ZPD. In contrast, the learner refers to the "zone of actual development (ZAD) independently accomplishable. Due to this, it is possible to

think of evaluation in terms of the information type .The procedural models deliver. Generally speaking, then convey details regarding the student's ZAD while being dynamic. The learner's ZPD is revealed through assessment to actually to be able to organize instruction and to comprehend the learner, is essential to have both information sources. Marketing of higher mental capacities call for the more seasoned within this engagement, the collaborator takes the lead. This to a significant measure, leadership happens through the methods of the term interventionist DA, is rooted in Vygotsky's quantitative interpretation of the ZPD as a 'difference score'. It is currently implemented in either of two formats: a pretest–treatment– post-test experimental approach; providing item-by-item assistance selected from a prefabricated menu of hints during the administration of a test (Poehner and Lantolf 2005, p. 7).

The strategy entails administering standardized pre- and posttests, as well as a semi-scripted intervention in the middle. During the intervention phase, an attempt is made to impose some uniformity while preserving enough flexibility to build and maintain an instructive conversation that allows the child to feel at ease and confident. The scale generates scores that show how well the child has learned each task as well as how sensitive they are to intervention (Khaghaninejad 2015, p. 65).

## Guthke´s Lerntest Approach (Model) of Dynamic Assessment Strategy

The Guthke's Lerntest approach "is based on Vygotsky's ideas and represents a myriad of testing procedures" (Tzuriel, 2001, p. 18).

Guthke argues that individuals have not just one ZPD for general intelligence or learning ability, but multiple domain-specific ZPDs. He tries to move DA procedures beyond the domain of intelligence testing to include content areas, such as language aptitude (Poehner 2008, p. 47). Guthke indicates that conventional intelligence tests unable to predict the intellectual development of children if the children continue to live in unfavorable social situations or will not receive some kind of intervention to change their cognitive functioning after the assessment process. (Tzuriel 2001, p. 20).

According to Vygotsky, individuals' cognitive development can be understood only by considering the sociocultural aspects from which it derives. The child's cognitive development one should consider both the actual development level and the potential level. The actual level can be measured by monitoring the child's independent problem solving without any guidance or help, much like the static standardized testing approach, whereas the potential level can

be observed after the child has been mediated on how to perform, as is done in DA (Tzuriel 2001, p. 13).

Vygotsky (1978, p. 90) indicates that in order to get benefit from learning process we should create the zone of proximal development; that is, learning stimulates a variety of internal developmental processes and that are done by child´s interaction with the people and environment through cooperating with peers or mediators. When these processes are internalized, they become part of the individual's independent developmental achievement.

## Interactionist of DA Strategy

DA strategy focuses on learning processes. Deficient cognitive functions can be used as keys to understand the learning difficulties, the degree and type of modifiability of deficient cognitive functions during assessment provides strong indications for future change. Mediation is very important for cognitive as well as changes that happen through assessment, it offers indications and hints for cognitive modifiability. Nonintellective factors can determine the individual performance, it can be modifiable and integrated within the cognitive factors. The insertion of nonintellective and behavioral factors within DA give the assessment an overview for the learner´s performance and provide the assessment with a holistic view of the individual (Tzuriel 1992a). (Tabatabaei and Bakhtiarvand (2014) indicate that interactionist model aims to unify instruction and assessment together, it also assesses and promotes the learner's cognitive development following Vygotsky's concept of the ZDP. DA strategy emphasizes learning over assessment. Leading questions, clues, or prompts are not planned ahead of time and occur naturally through mediated discussion (Lantolf & Pohner, 2004).

## Feuerstein´s approach (model) of Dynamic Assessment Strategy

Feuerstein ´s approach of DA based on the concept mediated learning experience MLE.  In this perspective, Feuerstein explains the relationship between mediated and direct learning experiences and the fundamental importance of this relation. The more mediation there is, the greater the benefit of learning.  Benefit that child obtains depends on the how much the exposure to learning. Mediator in a MLE facilitates the child ´s interaction at the same time, diagnoses the child´s potential for cognitive change (Feuerstein et al., 1988, p. 58).   The MLE, according to Feuerstein, is a process in which external stimuli do not directly affect the organism but are filtered via another person, usually an adult mediator, who chooses, frames, changes, and imposes order on the stimuli to guarantee that 'the relationships between various stimuli will be experienced in a specific manner'(Feuerstein et al., 1988: 56).  Dynamic assessment emphasizes on tasks that measure "fluid" abilities such as, nonverbal figural, pictorial, or manipulative tasks rather than "crystallized" abilities (usually verbal tasks, such

as vocabulary). However, fluid tasks are a standard feature for assessment and are necessary to avoid misdiagnosing limited learning opportunities as cognitive deficits (Feuerstein et al. (1987).

### Mediation and Mediated Learning Experience MLE

Feuerstein's MLE theory evolved within a historical, social, and cultural perspective. The MLE theory is based on assumption, that human beings have a unique capacity to modify their cognitive functioning and cognitive structures and adapt to changing demands in the environment. And, cognitive modifiability is possible irrespective of the barriers of age, etiology, and severity of condition. MLE processes explain cognitive modifiability better than do direct unmediated experiences. This assumption shifts the responsibility for an individual's modifiability from the developing child or a person in treatment to the mediating adult. (Tzuriel 2001, p. 24). The way stimuli experienced in the environment are modified by a mediating agent, usually a parent, teacher, sibling, or other well-intentioned person in the learner's life, is referred to as a Mediated Learning Experience (MLE) (Feuerstein, Falik, Rand & Feuerstein, 2006).

A mediated learning experience technique enables feedback that is tailored to the children's replies by maintaining uniformity of processes among participants (Anderson, 2001). According to Feuerstein et al. (1988), who were quoted by Poehner and Lantolf (2005, p. 9), there are three main MLE components: transcendence, reciprocity, and intentionality. In a nutshell, intentionality refers to an adult's conscious efforts to actively represent the environment, a particular item within it, or an activity for a child. Feuerstein claims that this sets the MLE apart from the haphazard, accidental nature of conventional training, or instruction that disregards the ZPD. Since the activities of both the learner and the mediator are inextricably linked, reciprocity explains the relationship between the two parties. The learner is not an inactive recipient of instruction during an MLE session. The learner participates actively in the co-construction of knowledge during an MLE session rather than passively receiving it. Transcendence pertains to the MLE's objective of fostering the cognitive growth necessary for the kid to look beyond the "here-and-now" requirements of a particular activity.

The mediator engages the child's interest, alertness, and challenge in order to relate to motivational aspects as well. From a cognitive standpoint, the mediator seeks to develop or enhance the child's cognitive abilities. The MLE processes are gradually internalized by the child and become an integrated mechanism of change within the child. Adequate MLE interactions facilitate the development of various cognitive functions, learning set, mental operations, strategies, reflective thinking, and need systems. Acquiring MLE procedures that

are internalized allow developing children to apply them later independently, to gain knowledge from experiences, to use self-meditation in new situations their own cognitive system and to adapt to new learning settings Examiners can facilitate children's performance on tests by using the tactics provided there learning procedures, recognize deficient cognitive functions, and give specified recommendations for development of cognitive structures by using MLE (Tzuriel 2000, p. 392).

### The characteristics of mediated learning experience MLE

The main criteria of MLE that are suggested by Feuerstein, Rand, and Rynders (1988).

#### 1- Intentionality and Reciprocity

Intentionality is very important in LPAD, mediator/examiner should work by this way to get interaction in meaningful way. With the intentionality and reciprocity, the examiner will ensure that interaction will be endowed with the goals to form and guide the experience. By the guidance of mediator, the intentionality affects the LPAD examiner's face, eyes, and voice, making them noticeable and creating an orienting response and a state of attentiveness in the examinee. Intentionality and reciprocity ensure the existence of a bond between the examinee and the mediator.

#### 2- Transcendence

Transcendence plays a significance role to identify the goals of mediated interaction. The main goal is the remediation of deficiencies within the examinee's cognitive structure and the tasks of the LP AD are merely the tools through which such goals may be reached. The materials of the LPAD therefore do not embody the goals of the examiner-examinee interaction, but are used by the examiner to assess and to remediate the prerequisites of higher levels of functioning.

The Organization of Dots and the principle of transcendence. With appropriate mediation the task of connecting the dots to form the model figures can be utilized. There are many goals of transcendence, control the haste of the students, regulate behavior, create ways of thinking such as the use of relevant information, and enhance the comparative behavior. Transcendence can be demonstrated by the tool Organization of Dots. A main goal that is targeted by the LP AD examiner is that, using this tool is the resetting of the three phases of the mental act (regarding regulation of behavior). The normal mental activity begins to solve problem immediately after perception of the problem, and need to search for clues and hints for demonstration that produces an investment in the perceptual process. This leads to information that is transformed and elaborated,

depending upon goals, leading to the communication, of the results of the mental activity. As a result of mediational deprivation (Lack of mediation) the individual faces tasks without input, moves directly from input to output, or fails to communicate even adequately elaborated responses. The regulation of behavior-the best goal that can be reached with this instrument, which involves the joining of the dots within each frame.

## 3- Meaning

With intentionality and transcendence, the mediation of meaning is necessary for mediated learning to occur. In the LP AD the examiner notices the changes that are taking place in the examinee's performance and attributes meaning to these. Meaning cannot be grasped by the senses alone and its mediation is very important for the enhancement of the energetic and motivational factor of the examinee's performance and for the development of perception.

## 4- Regulation of Behavior

The mediator controls and analyzes the tasks components, focuses on task features, and chooses the suitable metacognitive strategies. Regulation of behavior plays an important role in helping the child to register information in accurate way. A child's ability to receive information accurately is greatly influenced by their ability to control their behavior.

## 5- Feelings of Competence

The mediator's role is to set up the child's surroundings in such a way that it promotes his or her ability to operate freely and productively. It's possible to achieve this by grading the complexity of the tasks, giving them opportunity to succeed, explaining what it means to be successful, and praising them for their efforts to master and deal with the issue. The mediator offers feedback on both successful and unsuccessful solutions, including efforts at mastery that were just half successful.

## The Role of the Teacher in DA

Hamm and Adams (2009, p .57) indicate that teachers can mentor and coach their students as they engage in the kinds of inquiry-based activities that will help them develop a comprehension of the usual scientific path toward a deeper comprehension of how the universe functions. As they plan and coordinate some of the class activities together, teachers can gradually give the students a sense of ownership. By involving the students in the assessment and delivery of the lesson, the teacher shares some of the leadership. Each student typically gains greater knowledge when they educate one another. Effective teachers occasionally go above and beyond by including students in debates about the rules, scheduling,

and teaching methods in the classroom. As a result, teacher has the potential to go beyond science and give students insightful knowledge about themselves and the nature of teamwork.

The mediator (teacher) chooses stimuli that are most relevant to his or her aims, frames, filters, and schedules them, and then arranges their presence or disappearance to structure the learner's exposure according to clearly defined and unambiguous goals. The teacher assists the child to be a more skilled and independent learner, a mediator does not tell the child what strategy should be used. The teacher works on child's learning zone and that is based on Vygotsky's notion of the 'Zone of Proximal Development'. (Vergara, et al., 2019, p. 86)

Tabatabaei and Bakhtiarvand (2014, p. 9) point out that in DA, the teacher's duty is to act as an examiner with a higher level of knowledge who interacts with the students. In DA, an examiner not only provides performance-based feedback, but also provides teaching to students who fail to adjust or improve their performance. "Dynamic assessment assumes that all learners are capable of some level of learning" (change and modifiability). This is in contrast to standardized psychometric testing's basic assumption that most people's learning abilities are essentially stable." Students are also active participants in their own process.

Searching for deficient functions and inadequate mental operations, the AD examiner functions as a trained mediator. In remediating cognitive deficiencies and in producing positive motivational and attitudinal support for higher levels of functioning, the mediator seeks to prevent failure and provides the child with help needed to overcome inadequacies in functioning (Jensen, M. R., & Feuerstein, R.1987, p. 385).

**Methodology and procedures**

**The Experimental Design**

There are many definitions and opinions of different scholars describe the experimental design in the research such as Van (1962:230) who says when the researcher wants to test the hypothesis of the study must use experimental design to measure the effect of independent variables on depends variables in the study. Cook (1967:106) describes the experimental design as important means to test the aims, procedures and hypothesis of the study by the researcher. Also, Goodman (1973:74) defines the experimental design as a plan to discover the effect of experimental treatments on experimental groups that are selected for testing the study. The researcher of this study defines experimental design as an approach that needs a good understanding of the appropriate system to test the hypothesis and discover the results of the study. Concerning the current study, the use of aims and hypotheses demands the NonRandomized experiment group pretest-posttest design. Consequently, the two 53 groups of the fifth scientific

preparatory school pupils are the sample of the study. The experimental design of the study is shown in table (1).

Table (1)

The Experimental Design

| Group | Dependent variable | Independent variable (Treatment) | The Test | The Test |
|---|---|---|---|---|
| Experimental | | | Pre-Test | Post-Test |
| Control | | Traditional Strategy | Pre-Test | Post-Test |

## Construction of the Study Instruments

In current study, a post test is the instrument which has been constructed and applied to achieve the aims of the study.

## Validity

Davies (1990:21) refers the validity is correlated with the fact of the test, its ties to what it is supposed to test. Validity is the precision, significance and relevance of the relevant assumptions derived by test scores. Messick (1989 as cited in Messick, 1998:3) explains that validity as "an integrated overall evaluative judgment of the degree to which empirical evidence and theoretical rationales support the adequacy and appropriateness of interpretations and actions on the basis of test scores or other modes of assessment". Hughes (2003:26-35) shows that a test is to be valid if it measures really what it is supported to measure.

## Face Validity

Face validity is "the way the test looks to the examinees, test administrator, educators and the like" (Harris, 1969:7). Nevo (1985:288-290) suggests that face validity be understood through the scope of validity, describing face validity as the thoughts, behaviors, and views of testers, raters, or examinees against a test. So, test questions sent to a jury of specialists in the field of TEFL and linguistics in terms of the value of test validity and in order to ensure the face validity of the test. They have been asked to assess whether or not the test elements are appropriate. The jury members decided that the test questions are acceptable for learners with some changes and notifications that have been taken into account.

**Content Validity**

Gipps (1995:58) explains that content validity involves the coverage of suitable and essential content, and is likely to be based on capable judgments. Pennington (2003:37) claims that Content validity refers to the degree to which an assessment instrument is relevant to, and representative of, the targeted construct it is designed to measure represents all sides of a given concept. Content validity looks at how the contents of the test are carried out and the researchers are concerned with the evaluation of whether all areas covered adequately by the assessment to evaluate the validity of the material. Also, it deals with how the evaluation (Fraenkel & Wallen, 2003:275). The content interpretation of the research objects is based on Bloom's Taxonomy of cognitive fields. The cognitive domain begins with the lower level of cognition that is comprehension and concludes with the higher level of cognition that is evaluation as shown in table (2).

Table (2)

Numbers of Test Items for Each Level of Bloom's Taxonomy

| No. | Knowledge | Comprehension | Application | Analyzing | Synthesis | Evaluation | Total |
|-----|-----------|---------------|-------------|-----------|-----------|------------|-------|
| Q1 | / | 1 | 1 | / | / | / | 2 |
| Q2 | 1 | 1 | 1 | 1 | / | / | 4 |
| Q3\A | / | 1 | 1 | / | / | / | 2 |
| Q3\B | / | 1 | 1 | / | / | / | 2 |

| Q4\A | / | 1 | 1 | / | / | / | 2 |
|------|---|---|---|---|---|---|---|
| Q4\B | / | 1 | 1 | / | / | / | 2 |
| Q5\ | 1 | 1 | 1 | 1 | 1 | / | 5 |
| Q\6 | 1 | 1 | 1 | 1 | 1 | 1 | 6 |

## Pilot Study

In preparation of this test for small representative groups of examinees, Richards and Schmidt (2010: 219) explain the pilot study is to assess suitability and function ability of the tools sample, and clarify directions, define the time required to answer the question, determine complexity and discriminatory power, measure the reliability of the test and making the final administration of the test items The pilot test is very important and preferred for the research because it aims to discover discrimination power, difficulty level and the reliability of the test, so the researcher selects (20) pupils randomly from (A) and (B) sections (ten) pupils from each section from Al-Alam preparatory school for boys. The pilot test is applying to the (20) pupils in a normal situation and classroom condition. After applying the pilot test, it is found out that the time needed is 45 minutes to answer the test items, and there is no ambiguity in the instructions of the given test.

## Reliability of the Posttest

Reliability is an important character of a good test. A test is said to be reliable if its degree of accuracy stays stable and consistent each time is conducted with the same condition for the same sample of students (Verma and Beard, 1981:860). One of the necessary characteristics of a good test is reliability. Alderson (1995:294) states that "reliability is the extent to which test scores are consistent". Reliability is explained by Ravitch (2007:70) "in testing, a measure of consistency. For example, if a person took different forms of the same test on two different days, scores on both tests should be similar. Alpha- Cronbach formula is used to measure the reliability of the post-test. The coefficient is found to be (0.87), which consider acceptable.

## Analysis of the Test Items

The test items must be examined to distinguish two significant objects are level of difficulty and discrimination power. Marshall and Rossman (1999:150) say that item analysis is a process to understand and collect important information

about the relationship among items of the test and make the decision depend on analyzing items of the test.

## Difficulty Level

The difficulty level is specified as the ratio of the students who replied correctly to each item (Rosas, 2000:3). Item difficulty refers to the extent to which an item appears to be complicated or facilitated for a given number of tests. It just reflects the percentage of learners who respond correctly to the object. The most suitable test item will have item difficulty varying between 0.15 and 0.85 (Brown & Abeywickrama 2010, p. 70-1). According to the table (2), DL of the present test items varies from (0.30) to (0.70).

## Discrimination Power

Discrimination power means " calculating the degree to which a particular item's results correspond with the results of the entire test' (Alderson, 1995:80). This means that an object is deemed to have weak power of discrimination if it is correctly scored by high-skilled students as well as low-skilled students. Item discrimination refers to the degree to which an object makes a difference between good and poor testers. An object has good power of discrimination if it collects the right answers from the good students and the wrong answers from the bad students. It is worth noting that the high power of discrimination will be close to 1.0, and no power of discrimination will be nil at all (Brown & Abeywickrama , 2010 p. 71). The test item DP was found to have a range of (0.25) - (0.50). The test items for DP and DL are shown in the following table:

Table (3)

Difficulty level and Discrimination power

| Question | Item | Higher | Lower | Difficulty | Discrimination |
|----------|------|--------|-------|------------|----------------|
| Q1/ | 1 | 20 | 10 | 0.45 | 0.25 |
| | 2 | 20 | 10 | 0.70 | 0.25 |
| | 3 | 20 | 8 | 0.65 | 0.30 |
| | 4 | 20 | 8 | 0.35 | 0.30 |
| | 5 | 16 | 6 | 0.30 | 0.25 |
| Q2/ | 1 | 20 | 12 | 0.50 | 0.27 |
| | 2 | 20 | 11 | 0.65 | 0.30 |
| | 3 | 20 | 10 | 0.65 | 0.33 |

| | | | | | |
|---|---|---|---|---|---|
| Q 6/ | 4 | 20 | 8 | 0.40 | 0.40 |
| | 5 | 16 | 7 | 0.30 | 0.30 |
| Q3\ A | 1 | 20 | 12 | 0.35 | 0.27 |
| | 2 | 20 | 11 | 0.45 | 0.30 |
| | 3 | 20 | 10 | 0.40 | 0.33 |
| | 4 | 20 | 9 | 0.30 | 0.37 |
| | 5 | 18 | 8 | 0.30 | 0.33 |
| Q3/ B | 1 | 20 | 12 | 0.55 | 0.40 |
| | 2 | 18 | 11 | 0.40 | 0.35 |
| | 3 | 18 | 10 | 0.55 | 0.40 |
| | 4 | 16 | 9 | 0.35 | 0.35 |
| | 5 | 18 | 8 | 0.55 | 0.50 |
| Q 4\ A | 1 | 20 | 11 | 0.60 | 0.45 |
| | 2 | 20 | 11 | 0.65 | 0.45 |
| | 3 | 20 | 10 | 0.70 | 0.50 |
| | 4 | 16 | 9 | 0.55 | 0.35 |
| | 5 | 18 | 8 | 0.40 | 0.50 |
| Q 4/ B | 1 | 20 | 11 | 0.50 | 0.45 |
| | 2 | 18 | 11 | 0.30 | 0.35 |
| | 3 | 18 | 10 | 0.50 | 0.40 |
| | 4 | 16 | 9 | 0.60 | 0.35 |
| | 5 | 18 | 8 | 0.65 | 0.50 |
| Q 5\ | 1 | 20 | 12 | 0.50 | 0.40 |
| | 2 | 18 | 12 | 0.55 | 0.30 |
| | 3 | 18 | 10 | 0.40 | 0.40 |
| | 4 | 16 | 11 | 0.55 | 0.25 |
| | 5 | 18 | 8 | 0.30 | 0.50 |
| Q 6/ | 1 | 39 | 20 | 0.40 | 0.48 |

**Analysis of Data and Discussion of Results**

The student's responses to the test items have been analyzed statistically as follow:

**Results related to the first hypothesis Comparison between the Mean Scores of the Experimental Group and that of Control Group in the Posttest.**

All mean scores are acquired and compared in order to determine whether there is any statistically significant difference between the posttest mean scores of the experimental group and the control group. According to statistics, the control group's mean score is (62.51) while the experimental group's mean score is (73.16). The calculated t-value is found to be (4.174) using the t-test formula for two independents, while the tabulated t-value is found to be (2.00) at the degree of freedom (57) and level of significance (0.05). This indicates that there is a significant difference between the two groups' performance, favoring the experimental group.

Therefore, as indicated in table (4), the first hypothesis, which claims that there is no significant difference between the mean scores of the experimental group and those of the control group in the posttest, is disproved.

Table (4)

Means, Standard Deviation, and t-Values of the Two Groups

In the Achievement Test

| Groups | No. of students | Mean | SD. | T-Value | | DF | Level of Significance |
|---|---|---|---|---|---|---|---|
| EG. | 30 | 73.16 | 9.67 | Calculated | Tabulated | 57 | 0.05 |
| CG. | 29 | 62.51 | 9.92 | 4.174 | 2.00 | | |

**Results related to the second hypothesis Comparison between the mean scores of the experimental group achievement in post-tests**.

To ascertain whether there are any statistically significant variations in the post-test mean scores for the experimental group, a one-way ANOVA is also

performed. The researcher employed a one-way analysis of variance, as can be seen in the table below: Table (5)

Table (5)

One-Way Analysis of Variance (ANOVA) Between the Three Testes

| Variables | Sum of Squares | DF | Mean Square | Computed F- Value | Tabulated F-value | Sig. |
|---|---|---|---|---|---|---|
| Between Groups | 1413.956 | 2 | 706.978 | 7.070 | 3.11 | 0.05 |
| Within Groups | 8700.100 | 87 | 100.001 | | | |
| Total | 10114.056 | 89 | | | | |

The table (6) shows that the computed F-value value (7.070) is less than the tabulated F-value (3.11) at the (0.05) level of significance and DF = 2, 87. This indicates that there are significant differences between students' mean scores in the post-test.

Table (6)

Comparisons Of Means (Scheffea,b)

| Groups | N | Subset for alpha = 0.05 | |
|---|---|---|---|
| | | 1 | 2 |
| Experimental -1 | 30 | 73.1667 | |
| Experimental -2 | 30 | 76.0333 | |
| Experimental -3 | 30 | | 82.6333 |
| Sig. | | .542 | 1.000 |
| Means for groups in homogeneous subsets are displayed. | | | |
| a. Uses Harmonic Mean Sample Size = 30.000. | | | |

According to the table above, the comparisons of means showed that the mean scores of the experimental groups post-tests were E.G-1 (73.1667), E.G-1 (76.0333), and E.G-3 (82.6333), with harmonic mean sample size = 30.000.

These results indicate that students' achievement in the third test has the highest mean score. The hypothesis, which states there is no statistically significant difference between the mean scores of the experimental group and the posttests, is rejected.

**The Correlation of the Three Testes:**

The Pearson correlation coefficient is also employed to determine any possible relationships between the three testes in order to fulfill the fourth goal of this study. Table presents the outcomes (7)

Table (7)

Pearson Correlation Coefficient factors between the three achievements in the post-test

Correlations

| Experimental Groups | | Experimental Test-1 | Experimental Test-2 | Experimental Test-3 |
|---|---|---|---|---|
| Experimental test-1 | Pearson Correlation | 1 | -.086- | -.057- |
| | Sig. (1-tailed) | | .325 | .383 |
| | N | 30 | 30 | 30 |
| Experimental test-2 | Pearson Correlation | -.086- | 1 | -.090- |
| | Sig. (1-tailed) | .325 | | .318 |
| | N | 30 | 30 | 30 |
| Experimental test-3 | Pearson Correlation | -.057- | -.090- | 1 |
| | Sig. (1-tailed) | .383 | .318 | |
| | N | 30 | 30 | 30 |

The results show that Pearson correlation coefficient factors between ETest-1 and E-Test-2 (-0.086) and E-Test-3 (-0.057). While the correlation between E-Test 2 and E-Test-1 is (-0.086), the correlation between E-Test-3 and E-Test-1 is (-0.057), and the correlation between E-Test-2 and E-Test-3 is (- 0.090).These results mean that there is an average negative relationship between E-Test-1, E-Test-2, and E-Test-3.

## Discussion of the Results

The goal of the current study is to determine how dynamic assessment techniques affect the academic performance of EFL prep students. Additionally, it makes an effort to demonstrate whether students' achievement differs significantly between the experimental group and the control group. The results are listed below: -

- 1. Students in the experimental group who have experienced dynamic assessment do higher school achievement than those in the control group who have received instruction using the conventional method.

2. Dynamic assessment is used to provide a variety of educational materials that are based on sharing and exchanging ideas in both the classroom and in real-world situations.

3. By encouraging independent learning and encouraging students' minds to speak creatively, dynamic assessment has improved students' academic performance.

4. Students begin to enjoy themselves as a result of generating and practicing situations.

5. The student is convinced that raising learning, solving issues, and making discoveries are all results of deep, regular, and controlled thought. He will perform and succeed better in class if the pupils see him to be interested in the material. This is due to the fact that the student believes he has a significant role in the educational process.

6. The achievement of students has increased as a result of the usage of nonlinguistic forms like graphics, statistics, and figures.

7. Using open-ended questions will make it easier for students to comprehend, participate in text analysis, and develop a comprehensive intellectual comprehension of it.

9. Students are kept engaged, self-assured, monitoring and self-evaluating their learning through the use of dynamic assessment in the teaching-learning process.

In this situation, the student is assuming the position of the educator or teacher during the learning process.

10. Working in groups will improve students' ability to cooperate and work together. Additionally, students' ability to compare their work to that of their classmates will encourage them to produce more and encourage communication and fact-checking.

11. The study reveals that the students improve their achievement of the four skills after utilizing dynamic assessment.

Through several assessments in the posttest, the researchers in this study hope to determine how dynamic assessment affects the performance of EFL preparation students. The statistical findings show that dynamic assessment has had a significant impact on students' performance. This is because there are clear variations between the pre- and post-test results. This may be explained by the notion that dynamic assessment concentrates on the fundamental elements (Intentionality, Meaning, Transcendence, Planning, and Transfer). The researcher also discovered a statistically significant difference between the post-test mean scores of the experimental group, which received instruction using dynamic assessment, and the control group, which received instruction using the conventional technique.

Dynamic assessment provides students with various tasks and devices that enable them to learn about things they really like. For example, Provide a model or example of the concept, idea, or linguistic structure the student needs to learn...etc.

Additionally, the results demonstrate that students' posttest mean scores for the experimental group and the control group, according to statistics, are respectively 73.16% and 73.1, respectively (62.51). While the second hypothesis states that the computed F-value value (7.070) is less than the tabulated F-value and that a one-way ANOVA is also employed to assess whether there are any significant variations between the mean scores of experimental group accomplishments in the post-tests (3.11). These results reveal that students' accomplishment in the third test has the greatest mean score, as indicated in the table, indicating that there are substantial differences between students' mean scores on the post-test (17). In this regard, the final hypothesis, the Pearson correlation coefficient is also used to determine any potential relationships between the three testes in order to accomplish the fourth objective of this study. The findings demonstrate that the Pearson correlation coefficient factors between E-Test-1 and E-Test-2 (-0.086) and E-Test-3 (-0.057). While there is a negative correlation between E-Test 2 and E-Test 1, a positive correlation exists between E-Test 3 and E-Test 1, and a negative correlation exists between E-Test 2 and E-

Test 3. (-0.090). These findings indicate that the average connection between E-Test-1, E-Test-2, and E-Test-3 is negative.

## Conclusions

The following points have been concluded from the present research:-

1- The fact that the achievement of the experimental group is higher than that of the control group shows that those students were more motivated to learn when using the dynamic assessment strategy than when using the conventional assessment strategy because the latter was more engaging and kept their interest for a longer period of time.

2. Because it was a new strategy for them and was very easy to utilize, the adoption of dynamic assessment strategies increased student participation in class.

3. While the instructor acts as a facilitator and organizer, the use of dynamic assessment tools in the classroom enables students to be active participants (student-centered).

4. Students can learn how to distinguish between important and irrelevant concepts and information by using a dynamic assessment technique. They can also learn how to put disparate pieces of knowledge together to produce a comprehension component.

5. Utilizing a dynamic assessment technique when creating lesson plans for instruction enhanced instructional variety, which naturally reduced students' irritation with seeing the same things repeatedly.

## References

1- Alderson, C. (1995) Dictionary of Language Testing. London: Cambridge University Press.
2- Al-Hroub, A., & Whitebread, D. (2019). Dynamic assessment for identification of twice-exceptional learners exhibiting mathematical giftedness and specific learning disabilities. Roeper Review, 41(2), 129-142.
3- Anderson, L. W. (2003). Classroom assessment: Enhancing the quality of teacher decision making. Routledge.
4- Anderson, R. T. (2001). Learning an invented inflectional morpheme in Spanish by children with typical language skills and with specific language impairment (SLI).

5- Brown, H. D., & Abeywickrama, P. (2010). Language assessment: Principles and classroom practices (Vol. 10): Pearson Education White Plains, NY.

6- Brown, H. Douglas. (2004). Language Assessment Principle and classroom practices. San Francisco state University: Pearson Education, Inc.

7- Carter, Ronald and Nunan, David. (2001). The Cambridge Guide to Teaching English to Speakers of Other Languages. Cambridge University Press.

8- Collins, V. (1987). "Age and rate of acquisition of second language for academic purposes". TESOL Quarterly, 2 (1), 617- 641.

9- Cook, David, R (1967). A Guide to Educational Research.3ed, United States of America Cambridge University Press. http://doi.org/10.1017/CBO9780511732980.

10- Cook, V. (2008). Second Language Learning and Language Teaching (4th ed). Malta: Hodder Education

11- Davies, A. (1990). Principles of Language Testing. Cambridge Blackwell, Ltd.

12- Feuerstein, R. (1979) The dynamic assessment of retarded performers: The learning potential assessment device, theory, instruments, and techniques. University Park Press

13- Feuerstein, R., Falik, L., Rand, Y., & Feuerstein, R.S. (2006). Creating and enhancing cognitive modifiability: The Feuerstein Instrumental Enrichment.

14- Feuerstein, R., Rand, Y., & Rynders, J. E. (1988). Don't accept me as I am. New York: Plenum.

15- Fraenkel, J. R., & Wallen, N. E. (2003). How to design and evaluate research in education. Fifth edition. New York: McGraw-Hill Higher Education.

16- Gipps, Carline V. (1995). Beyond Testing: Towards a Theory of Educational Assessment. London: The Flamer Press.

17- Goodman, K, S. (1973) "Psycholinguistic Universals of Reading Process in Smith, F (ed). Psycholinguistics and Reading. New York: Hall, Rinhart and Winston.

18- Gronlund, N. E. (1971) Measurement and Evaluation in Teaching, Instructor's Manual.

19- Hamm, M., and Adams, D (2009). Activating assessment for all students: Innovative activities, lesson plans, and informative assessment. R and L Education.

20- Harlen, W. (2007). Assessment of Learning. Sage.

21- Harris, D. R. (1969). Teaching English as a Second Language. New York: Mc Graw- Hill Book Com.

22- Hughes, A. (2003). Testing for Language Teachers (Second Ed). Cambridge: University press.

23- Jensen, M. R., & Feuerstein, R. (1987). The Learning Potential Assessment Device: From philosophy to practice. In C. S. Lidz (Ed.), Dynamic Assessment: An interactional approach to evaluating learning potential. New York: Guilford Press, 379-402

24- Khaghaninejad, M. S. (2015). Dynamic assessment: From theory to practice. LAP Lambert Academic Publishing.

25- Lantolf, J. P. & G. Appel. (1994). Vygotskian Approaches to Second Language Research. Norwood, NJ: Ablex Publishing.

26- Lantolf, J.P. & Poehner, M.E. (2004.) Sociocultural Theory and the Teaching of Second Languages. London: Equinox Publishing Ltd.

27- Lidz, C.S. (Ed.). (1987). Dynamic assessment: An interactional approach to evaluating learning potential. New York: Guilford Press.

28- Marshall, C., & Rossman, G. B. (1999). Designing qualitative research (3rd ed.). Sage Publications, Inc.

29- Messick, S. (1998). "Consequences of test interpretation and use: The fusion of validity and values in psychological assessment". In Problems and solutions in human assessment (pp. 3-20). Springer, Boston, MA.

30- Mousavi, S. A. (2009). An encyclopedic dictionary of language testing (4 th ed) Tehran: Rahnama publications.

31- Nair, Tara S., Bindu, R.L., (2016). "Effect of blended learning strategy on achievement in biology and social and environmental attitude of students at secondary level". J. Sch.Educ. Technol. 11 (4), 39-52

32- Nevo, B. (1985). "Face validity revisited". Journal of Educational Measurement, 22(4), 287-293. Retrieved from https://www.jstor.org/stable/1434704?seq=1#page_scan_tab_contents.

33- Pennington, Donald (2003). Essential Personality. Publisher: London: Arnold; 2003. Essential psychology series.

34- Poehner, M. E. (2008). Dynamic assessment: A Vygotskian approach to understanding and promoting L2 development (Vol. 9). Springer Science and Business Media.

35- Poehner, M. E., & Lantolf, J. P. (2005). Dynamic assessment in the language classroom. Language Teaching Research, 9(3), 233-265.

36- Ravitch, D. (2007). "The truth about America's schools: is K-12 education lagging badly, or have we raised our sights'? Diane Ravitch answers the tough questions." The American (Washington, DC), 1(5), 70-78.

37- Richards, C. and Schmidt, R (2010). Dictionary of Language Teaching & Applied Linguistics. 4th ed. Essex, Person Education Limited.

38- Rosas, M. (2000) "The Level of Difficulty and Discrimination Power of the Basic Knowledge and Skills Examinations". Available at http://2n0.1/contents- backhoff. pdf redieuabc.mx/contenidolvo1.

39- Sternberg, R. J. and E. L. Grigorenko. (2002). Dynamic Testing. The Nature and Measurement of Learning Potential. Cambridge: Cambridge University Press.

40- Tabatabaei, S. & Bakhtiarvand, M. (2014). Application of Dynamic Assessment in Second and Foreign Language Teaching. International Journal for Teachers of English, 4(3), pp. 1-14.

41- Tzuriel, D. (1992a). The dynamic assessment approach: A reply to Frisby and Braden. Journal of Special Education, 26, 302-324.

42- Tzuriel, D. (2000). Dynamic assessment of young children: Educational and intervention perspectives. Educational Psychology Review, 12(4), 385-435.

43- Tzuriel, D. (2001) Dynamic Assessment of Young Children (1$^{st}$ ed.). New York Softcover reprint of hardcover

44- Tzuriel, D. (2012). Dynamic assessment of learning potential. In Self-directed learning oriented assessments in the Asia-Pacific (pp. 235-255). Springer, Dordrecht.

45- Van, D (1962). Understanding Educational Research, New York: Mc Grow – Hill, Inc.

46- Vergara, L., Caraballo, J., Castellon, D., Vásquez, C, y Becker, E. (2019). Dynamic Assessment Approach in Language Teaching: A Review. Zona Proxima, 30, 82-99.

47- Verma, G. K. and R. M. Beard (1981) What is educational research?: perspectives on techniques of research, United Kingdom: Gower Publishing Company.

48- Vygotsky, L. S. 1978 mind in society Cambridge, M. A Harvard University Press.