

An Empirical Study of the Application of Dynamic Assessment in EFL Students' Academic Writing

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Abstract:

This study investigates the impact of Dynamic Assessment (henceforth DA) on the academic writing skills of Kurdish EFL university students. In this study 28 second-stage students at Cihan University- Sulaimaniya participated. They were divided into two groups: a control group, which received traditional teaching and assessment method, and an experimental group, which received teaching and assessment based on the DA sandwich format. Over the course of 15 sessions, both groups underwent a pre-test, followed by the experimental group's exposure to DA and the control group's adherence to traditional methods. A post-test was administered to both groups to evaluate any significant differences in their academic writing abilities. One-Way ANOVA analysis was conducted to examine these differences. The results revealed a substantial improvement in the academic writing performance of the experimental group exposed to DA compared to the control group. This improvement underscored the efficacy of DA in enhancing students' writing abilities. Additionally, DA was found to alleviate students' anxiety and promote active involvement in self-reflection, error identification, and collaborative problem-solving with a mediator. The pedagogical implications of this study highlight the advantages of a student-centered, participatory assessment approach over a teacher-centered one. They underline the need for educators to adapt their teaching methods to foster critical thinking, self-correction skills, and active student engagement, ultimately facilitating students' performance in the academic writing.

Key words: Dynamic assessment, interventionist approach, sandwich format, mediation, academic writing.

المخلص:

تتناول هذه الدراسة تأثير التقييم الديناميكي على مهارات الكتابة الأكاديمية لدى طلاب اللغة الإنجليزية المتعلمي اللغة لغة أجنبية. شارك في هذه الدراسة 28 طالباً من المرحلة الثانية في جامعة جيهان-السليمانية. تم تقسيم المشاركين إلى مجموعتين: مجموعة ضابطة التي تلقت أسلوب التدريس والتقييم التقليدي، والمجموعة التجريبية، تلقت التدريس والتقييم على أساس نسق ساندويش التقييم الديناميكي. على مدار 15 جلسة، خضعت كلا المجموعتين لاختبار مسبق، تلاه تعرض المجموعة التجريبية للتقييم الديناميكي والتزام المجموعة الضابطة بالطرق التقليدية. تم إجراء اختبار بعدي لكلا المجموعتين لتقييم أي فروق ذات دلالة إحصائية في قدراتهم في الكتابة الأكاديمية. تم إجراء تحليل ANOVA أحادي الاتجاه لفحص هذه الاختلافات. كشفت النتائج عن تحسن كبير في أداء الكتابة الأكاديمية للمجموعة التجريبية المعرضة للتقييم الديناميكي مقارنة بالمجموعة الضابطة. وأكد هذا التحسن على فعالية التقييم الديناميكي في تعزيز قدرات الطلاب على الكتابة. بالإضافة إلى ذلك، وجد أن التقييم الديناميكي يخفف من قلق الطلاب ويعزز المشاركة النشطة في التفكير الذاتي وتحديد الأخطاء وحل المشكلات بشكل تعاوني مع الوسيط. تسلط الآثار التربوية لهذه الدراسة الضوء على مزايا نهج التقييم التشاركي الذي يركز على الطالب على النهج الذي يركز على المعلم. ويؤكد على حاجة المعلمين إلى تكييف أساليب

التدريس الخاصة بهم لتعزيز التفكير النقدي ومهارات التصحيح الذاتي والمشاركة النشطة للطلاب، مما يسهل في النهاية نجاح الطلاب في مجال الكتابة الأكاديمية.

الكلمات المفتاحية: التقييم الديناميكي، المنهج التداخلي، صيغة الساندويتش، التوسط، الكتابة الأكاديمية.

بوخته:

تتشكّل ثمّة تويژينهويه لهسر كاريگمري شيوازي هلسنگاندني دايهيميكيبه لهسر كارامبي نوسيني نهكاديمي نهو خويندكارانهي كه ئينگليزي وهك زماني بياني فيرديمين. لهم تويژينهويهده ۲۸ خويندكاري قوناغي دووهي زانكوي جيهان-سليماني بهشداربيان كردوه. بهشداربووان بهسر دوو گرووپدا دابهشكارابون: گرووپي كونترول، كه شيوازي باوي وانه وتنهوه وهلسنگاندنيان بهسر دا جيهيجيكرابوو، گرووپي تافيكاري (ئهمووني)، كه شيوازي تافيكردنهوه وانوتهوهيان لهسر بنههاي شيوازي هلسنگاندني دايهيميكيبه ساندوهيچيان بهسر دا جيهيجيكرابوو. له ماوهي ۱۵ كويونهوهده، هردوو گروپكه هلسنگاندني بهراييان (پيشه-تافيكردنهوه) نهجامدا، له پاش نهمه گرووپي تافيكاريهكه ناشناكران به شيوازي هلسنگاندني دايهيميكيبه، نهمه له كاتيكدا گرووپي كونترول لهسر ريبازي باوي وانوتهوه وهلسنگاندني بهردوام بوون. دواتر پاشه-تافيكردنهويهك بو هردوو گروپكه نهجامدا بهمههستي روانين وهلسنگاندني هس جياوازيهكي بهرچاو، كه رهنكه له كارامبي نوسيني بهشداربوواني هردوو گروپكهدهمربكهويت. شيكاري بهكلايهيهي ANOVA نهجامدا بهمههستي پشكنين و ليكولينهوه لهم جياوازيانه. به بهراورد لهگهل گرووپي كونترول، نهجامهكان نامازميان به بهرزبوننهوهي بهرچاو له ناستي نوسيني نهكاديمي بهشداربوواني گرووپي تافيكاري دا، كه بهركهوتنيان لهگهل شيوازي هلسنگاندني دايهيميكيبه ههبوو. نهم پيشهوهچونه جهخت لهسر كاريگمري شيوازي هلسنگاندني دايهيميكيبه له باشكردني تواناي نوسيني خويندكاراندا دهكاتوه. ويراى نهمانه، تيبيني نهوه كرا كه شيوازي هلسنگاندني دايهيميكيبه دلهر اوكتي خويندكاراني كه مكر دوتنهوه ونهم شيوازه خويندكار هان دهكات كه چالاكانه له خود-تير امان، ناسينهويه ههله، و چارمهسري كيشهكان به شيوازي پيكهيهي لهگهل ناوندياردا، بهشداري بكن. كاريگمريه پيداگوچيهيكاني نهم تويژينهويه تيشك دهخنه سر سوودمكاني ريبازي هلسنگاندني خويندكار-تهومري، كه لهسر بنههاي بهشداريكردي خويندكار بونيد نراوه، له هممه ريبازي ماموستا-تهومرييدا. نهم تويژينهويه جهخت لهوه دهكاتوه، كه گرنگه بهرومردومان شيوازي وانوتهوهيان به شيوازيك ريكبخهن، كه پالپشتي بيركردنهويه رهنهيهي، كارامبي خود-راستكردنهوه، بهشداريكردي چالاكي خويندكاران بكات و، له كوتاييدا بتوانيت رينموني خويندكاران بهروم سركهوتن له كايهيهي نوسيني نهكاديميدا بكات.

كليله وشه: هلسنگاندني دايهيميكيبه، ريبازي دهستتومردانگهرايي، شيوازي ساندويچ، نيومندگيري، نوسيني نهكاديمي.

1. Introduction

One of the most significant and prerequisite standards to determine students' level of language performance is the process of educational assessment. So far, the type of the assessment that is commonly used in the educational system is called static assessment. According to this type of assessment, the efficiency of students is greatly reflected by the results they obtain when having a test (Mehri & Amerian, 2015). This means that this assessment entirely ignores the fact that students develop many language abilities while learning various materials. In other words, it only concentrates on the current knowledge which has been mastered by the students.

This can be considered as a kind of problem since this assessment will not consider the process of gaining abilities; it only measures the outcomes numerically. Consequently, there have been numerous adjustments made to the method by which students' academic progress is measured. According to Lubbe (2004), moving away from singular psychological testing towards more all-encompassing DA has far-reaching effects on the entirety of educational assessment. In contrast to traditional forms of assessment, DA is process-oriented rather than output-focused (Anton, 2009). Teaching and learning can benefit from DA because of its emphasis on real-time feedback (Lantolf

& Poehner, 2004). As such, a new alternative assessment should be applied when teaching how to write so as to promote the performance of those learners who write English academically (Abdalkarim Amin & Farooq Jawad, 2023). This new assessment is called DA which does not only consider the product of learners' writing but it also integrates teaching while the process of assessment is ongoing.

What is important about this type of assessment is that it can efficiently measure and develop students' skills of language. One of the skills that EFL students largely need and use is writing which is one of the most significant educational processes; an activity that includes various linguistic skills. Language difficulties, such as morphosyntactic and intralingual errors, are common among university-level Kurdish EFL students. Teaching writing is improper and ineffective since the products of those students are not sufficient due to the presence of any or all of the aforementioned faults and incompetence (Amin, 2017). This shows that students have great difficulty meeting the many demands placed when they write. These include the need to outline, structure, punctuate, and organize the many themes they cover in writing (Abdalkarim Amin & Farooq Jawad, 2023).

It is important to note that DA takes place in face-to face, making its implementation all the more important and influential (Shrestha, 2020). EFL Kurdish learners are used to having a specific method of assessment while instructed to write in classrooms; the use of this assessment might be confusable to a certain extent and, hence, DA should be dealt with gradually and cautiously so as to obtain the expected results. In light of these factors, this article makes an effort to establish the value of DA among university-level Kurdish EFL students.

2. Dynamic Assessment

Dynamic assessment (DA) is known as the alternative assessment to the traditional assessment, while the traditional assessment tries to sum up with the students learning process at a specific purpose. As a result of DA, educators and academics no longer regard evaluation in the same way they formerly did. As a criterion, DA suggests combining assessment with classroom instruction (Abdalkarim Amin & Farooq Jawad, 2023). Shrestha (2020, p. 2) defines DA as "an assessment approach that blends instruction with assessment."

Based on Vygotsky's theory of development, integrating assessment and teaching helps teachers better grasp their students' current knowledge and guide them toward more advanced learning. Vygotsky (1978, p. 86) states that the concept of the ZPD is "the distance between the actual developmental 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". Based on this idea, he clearly separates the developmental process into the past and future, with the action where a young learner plays a pivotal role in both. Past progress indicates a young learner's capacity for autonomous action, while future progress can be explored with finesse due to the young learner's own achievement in the form of mediation (Abdalkarim Amin & Farooq Jawad, 2023). To this end, educators and researchers will consider not just students' current skills but also their future potential, guiding them toward their goals (Poehner, 2005).

Integrating assessment and teaching is the criterion which DA proposes, they should not be seen as two different activities but they should be integrated (Poehner, 2008). Examining the process rather than the result is recommended as a means of comprehending cognitive operation (Lantolf & Thorne,

2006). Consequently, one of the main goals of DA is to place more importance on the method of learning than the end result. This will allow teachers to see where their students are struggling and where they are succeeding, and to better plan for their development (Abdalkarim Amin & Farooq Jawad, 2023).

3. Interventionist vs. Interactionist Approaches to DA

There are two primary approaches of DA, namely ‘interventionist’ and ‘interactionist’, as stated by Lantolf and Poehner (2004), Poehner (2008), and Shresta (2020), while the interventionist approach has two formats ‘sandwich’ and ‘cake’. The sandwich format involves the utilization of a pre-test, intervention, and post-test. Poehner (2008) states that Budoff and his colleagues were among the first researchers to try out the sandwich format, also known as the “pretest-intervention/training-post-test” structure. This format entails the implementation of a pre-test to assess the learner's current level of performance. The intervention is designed based on the results of the pre-test in order to provide targeted support and constructive feedback to improve the learner's abilities. Poehner (2008) posits that a range of intervention strategies can be utilized, including instruction, scaffolding, feedback, and coaching. He suggests giving a post-test to evaluate the learner's development and identify areas where they still need help following an intervention. To determine what kind and how much help a student needs to reach the next performance level, the sandwich format is used. In their studies on language learning, Budoff and his coworkers (as cited in Poehner, 2008) employed the “sandwich” design, which consists of a baseline assessment of the students' abilities followed by an intervention consisting of specific instruction and feedback. Their research confirmed that the sandwich style helped students retain more information and progress further in their language studies.

Cake format on the other hand, during the process of giving the test, the examinee is given guidance based on a predetermined list of suggestions that might range from being subtle to being overt “implicit to explicit” (Lantolf & Poehner, 2004, p. 55). It is crucial to acknowledge that the mediation offered in the interventionist cake format must be meticulously crafted and customized to meet the distinct requirements of the learner. Although the time allotted for hints, feedback, or prompts may be restricted, it is imperative that they remain effective in aiding the learner to enhance their performance on the assessment (Mauludin, Ardiandi, Prasetyo, Sefrina, & Astuti, 2021).

This format entails presenting learners with a progressive sequence of tasks or items that escalate in complexity. Poehner's (2008) states that, a learner who demonstrates proficiency in a given task is presented with a more advanced task. Conversely, if a learner encounters difficulty with a task, the assessor provides graded support and feedback to facilitate successful task completion. The provision of support is frequently prompt and can be tailored to the learner's level of requirement, akin to the stratification of icing on a cake (Sternberg, 2005, as cited in Tabatabaei, & Bakhtiarvand, 2014).

The second DA approach is known as the interactionist, in which the one-sided method of the teacher-student position is largely neglected and, instead, the mediator provides direct support to the learners. In this situation, the assessment takes the shape of a friendly chat in which the learner can receive assistance in a supportive environment (Poehner, 2005). As such, the distinction between the two is one of assistance; with the interventionist, the mediator's role is to provide prompts, hints, and suggestions that have already been prepared based on the learners' weaknesses, whereas with the

interactionist, the immediate conversation and dialogue between the two is the pivot around which the learning process revolves. In general, it is possible to state that the use of DA in language education is critical for building teacher-learner relationships. As a result, the learners' performance, interaction, and abilities would improve, and the teaching-learning objectives would be met more efficiently.

Assessing students' levels of responsibility and preparing them to take responsibility of their own learning requires collaborative and dialogic mediation in interactionist DA. According to the theory of mediated learning proposed by Feuerstein, Falik, Rand, & Feuerstein (2003), this strategy helps students learn new material through facilitated conversations with experts.

The assessor can help the student become a more active and self-directed learner by working collaboratively together with the learner and engaging in reflective discourse. Vygotsky states that, the relationship between the examiner and the examinee is referred to as "cooperative" (Vygotsky, 1998, p. 201). As a result, the interaction that appears takes place between the mediators and the learners, which can be influenced by ZPD.

4. Mediation

Vygotsky placed significant emphasis on the role of language as a means of communication and interaction, encompassing not only verbal speaking but also the utilization of signs and symbols. Language serves as the primary medium via which culture is transferred, thinking is developed, and learning takes place. Vygotsky's method can be characterized as 'holistic', as he rejected the notion that learning can be fragmented into isolated subcomponents and taught as discrete entities and skills. Conversely, he maintained that the focal point of any unit of study should be the incorporation of meaning. Furthermore, it is essential that every unit of study is presented in its whole, encompassing all its intricacies, rather than isolating skills and knowledge (Williams & Burden, 1997).

The concept of mediation is fundamental to the psychological theories of both Vygotsky and Feuerstein. The concept being discussed is commonly referred to as "mediation" within the framework of social interactionist psychology. Mediation or scaffolding pertains to the role performed by influential individuals in a learner's social circle, who contributes to the learning process by carefully selecting and molding the educational encounters that are offered to the learner (ibid).

Vygotsky and his followers view 'tools' as a form of mediation. Anything that aids in the process of problem-solving or goal-attainment might be considered a tool. Symbolic language is one of these instruments, and it is one of the most essential ones (Kozulin, 2003). The importance of mediational language in guiding students into and through their zones of proximal development (ZPD) is highlighted by these theories.

The "teachability hypothesis" proposed by Pienemann (1989) builds on this idea by positing that instruction can facilitate language learning if the form to be learnt is close to the next form that would be acquired naturally in the learner's interlanguage. Based on this, teachers should teach subjects which are close to the students' existing level. In order to cater to the individual demands of a certain

class and context, teachers must carefully choose the aspects of mediation to incorporate into a particular activity.

The differences between a mediator and a teacher are highlighted by (Williams & Burden, 1997) where the focus of ‘mediator’ is on educating students for future cultural and social changes and helping them to face new difficulties, as well as developing autonomy through strategic engagement with course materials, and finally highlighting the learner’s agency and flexibility.

5. Academic Writing

Academic writing is characterized by the use of proper punctuation, vocabulary, and grammar. Most written works are several paragraphs long and reflect a straightforward and unambiguous style. Editing and rewriting the material to improve its language, style, and structure is a standard practice in academic writing. It is crucial that students acquire the knowledge and abilities necessary to competently compose formal texts of diverse genres (Ur, 2012).

The initial stage of academic writing typically involves the identification of a research question or topic that warrants exploration. According to Moeinpour, Nasiri, Pineh, and Davarpanah (2019), the process entails identifying a subject matter that piques the interest of learners and motivates them to seek further knowledge. The process of identifying a research question or topic is deemed significant as it offers a sense of concentration and guidance for the writing process. The process of narrowing one’s focus and formulating a clear thesis statement is beneficial for learners as it enables them to effectively convey the main argument of their paper.

According to Xiaoxiao & Yan (2010), it is crucial to take into account the intended readership and the objectives of one’s written work when selecting a research inquiry or subject matter. Moreover, the act of substantiating a viewpoint necessitates that students comprehend the norms of scholarly composition, which encompass the obligation to reference authoritative materials and furnish proof to bolster their assertions. The task can pose a significant difficulty for students who lack familiarity with the conventions of scholarly writing or have limited exposure to research. Expressing a viewpoint necessitates learners to participate in the process of critical thinking, which encompasses scrutinizing information, assessing arguments, and deducing conclusions grounded on evidence. The process can prove to be arduous, especially for individuals who possess limited familiarity with academic writing or encounter difficulties in articulating their thoughts in a lucid and cohesive manner.

6. Related Studies

Many studies have been conducted in the field of language learning and language education to examine the role of DA in improving the learners’ writing abilities aiming at improving classroom performance.

In his PhD dissertation, Poehner (2005) tries to provide an alternative way of conceptualizing the relationship between assessment and instruction, and investigates the effect of DA on learner’s speaking abilities. The participants were asked to orally construct a series of narratives in French based on short video clips. The first narrative was created independently, but they received support

with the second narrative. The participants met a six-week long enrichment program with the researcher so as to identify the problems during the assessments. The results of his study suggest that DA is a significance tool to understand the ability of the learners, and assist them to tackle linguistic problems which they encounter. Finally, he recommended that DA should be taken into consideration by the researchers in the field of assessment, teaching, and learning.

Aghaebrahimian, Rahimirad, Ahmadi, & Alamdari (2014) attempted at verifying the significance of DA in enhancing teaching how to write skillfully. As with the aforementioned studies, the participants, who were 20, were divided into experimental and control group. DA was used to assess the learners' performance in the experimental group while the learners in the control group were assessed in a traditional way. The results demonstrated that there was a progress in the way they write an essay. The study concluded that using DA is the most appropriate approach to develop the performance of the learners while they write focusing on ongoing process rather than the learners' final product. This explicitly shows that using DA as a tool to empower the performance of learners' writing skill is more effective, positive and fruitful than other types of assessments. More interestingly, the study concluded with the fact that DA has a far-reaching effect on the process of learning. DA would also impact the way of teaching how to write more effectively and efficiently.

Khoshshima & Mortazavi (2016) conducted a study on the impact of interactionist DA on explanation writing ability of intermediate EFL learners. The objective of their study was to combine the principles of DA with the process-genre approach in order to deliver feedback for the purpose of teaching explanation genre writing. The study included a total of 10 participants who were students pursuing a Bachelor's degree in English translation at Chabahar Maritime University. The findings from the independent samples t-test indicated that the participants who were exposed to the interactionist approach of discourse analysis exhibited superior performance in the posttest compared to the control group. The study's findings indicated that the provision of feedback through negotiation facilitated students' comprehension of their difficulties and facilitated their resolution.

The study conducted by Xiaoxiao and Yan (2010) examines the relationship between technique and epistemology in the context of DA. This study centers on the framework or procedure for English writing training that incorporates the principles of DA. This case study demonstrates that the implementation of a dialogic teaching approach in the context of DA has a crucial role in enhancing students' interest and proficiency in writing. The study not only offered valuable insights into educational practices, but also shed light on the role of creativity in English writing training.

In a study conducted by Sadek (2015), a qualitative investigation was undertaken to examine the effects of DA on the writing skills of ESL learners. The study consisted of six individuals. The research was carried out by implementing several data collection methods, including pretest and posttest assessments, interviews, and observations. The findings indicate that the use of DA has a beneficial effect on the quality of content, language proficiency, and organizational structure in the writing of ESL learners. According to reports, both students and teachers have provided positive evaluations of the approach, as it enables students to concentrate on addressing their unique areas of difficulty. The research findings indicate that the implementation of the DA model in ESL writing demonstrates efficacy in addressing the challenges associated with students' learning progress.

Mauludin, et al. (2021) investigated how DA improves students' descriptive writing in ESP classes where 70 students participated. The weekly class lasted 90 minutes. Participants were split into control and experimental groups. The control group was taught traditionally, whereas experimental group DA employed the cake format to mediate and intervene between pretest and posttest. The trial lasted four weeks. Data were collected after a mixed technique design. The two groups were compared using a T-test. They found that DA improves composition writing skills. Student opinions were then sought via an open-ended questionnaire. Positive responses were given to DA.

Scholars that researched the interventionist technique using the “sandwich format.” found a difference between declared methods and actual strategy implementation. Interestingly, these studies aimed at the role of DA in improving various skills including writing. The literature neglects the fact that DA does not always retain the distinction between interventionist and interactionist approaches. The theoretical understanding and application of interventionist (sandwich and cake formats) and interactionist approach can be utilized more efficiently. Our disparity strengthens our study's contribution to DA technique refinement and field development. To the best of the authors' knowledge, Iraqi Kurdistan universities have never conducted DA research before; thus, this work is considered to be groundbreaking.

7. Methodology

The study aimed to examine the effectiveness of DA in enhancing academic writing skills among Kurdish EFL university students. The participants of the study were 28 students from the second stage at the department of English language in Cihan University-Sulaimaniya. Two groups, a control and an experimental, were formed from the participants, equally.

7.1. Instrumentations

Pre- and post-tests were used to compile the data. Before conducting the experiment, the writing skills of both the experimental and control groups were administrated with a pre-test. There was one essay question on the pre-test, which was administered traditionally. A post-test to look for changes in the two groups after implementing the intervention (the sandwich format) was administrated.

7.2. Research Procedure

The interventionist approach utilizes a “sandwich format” consisting of preliminary tests (pre-test), program implementation (intervention), and follow-up assessment (post-test). Kurdish EFL university sophomores from the English department at Cihan University- Sulaimaniya were chosen for the study to better understand the role of DA in academic writing. The students had already learnt the basics of writing because composition (writing one paragraph) was covered in the first stage.

The treatment phase began immediately following the pre-test, with two distinct groups receiving instruction at different times and in different locations. Both groups were given lectures on concepts central to the essay-writing curriculum. The researcher selected two books to be taught in the course of essay writing; ‘Academic Writing: From Paragraph to Essay’ by Rumisek & Zemach (2009), and ‘The Practical Writer with Readings’ by Bailey, & Powell (2008).

The study compromised 15 sessions, the experimental group participated in the sessions of mediated instruction, as the intervention is crucial to the sandwich format. While the non-experimental group was given the standard curriculum, which often emphasize a greater focus on the role of the instructor; teacher-centered. The mediator (researcher) focused on pre-test writing weaknesses in subsequent instruction sessions. In the course's fifteen sessions, the mediator covered the five-paragraph essay's structure, including the introduction's motivator, thesis statement and blueprint, the body paragraphs, and the conclusion's rewarding thesis statement and clincher. The sessions taught how to write a solid thesis statement, introducing and concluding paragraphs, and an essay's structure, as well as the importance of outlining. Unity and coherence in essays were also covered. The mediator covered punctuation marks, comparison and contrast, and cause and effect in the sessions. Each class also included essay samples to help participants identify and emphasize essay components.

The control group received instruction using conventional methods, the students received feedback in a more conventional format, which are used in a more traditional classroom setting, such as verbal or written comments. The experimental group, in contrast, participated in mediated training sessions "intervention" that was sandwiched between pre-test and post-test. As a result of introducing DA, the mediator in the experimental group was able to give students more help and mediation. The sandwich format is more conducive to individual learning needs. The "sandwich" format is so-called because it consists of three distinct phases: first, direct instruction, in the form of a brief, topic-specific lecture or demonstration on, say, how to write an effective introduction paragraph for an essay.

Then, they put what they learned into practice by doing several exercises. At this point, the mediator went around the classroom, assisting students and addressing their queries. Students were able to put their knowledge to use while receiving prompt feedback and guidance. Students worked on exercises on their own or in small groups with the mediator's supervision. The small class size allowed for a variety of teaching strategies to be implemented, as students were split into smaller groups for certain sessions based on the content being covered. Another perk of having a manageable class size is that desks can be arranged in a horseshoe formation, which is consistent with CLT's tenets.

In addition, strategies for scaffolding learning were provided to assist students in making the transition from their current level of knowledge to the intended objective. In some of the sessions enough time were provided to the students to review what they have had studied. The students were asked to reflect on their studies such as, detailing both their successes and failures. This enabled students to communicate their knowledge and further solidify their learning.

Students were not merely receptive to new information; rather, they were engaged with the sandwich format through practice and reflection. Both groups were given a post-test at the end to see how much development they had made in terms of academic writing. This phase involved no mediation for any of the groups involved, including the experimental group, to evaluate the impact of the sessions of static and dynamic assessment-based instruction.

7.3. Data Collection

The scores of pre and posttests were compared to check any development and progressive in the students' academic writing skills. In addition, results of pre- and post-tests were compared in order to reach a confirmation that whether applying interventionist approach, sandwich format of DA had any effect on enhancing academic writing by Kurdish EFL learners. The scores obtained from the control and experimental groups were independently compared to assess any significant variations.

The results of pre and post tests were collected and scored based on the scoring procedure outlined in the ESL essay rubric. To ensure scoring reliability, the researcher, along with two experienced teachers with 8 to 15 years of teaching experience, independently scored the essays. The final score was obtained by averaging the three scores.

7.4. Data Analysis

The data analysis process involved the utilization of two statistical software packages, namely JMP PRO version 16 and SPSS version 26. Descriptive statistics were employed to provide a summary and description of the primary variables of interest. To provide a comprehensive understanding of the data distribution and central tendency such as mean, and measures of variation such as standard deviations were calculated.

A One-Way Analysis of Variance (ANOVA) was used to compare control group pre-test and post-test performance. This analysis sought to determine if the control group's pre- and post-intervention performance differed. Similarly, a One-Way Analysis of Variance (ANOVA) was used to compare pre-test and post-test performance in the experimental group. This investigation examined whether the experimental group's performance changed statistically before and after the intervention. Finally, One-Way (ANOVA) was used to compare control and experimental group performance. This analysis sought to evaluate if the two groups' final outcomes differed statistically.

8. Results and Discussion

This section shows the results and discussion of the study's findings, which are derived from the data obtained. In order to compare the outcomes of the pre-test and post-test in both the control and experimental groups, a statistical analysis procedure was conducted. This study tries to answer two questions:

1. Are there any significant differences between control and experimental groups in academic writing performance?
2. What is the role of DA in EFL students' academic writing?

The detailed explanation of this process is presented in tables below, aiming to provide a full representation of the obtained results. Descriptive statistics were utilized to offer a concise and informative overview of the key variables under investigation. The results of the study are interpreted in the following tables:

8.1. Comparing Pre-Tests for Control and Experimental Groups

Table 1. Means and Standard Deviations for One-way ANOVA of the Pre-Tests for Control and Experimental Groups

Groups	Number	Mean	Standard Deviation	Lower 95%	Upper 95%
Control	14	45.0714	4.1410094	37.203	52.940
Experimental	14	47.0714	3.4869683	39.203	54.940

Table 1 presents the mean scores and standard deviations of the pre-tests for both the control and experimental groups. The control group, consisting of 14 participants, had a mean score of 45.0714 with a standard deviation of 4.1410094. The experimental group, also with 14 participants, had a slightly higher mean score of 47.0714 and a lower standard deviation of 3.4869683. The 95% confidence interval for the control group's mean pre-test scores ranges from 37.203 to 52.940, while for the experimental group, it ranges from 39.203 to 54.940.

A one-way ANOVA is conducted to determine if the difference in mean scores between the control and experimental groups is statistically significant. This test is used to compare the means of the pre-tests between the two groups.

Table 2. One-Way Analysis of Variance (One-Way ANOVA) for Pre-Tests of Control and Experimental Groups

Source	DF	Sum of Squares	Mean Square	F Ratio	p-Value
Groups	1	28.0000	28.000	0.1365	0.7148
Error	26	5333.8571	205.148		
C. Total	27	5361.8571			

The one-way ANOVA was conducted to examine the potential difference between the mean scores of the pre-tests between the control and experimental groups by stating the following hypothesis:

$$H_0: \mu(\text{pre} - \text{test of the control group}) = \mu(\text{pre} - \text{test of the experimental group})$$

H_1 : The mean scores between groups are significantly different

The results in Table 2, since the p-value of 0.714 is greater than 0.05, suggests that there is not enough evidence to reject the null hypothesis. This means that, based on the data, it does not appear to be a significant difference between the pre-test mean scores of the control and experimental groups. This indicates that the observed difference between the two groups' pre-test mean scores is likely due to random chance, and there is no conclusive evidence to suggest a significant difference in their performances before the experiment or intervention.

This is an important observation as it suggests that both groups were at a similar level before the intervention (or treatment) was applied. This is a good starting point for any experimental study because it helps to ensure that any differences observed in post-intervention can be attributed to the intervention itself, rather than pre-existing differences between the groups.

8.2. Comparing Post-Tests for Control and Experimental Groups

Table 3. Means and Standard Errors of the Post-Tests for the Control and Experimental Groups

Groups	Number	Mean	Standard Deviation	Lower 95%	Upper 95%
Control	14	59.428571	19.704409	48.051584	70.805559
Experimental	14	72.071429	14.876229	63.48215	80.660708

Table 3 compares the post-test scores for both the control and experimental groups. The control group had a mean post-test score of 59.428571, with a standard deviation of 19.704409, indicating a wider spread of scores. The 95% confidence interval for this mean ranged from 48.051584 to 70.805559, suggesting that the true population mean lies within this range.

On the other hand, the experimental group had a higher mean post-test score of 72.071429, with a standard deviation of 14.876229, indicating a slightly less variability in scores compared to the control group. The 95% confidence interval for this mean was between 63.48215 and 80.660708. The difference in mean scores between the control and experimental groups is notable, suggesting that the intervention may have had a significant impact. However, further statistical analysis would be required to confirm the significance of this difference.

Table 4. One-Way ANOVA for Post-Tests of the Control and Experimental Groups

Source	DF	Sum of Squares	Mean Square	F Ratio	p-Value
Groups	1	2371.2340	2371.23		
Error	26	505.6945	42.14	56.2688	<.0001*
C. Total	27	2876.9286			

The one-way ANOVA table was constructed to examine the equality of means in the post-test scores between the control and experimental groups by stating the following hypothesis:

$$H_0: \mu(\text{post} - \text{test of control group}) = \mu(\text{post} - \text{test of experimental group})$$

$$H_1: \text{The post} - \text{tests between control and experimental groups are not equal}$$

Table 4 presents the results of a one-way ANOVA conducted to test the equality of post-test means between the control and experimental groups. The ANOVA results show a significant F ratio of 56.2688, indicating a substantial difference between the group means. The p-value is less than 0.0001, which is significantly below 0.05.

Given this p-value, there is strong evidence to reject the null hypothesis. This suggests that there is a statistically significant difference between the post-test means of the control and experimental groups. In other words, the intervention appears to have had a significant effect on the experimental group compared to the control group.

To answer the first question “are there any significant differences between control and experimental groups in academic writing performance?”. The experimental group exhibited a statistically significant increase in the mean post-test score ($M = 72.071429$) in comparison to the control group ($M = 59.428571$). The results of the one-way analysis of variance (ANOVA) presented in Table 4 indicate a statistically significant distinction between the experimental and control groups ($p < 0.0001^*$). The average post-test score for the control group was 59.43, up about 24.16 percentage points from before the teaching sessions. The experimental group fared significantly better after treatment. Their average score on the post test, compared to the first, improved by a remarkable 34.69%, to 72.07.

The results showed that both groups improved their academic writing skills after receiving the teaching sessions. However, when compared to the control group, the experimental group’s results increased significantly because of DA. The experimental group’s performance on the writing task improved more significantly than that of the control group after being exposed to DA.

These findings suggest that the implementation of DA resulted in enhanced academic writing proficiency specifically within the sandwich format group. This improvement of experimental group compare to the performance of control group can be due to the nature of implementing sandwich format in academic writing, as it was different from traditional way of teaching writing skills. These results support the study conducted by (Mahdavi, 2014) which revealed that the experimental groups that were exposed to the mediation approach demonstrated higher levels of success. Additionally, the study found that the use of mediated learning experience facilitated the development of learners’ writing ability. Moreover, Mauludin, et al. (2021) found that DA improves composition writing skills.

The results also support the study by Hessamy & Ghaderi (2014) who found that the experimental group that received mediation demonstrated superior performance in comparison to the control group. Furthermore, the research findings of the study by (Sadek, 2015) indicate that the implementation of the DA model in ESL writing demonstrates efficacy in addressing the challenges associated with students’ learning progress. So, the current study like previous studies, demonstrated that the use of DA has proven to be beneficial in enhancing test performance and facilitating learning, and how to improve academic writing among learners.

The sandwich format in the DA is based on the needs students have, and it points out the weakness’s students were suffering from as revealed in their pretest. The result of the students’ writing in pretest is a cornerstone in the sandwich format as it helped the researcher to understand and determine the level of the students in writing skills. After the pretest it was revealed that students experienced difficulties in the structure of essay writing and other related matters as long as writing skill is concerned. The utilization of sandwich format which was different from traditional way is shown in the following examples which are taken from one of the sessions which were taught in sandwich format. The two examples demonstrate the way in which sandwich format was utilized in the context of academic writing, the examples are a scenario of conversation between the mediator (M) and a student (S):

Example 1:

The focus of the session was on the following:

- strategies to write introductory paragraph.
- writing motivator, and thesis statement and blueprint.
- writing well-structured sentences and using mechanics properly.
- avoiding common mistakes in writing.

M: I think you have problem in writing the introductory paragraph.

S: Yes, I don't know how to write the parts of the introductory paragraph.

M: That's natural. There is a strategy that can help you; we have studied brainstorming, so brainstorm a list of the ideas, organize the ideas 'there should be three points', each point should be supported by one evidence at least.

S: Okay! I will do so.

M: Let's write the paragraph together.

Both the student and the mediator were practicing writing the introductory paragraph. At this point the mediator was providing the student with valuable support and feedback.

M: Excellent! You are improving very quickly.

S: Thank you for your help. It is easy now.

The mediator kept helping the student with advice and guidance while composing his essay. The student improved as seen by the quality of the essay she wrote for the posttest. A student who struggled with essay organization, grammar, and mechanics received instruction and support throughout the mediation portion of a sandwich-format. The individual needs of each student were carefully considered in order to tailor the curriculum and support services.

Example 2

At the end of the eighth session the students were asked to write an essay as an activity. After grading the papers, the mediator noted down the mistakes students had, and the areas that students had problems in were considered by the mediator so as to focus on in the ninth session.

The example below demonstrates the scenario that the mediator tried to guide a student who had difficulties in grammatical issues and mechanics in her previous essay, however the student did well in the structuring the essay. So, the mediator provided the student with specific instruction and feedback, as follow:

M: You did really well in the previous essay. It shows that you have understood well how to write the five paragraphs, but I found that you have some difficulties in grammar and punctuation marks as well as the capitalization.

S: Yes, exactly I think it difficult and sometimes I don't know how to use comma and semi-colon.....

M: It happens. Let me help you how you can avoid this difficulty. Comma is used to separate two independent clauses, for example in this sentence you wrote "University teachers are approachable and they are friendly." In this sentence you need to put a comma before 'and'. But to separate two

independent clauses which are related closely, a semi-colon can be used. For example, ‘University teachers are approachable; they are friendly.’

S: That was very helpful thanks.

M: Let’s check the rest together.

The student and the mediator were engaging using ‘comma’ and ‘semi-colon’, by providing feedback, support, and guidance tell the student became able to use them correctly.

M: Concerning the grammatical issues you have, let me explain them to all of you. Check the white board. Then, the mediator had the attention of all the 14 students where they were sitting in a horseshoe shape. ‘Please pay attention to this grammatical point’, the mediator explained the way present perfect is used by elaborating with different examples.

The objective of the mediation phase was to furnish the students with the necessary guidance and assistance to enhance their proficiency in essay writing. In each session, an assessment was administered to serve as a mediator for assessing the essay, aiming to detect the student's errors and ascertain their readiness to progress to the subsequent level of training. Additionally, the mediations in all sessions affected the results of posttest.

The enhancements observed to the experimental groups can be attributed to the implementation of DA, which played a pivotal role in improving multiple facets of writing. To this end the second question of the study can be answered as states “What is the role of DA in EFL students’ academic writing?” The following points show the role of DA in students’ academic writing:

1. DA has played a significant role in enhancing the process of content development, giving students personalized comments and attention, and encouraging writing risk-taking and experimentation. The chance to consider different viewpoints helped them write more complex essays.
2. The feedback and prompts presented to the students served as a means to stimulate critical thinking regarding the selection of words and the utilization of language, thereby resulting in the development of a more refined and diverse linguistic repertoire in their academic writing.
3. The implementation of DA has been found to contribute to the improve both mechanics and language. The students were provided with precise and focused feedback pertaining to grammar, punctuation, and spelling, thereby aiding them in enhancing the technical precision of their written work.
4. The continuous engagement between the mediator and students, along with the interactions among peers, facilitated the development of trust and cooperation, and mitigate students’ anxiety thereby enhancing students’ self-assurance in articulating their thoughts in written form.
5. DA caters to each student’s specific Zone of Proximal Development (ZPD). It allowed students to obtain customized help and improve their abilities. An individualized approach helped the individual generate better written work, supporting writing skill growth.

9. Conclusion

This study investigated the role of DA in academic writing by Kurdish EFL university students. The findings indicated a statistically significant enhancement in the writing proficiency of students when DA was utilized. Nevertheless, the implementation of DA, specifically with the sandwich format, represented a hopeful departure from traditional methodology. The utilization of the sandwich format, consisting of a pre-test, intervention, and post-test, provided a controlled and supportive learning environment that enhanced students' writing abilities. The mediation process inherent in the DA technique facilitated students' active involvement in self-reflection, error identification, and collaborative problem-solving with mediator. This procedure facilitated the development of a more profound understanding of writing mechanics and promoted the employment of remedial input.

The DA employed in this study was based on Vygotsky's sociocultural theory's ZPD. The cooperative dialogue, feedback, and mentoring between students and mediator represented the ZPD. A great example of "scaffolding," when the mediator pushes students beyond their abilities with tailored encouragement. Students were allowed to test their intellectual limits while receiving just-in-time guidance under the mediator's observant eye. These findings confirm Vygotsky's (1978) proposal that the ZPD is the most effective learning environment, where learners push their skills under the watchful mentoring of more experienced learners.

10. Pedagogical Implications

The current study has pedagogical implications for academic writing classrooms and syllabus designers. Applications in teaching and assessing writing in addition to some key implications are listed in the following:

1. Current pedagogical theory favors student-centered, participatory assessment over teacher-centered. Teachers must change their approaches so students can take care of their education and develop critical thinking and self-correction skills for success.
2. The research strongly supports DA in EFL classrooms. This merging should be scaffolded across different competence levels to ensure skill growth. DA encourages writing improvement by encouraging students to participate in revision.
3. Teachers can foster a culture of collaborative learning in which students actively contribute to one other's progress by designing peer interaction, mentorship, and evaluation activities.

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