The Effects of Revised Bloom's Taxonomy Enriched Instruction on EFL Learners' Writing Performance in an Academic Writing Course

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Abstract: Bloom's Taxonomy has received considerable attention on a global scale since it was first introduced by Benjamin Bloom and his associates in 1956. Since then, it has served as the basis for test design and curriculum development in many institutions globally. Bloom's Taxonomy was revised in 2001 by Lorin W. Anderson and his associates to refine terms in learning objectives. Six classifications have been set to define learning outcomes in a graded way. To this aim, current study was carried out to measure the effects of Revised Bloom Taxonomy enriched instruction on students' scores in an Academic Writing course. 40 students,17 female and 23 male ones, were chosen through systematic sampling method. The students were studying at TISHK International University Language Preparatory School located in Erbil, Iraq in 2021-2022 Academic Year. Control group students received traditional writing instruction, whereas experimental group students were exposed to Revised Bloom's Taxonomy integrated instruction. The study lasted 12 weeks, and each student was required to write 6 essays according to a pre-defined plan. Data were collected via a pre-test, a post-test exam, an interview and a survey, in line with a mixed method research design. The findings of the study revealed that Revised Bloom Taxonomy based writing instruction increased students' writing scores substantially, improved their motivation and changed their attitudes towards learning the rules of creative writing in a graded format, whereas the gains were not noticeable in the control group. The findings of the study can have some implications for stakeholders in education who are exploring ways to integrate taxonomy into their Academic Writing course curriculum.

Keywords: Revised Bloom's Taxonomy, EFL Learners, Academic Writing

1. Introduction

Multilingualism is becoming increasingly significant in the modern world, and interaction plays a crucial role in the process of language acquisition. In addition to increasing employment opportunities, the ability to speak a foreign language facilitates genuine human connections and a greater understanding of diverse cultures, locations, and ways of life (Yildiz, 2020a; Bagheri et al., 2022; Celik & Yildiz, 2019). It is acknowledged that people's communication skills increase as they become more proficient. The objective of language learners is to attain a native-like level of proficiency and functional competence in the second language. To phrase it another way, to demonstrate proficiency, students must demonstrate both accuracy and fluency (Daskan & Yildiz, 2020). English stands out from other major languages because it is the official or second language in 86 countries, including Canada, Ghana, Singapore, Philippines and Malta.

Additionally, more than 2 billion people have been striving for mastering English because it is used widely in international trade, aviation, media, diplomacy and tourism (Navarro et al., 2022). In the same vein, the dominance of English has been noticed clearly on published works and websites that have the potential to reach all the people on a global scale (Koylu & Tracy, 2022). Considering the influence of English at an unprecedented pace, educational programs have been updated to meet the needs of the society which includes more speakers of English. Correspondingly, teaching English accounts for a major part at educational institutions ranging from kindergartens to universities. Recently, learner autonomy has acquired traction in language education (Yildiz & Yucedal, 2020). It is true that if students can manage their own learning, they can easily attain their full potential. Therefore, for the development of language proficiency, students must assume responsibility for their own education. However, only reading habits and reading abilities do not determine success in a student's education (Yildiz, 2020b). Students must demonstrate proficiency in four fundamental skills to improve their job prospects. One of the major reasons to learn English is to communicate effectively, so they may have the privileges of finding a well-paid job, being promoted in their workplaces, earning more respect, seeking alternatives in other countries, having a stable income and having freedom to switch jobs easily if not satisfied with their current positions. On the other hand, individuals who are not bilingual may not unlock their full potential and progress slower than others in terms of being successful and realizing short term and long-term goals in their lives.

Academic writing has received much attention thanks to the global influence of English in formal settings. It differs from creative and personal writing substantially. The former refers to writing stories, novels, poems, whereas the latter allows the users to use slang, abbreviations, contractions in a welcoming atmosphere. Academic writing requires the learners to stick to well-planned stages, so they can learn the steps of academic writing in formal settings (Kara & Abdulrahman, 2022; Street, 2015). Letters, emails, essays, petitions are common ways to put academic writing into practice. Four types of academic writing are defined: descriptive, analytical, critical and persuasive (Hyland, 2002). Descriptive writing is providing facts as pure as possible, for example, by summarizing the article and visualizing the experiment, while analytical writing is undertaken to forge some logical connections based on some evidence, for instance, as essay on the relationship between smoking and cancer or traffic accidents and mobile phone use while driving. In addition, critical writing urges the writers to compare, contrast and take side with one of the points. For example, the advantages and disadvantages of technology can be emphasized, and a personal point of view can be added in the conclusion part. After that, persuasive writing involves defending a topic with well-established proofs, so the reader can be convinced accordingly. For example, a controversial topic which is euthanasia can be supported or rejected in a coherent format according to the writer's prior plan. As it can be seen clearly, academic writing can encompass all stages of life rather than using it only at a tertiary level. In other words, professional, social and personal aspects of academic writing should not be underestimated to reap the benefits of it during the lifespan of individuals.

Bloom's Taxonomy is a framework to organize learning objectives based on the sequenced cognitive process from basic to advanced. It is a classification paradigm to highlight that cognitive levels should be commenced by remembering prior information and ended by creating novel products (Krathwohl, 2002; Qasrawi & Beni, 2020). Benjamin Samuel Bloom, an American educational psychologist, has coined the term 'Taxonomy' after being the first editor of the book with other 40 authors titled 'The Taxonomy of Educational Objectives: The Classification of Educational Goals' in 1956. Previous taxonomy was based

on the 6 nouns ranging from knowledge to evaluation which were converted into 6 verbs as remembering, understanding, applying, analysing, evaluating and creating by Lorin Anderson and his friends in 2001 (Darwazeh & Branch, 2015). The Revised Bloom's Taxonomy (RBT hereafter) has increased its popularity on a global scale because it underlines the necessity of ordering objectives in a balanced way, so learners' persistence will increase as they progress gradually according to their levels. Additionally, it classifies lower order and higher order thinking skills rationally. The transition from basic to advanced level has also been calculated sensibly, so the effects of taxonomy have been noticed in many countries' education system clearly. Learning outcomes which have been emphasized on the content page of the textbooks display the practical application of taxonomy in various fields as well as linguistics. The Bologna Process, rooted in 1999 for the sake of offering standardized and accountable higher education in European countries, has also contributed significantly to the popularity of taxonomy because it urges European countries to set some standards in higher education with crystal clear learning objectives (Kehm, 2010). Meanwhile RBT is in line with equipping learners with essential 21st century skills such as critical thinking, literacy and numeracy (Abdulrahman, 2022). It can be stated that the taxonomy encompasses many elements in harmony to develop learners' skills gradually in an engaging learning atmosphere.

1.1 Significance of the Study

RBT has encouraged heated debates by stakeholders in education about creating learning objectives based on it or not. Some scholars have argued that it has some drawbacks, while others have asserted that it sets the essential principles to have standardized learning objectives with common verbs in each classification. In addition, some gaps have been noticed in the literature to test the effectiveness of RBT in Academic Writing courses in Iraq context. Although a plethora of studies have been conducted on the effects of RBT at various educational institutions running globally, few studies have been conducted on the effects of RBT on writing proficiency in Iraq context. Thus, this study's main purpose was to raise awareness of educators in Iraq context in terms of adopting a RBT based approach while creating curriculums in all subjects. It is expected that examining the textbooks based on the classification of RBT can pave way for increasing the enthusiasm of the learners as RBT urges the educators to increase the degree of difficulty in a well-planned way rather than forcing them to learn topics which are far beyond their understanding.

1.2 Purpose of the Study and Research Questions

This study was conducted to measure the effects of RBT on EFL students' grades in an Academic course at a tertiary level. With reference to the RBT, students' performance was measured to know whether it affected their writing performance positively or negatively. Additionally, students' satisfaction level was sought meticulously considering pre-test and post-test comments in the interview. Following research questions were composed to examine these points:

- Does Revised Bloom's Taxonomy affect students' writing performance positively?
- Does Revised Bloom's Taxonomy boost students' motivation to write more eagerly?

2. Literature Review

Bloom Taxonomy has been adopted as the basis for creating educational objectives, drafting learning and teaching activities and evaluation since the advent of it in1956 by Benjamin Samuel Bloom and his

collaborators. The primary goal of taxonomy was to initiate constructive brainstorming activities among educators and set standardized learning objectives in a graded format (Gordani, 2010; Kucuk, 2023). The taxonomy has attracted considerable attention globally, so it has been used as a framework to create curriculums based on the given theoretical background. The previous version of Bloom's Taxonomy has been revised by Anderson and Krathwohl in 2001 to meet the needs of curriculum designers, teachers and students more comprehensively. Since that time, RBT has been used officially to construct the curriculums considering the cognitive levels of learners. RBT has certain classifications which are remembering, understanding, applying, analysing, evaluating and creating (Gani, 2023). It can be clearly observed that it emphasizes the value of laying solid background before driving the learners to produce. It other words, it highlights the importance of having a strong foundation at first to meet the needs of higher order thinking skills in the subsequent phase.

Some advocates (Mohammadi, 2015; Pratiwi, 2015; Mizbani, 2020) and opponents (Sonmez, 2019; Muhayimana et al., 2022) of RBT have been prevalent with their genuine opinions to justify. For instance, Ulum (2022) elucidates that RBT facilitates learning and teaching process in reading classes because it does not force the learners and teachers to figure out and teach rapidly. He also asserts that progressing with a well-planned curriculum increases students' engagement, so their self-confidence improves correspondingly. In the same vein, Mohammadi et al. (2015) points out that RBT increases the chance to ask relevant and coherent questions in the exam because it underlines the specific verbs to shape the questions in each level. They reiterate that it can be inevitable to ask questions beyond students' capabilities if RBT has been disregarded. Likewise, Mizbani and Chalak (2017) state that analysing speaking and listening textbooks through the lens of RBT can help the educators to figure out the quality of these textbooks. They argue that some books have only covered lower order thinking skills, while others have offered the activities in a mixed format rather than increasing the degree of difficulty in a sequenced way. After that, Krathwohl (2002) postulates that RBT alleviates the pressure on students in writing classes because it suggests the educators to teach writing topics from easy to the difficult format. Additionally, Ahmad and Hussin (2017) attest that teaching grammar through online games can boost students' grammar performance dramatically if games are designed according to the principles of RBT. They elucidate that questions should be asked in a balanced way rather than asking an easy and a hard question consecutively. Afterwards, Kingsley and Grabner (2018) state that games allow the learners to expand their vocabulary knowledge gradually if learning outcomes are formed considering RBT. In addition, Fitriani and Kirana (2022) put forward the idea that the improvement in pronunciation increases if the activities to develop students' pronunciation skills are arranged according to RBT. However, some drawbacks of RBT are also expressed by some scholars. To name a few, Gani et al. (2023) assert that drawing some distinctive lines in each classification are deceptive in RBT. They also attest that the verbs in each classification should be thoroughly discussed to increase the efficiency of RBT. Similarly, RBT is put into practice based on the cognitive levels of learners. However, it differs greatly to be at kindergarten and university, so simplifying the verbs in each level for younger students should be considered which has been ignored in many EFL textbooks (Muhayimana et al., 2022).

A growing number of publications have been released on the effects of RBT in EFL and ESL settings. To name a few, Plack et al. (2007) conducted a comprehensive study on medical students which unleashed that RBT based writing instruction promoted students' learning in terms of writing and developed their

critical thinking skills substantially. Likewise, Baghaei et al. (2020) carried out another notable study to measure the effects of RBT on TOEFL reading and listening success rates which revealed that RBT has the potential to increase students' scores dramatically if all steps are followed systematically. Likewise, Gordani (2010) found that RBT enhanced students' speaking performance thanks to designing activities from basic to advanced level. He also found that students' self-confidence was restored after arranging speaking questions based on the principles of RBT. Additionally, Wijanarko et al. (2021) point out that RBT based grammar instruction yielded better results at a tertiary level because students progressed gradually, and they were equipped with necessary strategies to solve challenging questions after laying a strong foundation in earlier stages. Subsequently, Ward (2011) states that RBT enriched instruction helped university students to improve grammatical accuracy and expand word power. On the other hand, some studies did not find a positive correlation between RBT and improving linguistic competence of the learners. For instance, Benjelloun et al. (2019) unleashed that RBT's effect can be quite low if students are not introduced with it until a certain age. They reiterated that the rate of success fell sharply once the students were introduced with RBT for the first time at a tertiary level. Similarly, Eber and Parker (2007) uncovered that RBT cannot ensure that students' critical thinking skills will develop because the ultimate goal in many institutions is to recall memorized information rather than equipping them with higher order thinking skills.

3. Methodology

3.1 Research Design and Instruments

A mixed method research design was adopted in this study which encompassed a survey, an interview and two exams. The survey was integrated into the study to unleash students' opinions on the weaknesses and strengths of RBT enriched instruction. Likewise, the interview was carried out to have in-depth knowledge about students' genuine perspectives on the effectiveness of RBT enriched instruction. Similarly, writing exams were held to compare students' pre-test results with post-test ones. Students writing performance prior to study was considered as pre-test to be compared with their writing marks, earned at the end of the study as post-test. In the final phase, all instruments were cross-checked whether they complied with each other (Fetters, 2013).

3.2 Participants, Sampling and Setting

The population of this study included all students who received quality education at TISHK International University (TIU hereafter) Language Preparatory School in 2021-2022 Academic Year. The total number was 100 who completed their intensive language learning period in an English Medium Instruction atmosphere. TIU has been chosen on purpose because students have been encouraged to communicate in English as long as they keep their education. Additionally, diversity, welcoming students from different countries, was another compelling reason to conduct the study at this private university. In addition, the university, welcoming students in Erbil, Iraq since 2008, has been renowned as the best university in terms of qualifications of the academics and the number of scientific publications (Webometrics, 2022). Upon choosing the population, systematic sampling method was used to determine the sample students. To illustrate, each student was ordered alphabetically at first. Next, 10th student was chosen randomly. Other students were chosen based on the pre-defined interval. 40 students, 17 female 23 male ones, were chosen

from the population based on the principles of systematic sampling method. Berndt (2020) asserts that systematic sampling offers several benefits for the researcher, for example, it can be implemented instantly thanks to evenly distributed sample. Once students were chosen, their consent forms were signed. Some students who had some excuses were removed, and new members were chosen from the population accordingly.

3.3 Procedure

3.3.1 Description of Academic Writing Course

Academic Writing course has been offered by professional and experienced lecturers at TIU Language Preparatory School. The lesson continues 9 months with a cycle of 3 lessons weekly. The university administration puts greater emphasis on Academic Writing, so the course has been designed and monitored by relevant authorities at university periodically. In addition, the selection of topics has been conducted by the committee, so the order of the topics is expected to be as engaging as possible. Subsequently, offering constructive feedback is of greatest importance which has been monitored closely by the administration. After that, integrating technology into classes for educational purposes has been encouraged by the administration, so students write their works on the paper within given time, take the screenshot of their works and forward to the lecturer's WhatsApp account to be displayed by the smartboard. Once student's work has been highlighted, peer-learning has been activated. Additionally, the lecturer can highlight common mistakes and give some tips to eliminate them in the following endeavours. If a student has various mistakes in terms of grammar, punctuation, spelling, word choice or sequence of tenses, s/he is encouraged to write one more time. Thus, s/he can eliminate the mistakes and write more accurately in the weeks to come. When the academic year is over, the students are able to learn to write creatively by over 20 essays in various topics. Additionally, students address a brief speech on their essays to enhance their speaking performance as well. When writing activities are enriched with brief presentations, students' motivation and self-confidence increase accordingly because they apply their knowledge into practical activities in the conversation. The ultimate goal of taking Academic Writing Course during the year is to teach basics of creative writing in a formal format which will be essential in their departments in the following years.

3.3.2 Data Collection Process

Data collection process lasted 12 weeks in the spring semester of 2021-2022 Academic Year. Prior to data collection, the students were placed based on their groups to have some background information about the whole study and ask questions in their minds. This orientation period was enriched with some graphs, paragraphs, essays, videos, tutorials. Additionally, the cycle of the lesson, grading criteria, feedback policy were introduced with clear examples. In the subsequent phase, RBT were introduced to all participants to have some preliminary ideas about it and its role in language teaching and learning process. Some sample written works were shown about each stage of RBT, so students had the privilege to illustrate the concept in their minds. Once the orientation period was finalized, students were directed to their classes according to their groups. The type of instruction differed significantly in control and experimental group although both groups were encouraged to write on 6 topics. To illustrate, control group students studied in a traditional format through which their writing instruction progressed in a randomized way. However,

experimental group students' writing topics were arranged according to the classification of RBT. In other words, relatively easy and challenging writing topics were mixed randomly in control group, whereas it was graded from basic to advanced level in experimental group. Each student was required to complete one writing task biweekly, so 6 topics were explored in detail during the study.

The conduct of the lessons in both groups was clearly illustrated in Figure 1.
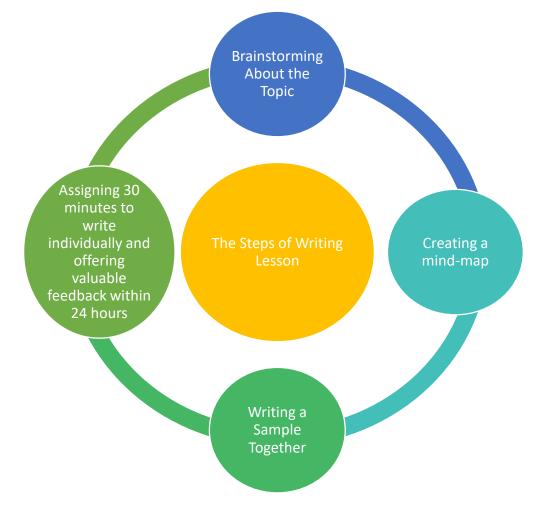

Figure 1: Illustration of activities to cover writing lessons based on RBT

The conduct of the lesson did not change except the sequence of activities. Control group students wrote their written works in a randomized way. However, the degree of difficulty was arranged in line with RBT in experimental group. The rationale for arranging the degree of difficulty in experimental group was laying a background in writing before proceeding to challenging essay writing tasks. On the other hand, control group students wrote their tasks according to the order of activities, set by the committee.

Table 1 visualized the themes covered in control and experimental group respectively.

Control Group	Writing Topics	Experimental Group
Introducing Yourself		Listing Key Stages in Your Biography
Daily Routine		Comparing life in the past with present time
Online versus Traditional Education		Illustrating Mobile Phone Ownership
Strengths and Weaknesses		Explaining the causes of different pollutions
Reasons to Go Online		Reviewing Pros and Cons of Robots
Hobbies		Recording Their Voices by Reading Their Essays

When Table 1 was analysed, it was figured out that writing topics were different in groups. For example, the topics were not progressed smoothly from easy to difficult in control group, whereas the progress was balanced from easy to difficult in experimental group. Another striking point to be emphasized was that control group topics were related to writing passively, while the topics were enriched with graphs and recordings in experimental group. In addition, the writing topics seem general in control group, while it was formed in a formal way in experimental group with certain verbs of RBT.

4. Findings

The findings of the study were ordered as survey, independent samples t test, paired samples t test and interview. They were explored meticulously below:

4.1 The Analysis of the Survey

Table 2: Positive Sides of RBT

	Categories	Frequency	%
1	Easy to Follow	35	87.5
2	Fosters Critical Thinking Skills	37	92.5
3	Allows Creativity	38	95
4	Reduces Boredom	33	82.5
5	Allows Collaboration	28	70
6	Encourages the usage of formal English	39	97.5
7	Universal	40	100

Table 2 visualized participants' positive opinions on RBT. The revealed data show that RBT enriched instruction is universal, appreciates the usage of formal English, fosters creativity, develop critical thinking skills and easily trackable. Additionally, it alleviates boredom and encourages collaborative activities although their percentages were not as noticeable as others. It can be stated that RBT enriched instruction has different dimensions to improve students' levels as well as developing their writing skills in a graded format.

Table 3: Some Weaknesses of RBT

	Categories	Frequency	%
1	Overwhelming	5	12.5
2	Unrealistic	4	10
3	Complicated	6	15
4	Rigid Plan	7	17.5
5	Unable to consider individual differences	12	30
6	Difficult to put into practice in daily life	15	37.5

Some drawbacks of RBT enriched instruction were also expressed by the participants in Table 3. For instance, they reiterated that the words chosen in each classification were not used frequently in daily life. In addition, it did not encourage differentiated learning. Also, the classification was so rigid which could not be flexible. After that, some stages were complicated to understand. Additionally, the load of activities could be overwhelming. Subsequently, some tasks to have been completed was unrealistic. However, the percentage of these weaknesses was far less than its strengths in the previous table. These figures show that the advantages of RBT outweigh the disadvantages.

4.2 The Analysis of the Writing Exams

Independent samples t test was run to compare students' writing marks and make certain interpretations. Independent samples t test analysis was illustrated in Table 4.

Table 4: Independent Samples T Test analysis

Variables	Groups	N	Mean	SD	t	df	Sig
Pre-test	Control	20	52.25	13.905			
Pre-test	Experimental	20	52.75	16.016	-.105	38	.917
Post-test	Control	20	62.25	11.295			
Post-test	Experimental	20	84.25	13.206	-5.662	38	.000

Note. $P<0.05$

Based on the pre-test values in Table 4, there was no statistically significant difference between the groups because the value of .917 was greater than 0.05. Correspondingly, there was no statistically significant difference between the mean scores of each group, which were 52.25 for the control group and 52.75 for the experimental group respectively. In the initial stage, no statistically significant difference was detected. When the p value was analyzed in terms of post-test results, however, it was found to be 0.000, which is highly significant. Based on post-test results, it can be confirmed that the experimental group outperformed the control group. However, the improvement of the control group was not as notable as that of the experimental group. Apart from p-value and mean scores, computed test statistic, degrees of freedom and standard deviation values were illustrated clearly to make certain interpretations accordingly.

Paired sample s t test was activated to measure the differences in each group separately. Paired samples t test analysis in control group was illustrated in Table 5.

Table 5: Paired Samples T Test Analysis in control group

Paired Samples Test								
	Paired Differences					t	df	
				95% Confidence Interval of the Difference				
	Mean	Std. Deviation	Std. Error Mean	Lower	Upper			Sig. (2-tailed)
Control Pre- test Post-test	-10.000	17.014	3.804	-17.963	-2.037	-2.629	19	.017

Based on the gathered values in control group in Table 5, p value was recorded as .017 which was greater than 0.05, so no noticeable difference was observed. Additionally, mean score, standard deviation, standard error mean, computed test statistic and degrees of freedom were recorded as -10.000, 17.014, 3.804, 2.629 and 19 respectively. These data were compatible with the results of independent samples t test which unleashed that the rising trend in control group was not as noticeable as experimental group. Paired samples t test analysis in experimental group was illustrated in Table 6.

Table 6: Paired Samples T Test Analysis in experimental group

Paired Samples Test									
		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	S (2-tailed)
					Lower	Upper			
Experimental	Pre-test Post-test	-31.500	22.070	4.935	-41.829	-21.171	-6.383	19	.000

Table 6 demonstrated that the same procedure was applied to the experimental group. The p-value was determined to be .000, which was less than 0.05. There was a significant difference between the experimental group's pre-test and post-test, according to the data collected. In addition, the mean score, standard deviation, mean standard error, computed test statistic, and degrees of freedom were recorded to be -31.5, 22.070, 4.93, -6.383, and 19 respectively. These numbers also corroborate the results of the independent samples t-test, which revealed a significant difference between the experimental group.

4.3 Interview

Students' opinions on RBT enriched instruction were also consistent with other instruments. The detailed perspectives of some examples were given below:

I had the fear of writing prior to this study because I thought that I would be ridiculed or criticized harshly for my mistakes. However, teaching style of the lecturer captured my attention in this study. We brainstormed, drew mind maps, wrote sample paragraphs or essays collaboratively before writing individually. These activities reduced my anxiety towards writing. In addition, the topics were arranged according to our levels. We wrote easier topics at first to know certain rules of academic writing. Later, we made an attempt to write challenging essays. Likewise, given verbs according to RBT guided us to write more formally and accurately. I recommend that RBT be employed in all writing courses to increase the gains of the lessons substantially. (St 6)

RBT helped me to increase my knowledge in academic writing. I learnt how to write in a simple way and expand my reasons logically through RBT. This study helped me to evaluate points from different point of views, synthesize some pieces and come to compelling interpretations accordingly. In addition, I changed my daily English verbs with formal ones according to the given list of RBT for each classification. After that, recording our voices increased our self-confidence and improved our pronunciation. I read the same essay several times before recording my voice, so it increased my chance to store the information in the long term memory. I remember a lot of details clearly about our written works even today. All in all, RBT enriched instruction was so fruitful for me. (St 9)

I have some friends from different countries to chat and improve my English. When we learnt RBT, I discussed it with them because RBT has the reflections in many countries' education system. While we were discussing, we brainstormed and expanded our knowledge dramatically. Additionally, we talked about the influence of RBT in other subjects. We noticed that the objectives and questions were arranged according to the regulation of RBT in other subjects. When we found many connections between different subjects, our enthusiasm towards RBT increased. We developed our writing skills gradually. I am grateful that I have been introduced with RBT in this study. (St 13)

This study helped me to develop good habits towards studying and becoming a proficient writer gradually. We participated in different activities to increase our learning in an engaging way. For example, we learned common verbs of each category in an interactive way. Additionally, we need to think critically to write persuasive essays. Moreover, we uncovered our creativity because we had to write our works in various topics. After that, we collaborated with our friends while writing together and offering peer-feedback for our classmates. Afterwards, we learned the rules of formal English which will pave way for Academic English. Finally, we found some common grounds with our friends in different countries by discussing the positive and negative sides of RBT because it has been taught in many institutions around the world regardless of being in Europe or Asia. (St 17)

I took the lessons in a traditional format in contrast to my friends who received RBT enriched instruction. Although the lessons were engaging at first, my motivation faded after a while. Some of the activities were so challenging, while others were so easy. I could not find the balance. If my activities had been balanced like my friends, I would not have been bored so easily. Another point to be mentioned was that I spent much time while composing my ideas particularly choosing verbs to convey the meaning, but my friends had a list of verbs to be employed in each topic which really helped them to navigate and save time while writing. I wish I had joined the study in the other group where I could progress rapidly. (St 26)

5. Discussion

This study sought the effects of RBT enriched instruction on students' writing score through exams, a survey and an interview. Independent samples t test and paired samples t test showed that the ones who received RBT based writing instruction outperformed the ones who received traditional writing instruction. This finding was in line with Kara and Abdulrahman's (2022) study which revealed that teaching certain verbs in a graded way helps the learners to lay the background and increase their writing scores gradually. Likewise, Forehand (2005) asserts that RBT offers several advantages for both learners and teachers because its ultimate goal is to teach in a balanced way without demotivating the learners. Another essential point to be considered via the survey was that students appreciated collaborative activities in the writing and feedback process respectively. Gielen et al. (2010) state that peer feedback and collaborative writing can be used hand in hand with RBT because students' learning rate may rise substantially while offering feedback for their friends and writing as a pair work activity. Subsequently, a number of students reiterated that RBT enriched writing instruction increased their critical thinking skill which is one of the most essential 21st century skills. Setyowati et al. (2022) point out that RBT sets the framework to foster critical thinking skills because it is a must to evaluate, synthesize and come to logical decision in line with taxonomy. The findings of the interview shed light on some essential points as well. To illustrate, the students postulated that being creative was the key to increasing their success in this study which was in

line with Yucedal et al.'s (2022) study. They elucidate that RBT urges the learners to be as creative as possible because they are required to write about different topics in a graded format. In addition, the students stated that they shared their knowledge on RBT with their friends in other countries because it is a global phenomenon to integrate RBT into curriculums. Ulum (2022) attests that RBT spans the whole world except some countries because it helps the stakeholders of education to plan their objectives in a graded way, so students' boredom and dissatisfaction rate can reduce dramatically. Afterwards, the students asserted that they figured out a lot of verbs to use in a formal context, so they can have ample opportunity to use English for Academic Purposes in the long run. Nkhoma et al. (2017) state that RBT sharpens learners' skills to write more academically because certain verbs given in RBT are parts of essential verbs to be used frequently formally. Once all data were cross-checked, it was observed that they were harmonious with each other.

6. Conclusion and Recommendations

In this study, through a mixed method research design, it was aimed to measure the effects of RBT enriched instruction on EFL learner's scores in and Academic Writing course. To achieve the purpose of the study, 40 freshman students were chosen as the participants to be exposed to traditional or RBT enriched instruction respectively. Three primary research instruments were employed which were written exams, a survey and an interview. Upon analysing the difference between pre-test and post-test, it was figured out that RBT enriched instruction enhanced experimental group students' writing performance significantly. However, the difference in control group was not as significant as experimental group. Likewise, the findings in the survey revealed that RBT enriched instruction was easily understood, user-friendly, collaborative. Additionally, it allowed the lecturer to foster students' critical thinking skills in a balanced way. Subsequently, the popularity of RBT around the world helped students to increase their enthusiasm towards it. Apart from exams and the survey, the interview unleashed similar points. The participants stated that increasing the degree of difficulty gradually increased their motivation. Additionally, some students reiterated that they overcame their writing anxiety. After that, some students stated that writing collaboratively, getting written corrective feedback, displaying their works on the smart board for peer-learning and internalizing key verbs for each classification were distinguishing qualities of this study.

Some recommendations can be made to increase the validity and reliability of the results in future studies. 40 students were included in this study which can be increased. Additionally, only language preparatory school students who were studying at a private university in Erbil, Iraq joined this study which can be expanded with other stages to be more representative. Additionally, only students at a tertiary level participated in this study which can be extended with high school or secondary school students. Subsequently, the number of male students was higher than female ones which can be equalized in future studies, so each gender can be measured fairly. Finally, only writing skill has been sought in this study which can encompass other skills in future studies.

References

Abdulrahman, S. A. (2022). The effects of time management workshops on studentsacademic success: A study on foundation english students at Tishk International University. *Revista Amazonia Investiga*, *11*(58), 112-123.

Ahmad, T. S., & Hussin, A. A. (2017). Application of the Bloom's taxonomy in online instructional games. *International Journal of Academic Research in Business and Social Sciences, 7*(4), 1009-1020.

Baghaei, S., Bagheri, M. S., & Yamini, M. (2020). Analysis of IELTS and TOEFL reading and listening tests in terms of revised bloom's taxonomy. *Cogent Education*, *7*(1), 1720939.

Bagheri Nevisi, R., Khademian, J., & Amirian, S. M. R. (2022). Co-Teaching in an EFL Writing Class: A Mixed-Methods Probe into its Effects and Students' Perceptions. *Two Quarterly Journal of English Language Teaching and Learning University of Tabriz*, *14*(30), 57-74.

Benjelloun, M., & El Kirat El Allame, Y. (2019). Bloom's taxonomy and Moroccan children's vocabulary and critical thinking skills development. *Arab World English Journal (AWEJ) Volume*, *10*.

Berndt, A. E. (2020). Sampling methods. *Journal of Human Lactation*, *36*(2), 224-226.

Celik, B., & Yildiz, Y. (2019). The role of foreign language culture on teaching the language and learner motivation. *International Journal of Social Sciences & Educational Studies*, *5*(4), 150-161.

Darwazeh, A. N., & Branch, R. M. (2015). A revision to the revised Bloom's taxonomy. *2015 Annual Proceedings–Indianapolis*, *2*, 220-225.

Daskan, A., & Yildiz, Y. (2020). A simultaneous dual focus on form and meaning to enhance language learning. *International Journal of Social Sciences & Educational Studies*, *7*(4), 59-63.

Eber, P. A., & Parker, T. S. (2007). Assessing Student Learning: Applying Bloom's Taxonomy. *Human service education*, *27*(1).

Fetters, M. D., Curry, L. A., & Creswell, J. W. (2013). Achieving integration in mixed methods designs—principles and practices. *Health services research*, *48*(6), 2134-2156.

Fitriani, D. H., & Kirana, D. P. (2022). Higher Order Thinking Skill (HOTS) in English Language Textbook in Senior High School. *International Journal of Research on English Teaching and Applied Linguistics*, *2*(2), 55-66.

Forehand, M. (2005). Bloom's taxonomy: Original and revised. *Emerging perspectives on learning, teaching, and technology*, *8*, 41-44.

Gani, M. O., Ayyasamy, R. K., Sangodiah, A., & Fui, Y. T. (2023). Bloom's Taxonomy-based exam question classification: The outcome of CNN and optimal pre-trained word embedding technique. *Education and Information Technologies*, 1-22.

Gielen, S., Peeters, E., Dochy, F., Onghena, P., & Struyven, K. (2010). Improving the effectiveness of peer feedback for learning. *Learning and instruction*, *20*(4), 304-315.

Gordani, Y. (2010). An analysis of English textbooks used at Iranian guidance schools in terms of Bloom's taxonomy. *Journal of Asia TEFL*, *7*(2).

Hyland, K. (2002). What do they mean? Questions in academic writing. *Text & Talk*, *22*(4), 529-557.

Kara, S., & Abdulrahman, S. A. (2022). The Effects of Product Approach on Language Preparatory School StudentsWriting Score in an Academic Writing Course. *Canadian Journal of Language and Literature Studies*, *2*(4), 45-65.

Kehm, B. M. (2010). Quality in European higher education: The influence of the Bologna Process. *Change: The magazine of higher learning*, *42*(3), 40-46.

Kingsley, T. L., & Grabner-Hagen, M. M. (2018). Vocabulary by gamification. *The Reading Teacher*, *71*(5), 545-555.

Köylü, Z., & Tracy-Ventura, N. (2022). Learning English in today's global world: A comparative study of at home, anglophone, and lingua franca study abroad. *Studies in Second Language Acquisition*, *44*(5), 1330-1355.

Krathwohl, D. R. (2002). A revision of Bloom's taxonomy: An overview. *Theory into practice*, *41*(4), 212-218.

Küçük, T. (2023). Technology Integrated Teaching and Its Positive and Negative Impacts on Education. *International Journal of Social Sciences & Educational Studies*, *10*(1), 46.

Mizbani, M., & Chalak, A. (2017). Analyzing listening and speaking activities of Iranian EFL textbook Prospect 3 through Bloom's Revised Taxonomy. *Advances in Language and Literary Studies*, *8*(3), 38-43.

Mizbani, M., Salehi, H., & Tabatabaei, O. (2020). Content evaluation of Iranian EFL textbook vision 1 based on Bloom's Revised Taxonomy of cognitive domain. *International Journal of Foreign Language Teaching and Research*, *8*(29), 11-24.

Mohammadi, E., Kiany, G. R., Samar, R. G., & Akbari, R. (2015). Appraising pre-service EFL teachers' assessment in language testing course using revised Bloom's taxonomy. *International Journal of Applied Linguistics and English Literature*, *4*(4), 8-20.

Muhayimana, T., Kwizera, L., & Nyirahabimana, M. R. (2022). Using Bloom's taxonomy to evaluate the cognitive levels of Primary Leaving English Exam questions in Rwandan schools. *Curriculum Perspectives*, *42*(1), 51-63.

Navarro, F., Lillis, T., Donahue, T., Curry, M. J., Reyes, N. Á., Gustafsson, M., ... & Motta-Roth, D. (2022). Rethinking English as a lingua franca in scientific-academic contexts: A position statement. *Journal of English for Research Publication Purposes*, *3*(1), 143-153.

Nkhoma, M. Z., Lam, T. K., Sriratanaviriyakul, N., Richardson, J., Kam, B., & Lau, K. H. (2017). Unpacking the revised Bloom's taxonomy: developing case-based learning activities. *Education+ Training*.

Plack, M. M., Driscoll, M., Marquez, M., Cuppernull, L., Maring, J., & Greenberg, L. (2007). Assessing reflective writing on a pediatric clerkship by using a modified Bloom's taxonomy. *Ambulatory Pediatrics*, *7*(4), 285-291.

Pratiwi, N. W., Dewi, N. S., & Paramartha, A. Y. (2019). The reflection of HOTS in EFL teachers' summative assessment. *Journal of Education Research and Evaluation*, *3*(3), 127-133.

Qasrawi, R., & Beni Abdelrahman, A. (2020). The Higher and Lower-Order Thinking Skills (HOTS and LOTS) in Unlock English Textbooks (1st and 2nd Editions) Based on Bloom's Taxonomy: An Analysis Study. *International Online Journal of Education and Teaching*, *7*(3), 744-758.

Setyowati, Y., Susanto, S., & Munir, A. (2022). Critical Thinking within the Context of the Revised Bloom's Taxonomy in Written Language Tests. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, *5*(2).

Sönmez, H. (2019). An examination of the revised Bloom's taxonomy as a model in the curriculum design process. *Researcher*, *7*(1), 106-148.

Street, B. V. (2015). Academic Writing: Theory and Practice. *Journal of Educational Issues*, *1*(2), 110-116.

Ulum, Ö. G. (2022). Is the revised Bloom's Taxonomy revisited in the EFL/ESL reading textbooks?. *OPUS Journal of Society Research*, *19*(45), 170-177.

Ward, D. (2011). Expanding the reference vocabulary: A methodology for applying Bloom's taxonomy to increase instruction in the reference interview. *Reference Services Review*.

Webometrics (2022), "Ranking Web of Universities" [Accessed on January 14, 2022] https://www.webometrics.info/en/current_edition.

Wijanarko, B. D., Heryadi, Y., Toba, H., & Budiharto, W. (2021). Question generation model based on key-phrase, context-free grammar, and Bloom's taxonomy. *Education and Information Technologies*, *26*, 2207-2223.

Yildiz, Y. (2020a). Task-Based language teaching: An approach in the spotlight to propel language learning forward. *International Journal of Social Sciences & Educational Studies*, *7*(1), 72-77.

Yildiz, Y. (2020b). Reading habit and its role on students' academic success at language preparatory school: A research on Tishk International University preparatory school students. *Amazonia Investiga*, *9*(27), 189-194.

Yildiz, Y., & Yucedal, H. M. (2020). Learner autonomy: A central theme in language learning. *International Journal of Social Sciences & Educational Studies*, *7*(3), 208-212.

Yucedal, H. M., Abdulrahman, S. A., & Kara, S. (2022). Process-Genre Approach in Teaching Writing to Language Preparatory School Students at a Private University in Iraq. *Canadian Journal of Educational and Social Studies*, *2*(5), 28-46.