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### ASSESSING PRODUCTIVE VOCABULARY KNOWLEDGE WITH LEX30: A MULTI- DIMENSIONAL APPROACH TO LEXICAL COMPETENCE

#### ABSTRACT

This article examines the concept of lexical competence and its multifaceted dimensions as various scholars propose. It emphasizes the significance of lexical competence in language acquisition, highlighting that it encompasses more than merely knowing the definition of a word; it involves utilizing words effectively and appropriately in diverse contexts, particularly in productive skills, such as writing and speaking.

One of the central challenges discussed in this article is accurately assessing and identifying the productive level of vocabulary knowledge among learners using innovative tools within the teaching process. While traditional assessment methods and test forms are suitable for evaluating passive or receptive lexical knowledge, they may not adequately gauge learners' ability to actively use words in their communication. The author of this article suggested employing innovative tools such as Lex30 to assess productive lexical knowledge. These tools are purported to have a positive impact on the evaluation of learners' ability to utilize vocabulary in real-world scenarios effectively.

The findings of the study presented in this article have implications for the teaching process in higher education settings. By incorporating innovative assessment tools such as Lex30, educators can better evaluate and enhance students' productive lexical competence, ultimately improving their overall language proficiency. These tools assist in assessing vocabulary frequency, size, and level.

Accordingly, the results obtained from the

### SAMARADOR SO'Z BOYLIIGIGA OID BILIMLARNI LEX30 YORDAMIDA BAHOLASH: LEKSIK KOMPETENSIYAGA KO'P O'LCHOVLI YONDASHUV

#### ANNOTATSIYA

Ushbu maqolada jahon olimlari tomonidan taklif etilgan leksik kompetensiya tushunchasi hamda uning ko'pqirrali jihatlari atroficha o'rganilgan va tahlil qilingan. Jumladan, maqolada xorijiy tillarni o'rganishda va undagi kommunikativ kompetensiyani rivojlantirishda leksik kompetensiyaning ahamiyati ta'kidlanib, so'zning tarjimasi, uning ma'no-mazmuni va ta'riflarini bilishdan ko'ra, uning ko'proq narsalarni qamrab olishi bayon qilingan; zero u turli kontekstlarda, xususan, yozish va gapirish kabi muhim ko'nikmalarda so'zlardan samarali va o'rinli foydalanish, o'z navbatida, sinonim va antonimlarni to'g'ri qo'llay olishni o'z ichiga oladi.

Maqolada ko'rib chiqiladigan muhim masalalardan biri – o'qitish jarayonida innovatsion vositalardan foydalangan holda talabalar lug'at boyligining samarali darajasini to'g'ri baholash va aniqlashdir. Binobarin, an'anaviy baholash usullari va test shakllari passiv yoki faol leksik bilimlarni baholash uchun mos kelsa-da, ular talabalarning o'z muloqotida so'zlardan faol foydalanish qobiliyatini yetarli darajada baholay olmaydi. Maqola muallifi samarador leksik bilimlarni baholash uchun Lex30 innovatsion vositasidan foydalanish g'oyasini ilgari suradi. Mazkur vosita talabalarning real ssenariylarda lug'atdan samarali foydalanish qobiliyatini baholashga ijobiy ta'sir ko'rsatadi.

Maqolada keltirilgan tadqiqot natijalari OTMlaridagi o'qitish jarayoniga Lex30

experimental component demonstrated that Lex30 facilitates the improvement of lexical knowledge among participants with highly reasonable scores. In the post-interview, all students provided positive feedback regarding the implementation of such online assessment tools in the foreign language teaching processes.

**Key words:** lexical competence, lexeme, productive vocabulary level, receptive level, lexical dimension, semanticization, online assessment tools, productive vocabulary knowledge, PVL, Lex30.

innovatsion vositasi ijobiy ta'sir ko'rsatishi mumkinligini tasdiqlaydi. Lex30 kabi innovatsion baholash vositalari orqali o'qituvchilar talabalar leksik kompetensiyalarini yaxshiroq baholashlari va rivojlantirishlari mumkin, natijada ularning umumiy til ko'nikmalari sezilarli darajada ijobiy o'zgarishlarni namoyon qiladi. Ayniqsa, bunday vositalar lug'atning chastotasi, hajmi va darajasini aniq hamda samarali baholashda qo'l keladi.

Ekspirimental jarayon natijalari shuni ko'rsatdiki, Lex30 innovatsion vositasi tajribasini ishtirokchilari, ya'ni talabalarning leksik bilimlarini juda maqbul ko'rsatkichlar bilan yaxshilashga xizmat qildi. O'z navbatida, suhbatdan keyingi intervyu davomida barcha talabalar chet tilini o'rganish jarayonida bu kabi onlayn baholash vositalaridan foydalanishga nisbatan ijobiy munosabat bildirdi.

**Kalit so'zlar:** leksik kompetensiya, leksema, samarador lug'at darajasi, retseptiv daraja, leksik o'lchov, semantizatsiya, onlayn baholash vositalari, mahsuldor lug'at bilimi, PVL, Lex30.

## INTRODUCTION

Communication, understanding, and general language performance hinge substantially on lexical competence, which is an indispensable factor in language ability. This pertains to an individual's lexical knowledge and proficiency in a particular language. The purpose of this literature review is to investigate the idea of lexical competence, including its theoretical underpinnings, methods of assessment, developmental features, and relevance in language learning and classroom instruction.

Various theoretical frameworks have been proposed to conceptualize lexical competence. One prominent framework primarily developed by M. Tomasello is the usage-based approach, which suggests that lexical competence develops through exposure to language in meaningful contexts and usage patterns [Tomasello, 2003]. Another framework, proposed by J. Aitchison, emphasizes mental lexicon and vocabulary organization in the brain [Aitchison, 2012]. Additionally, theories, such as connectionism and cognitive linguistics, provide valuable insights into how words are stored, retrieved, and processed in the mind. As the conception of words is related to the mind and brain, we should consider these aspects while teaching L2.

Scientists are still confused about how many words are sufficient for fluent target language users. I. Nation suggested comprehending 6000-7000 various word families is a necessity for understanding spoken English and 8000-9000-word families are adequate for recognizing written contexts [Nation, 2006; 59]. Of course, these are approximate numbers, but concrete numbers are needed to understand the standard size, level, and depth of vocabulary knowledge. Previous studies [Ellis, 2005; Schmitt, 2008] have predominantly focused on intentional teaching strategies in language instruction, emphasizing deliberate and structured approaches to

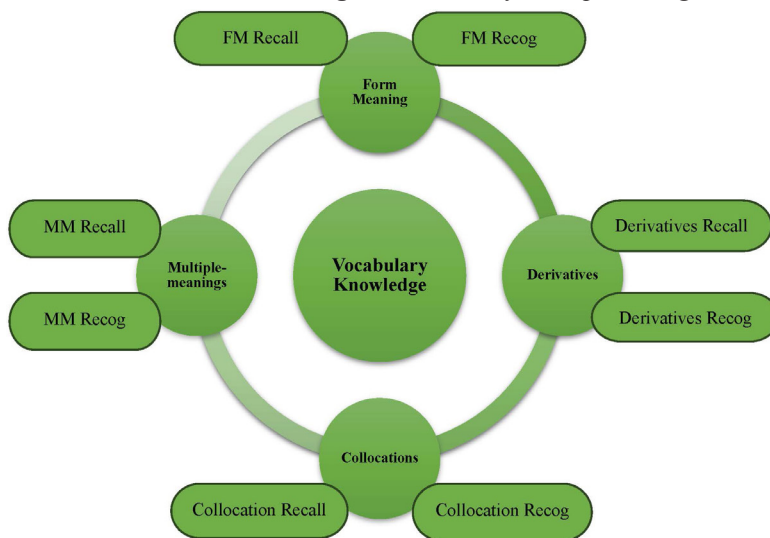
vocabulary and grammar acquisition. Advanced English learners have an “average receptive vocabulary knowledge of 11,000 words” [Nation, 2013; 6]. One must bear in mind that words in such large quantities cannot be learned solely through explicit vocabulary instruction [Teng, 2019]. It proves that explicit instructions like “Look through the words given below. Translating into the native language and learning by heart cannot give us the expected result in the technological era. Words may be acquired incidentally in an authentic context outside the classroom and may form a learner’s lexical repertoire. For that reason, methodologists of FLT have created the term “incidental vocabulary acquisition”, which refers to the perception of a word without the conscious intention to commit the word to memory [Hulstijn, 2013]. B.Kachru’s model of “World Englishes” [Kachru, 1986] is a foundational framework. B.Kachru, a prominent linguist, introduced a three-circle model to describe the spread and function of English worldwide. He divided world English into three circles: inner, outer, and expanding. The inner circle includes geographical locations where English is the native language. Authentic materials are everywhere, and learners do not have any problems learning a language in a real atmosphere. The outer circle is not an exception, as the English language is considered a lingua franca and is used equally with their native language. However, the third (expanding) circle in B.Kachru’s model [Kachru, 1986] may not come across such materials and may not have the opportunity to improve lexical knowledge in such a way. Furthermore, according to N.Schmidt “the fresh vocabulary that can be spontaneously obtained by learners of the English language as a Foreign Language (EFL) is limited”.

Consequently, F.Teng recommended blending these two approaches to help learners acquire more vocabulary knowledge. However, recent studies conducted by several researchers, including F.Teng, proved that combining incidental learning and explicit vocabulary exercises improves the “learner’s partial lexical knowledge” [Teng, 2015; 4]. This means that the productivity of vocabulary knowledge of target-language learners may decrease significantly. Aiming for the productivity of lexical knowledge, scientists have been investing all their efforts in implementing advanced technologies for foreign language teaching and learning processes both outside and inside the learning atmosphere [Teng, 2019]. However, size and use “most likely do not grow in the same ways”. “P.Meara’s “many misinterpretations” stem from his false presumption that size and use do rise in comparable ways” [Laufer, 2005].

Lexical competence is the cornerstone of the FLT. It enables language learners to understand and make speech production more effective, facilitating communication and language acquisition. Educators employ various instructional techniques such as vocabulary instruction, reading comprehension activities, and vocabulary expansion exercises to enhance learners’ lexical competence. Scientists have suggested implementing modeling in the foreign language teaching process [Bezukladnikov et al., 2013], and various models have been constructed to form lexical competence. Language learning, including lexical competence, is a cognitive process, and the researcher used a communicative-cognitive approach to train the learners’ vocabulary. It is impossible to detect learners’ minds during the learning process, so the introduction of modeling

helps both teachers and learners understand how words are being acquired fully. One of the constructional models of conceptualizing lexical knowledge formation was created by B.González-Fernández using a “multidimensional approach” [González-Fernández, 2022; 1134]. Much research has been conducted to investigate vocabulary dimensions at different angles. Likewise, what kinds of word forms do the English language possess and how can users identify their usage in real-world communication? As stated before, forming lexical knowledge and improving lexical competence is, without a doubt, a fully automatized cognitive process, and conceptualizing the ways of acquiring words in both passive and active levels of language skills helps learners and teachers of a particular foreign language to achieve the goal they intend to.

*Figure 1. Model of conceptualizing vocabulary knowledge*



The educational digital tools we recommend aid in enhancing collocational competence in teaching foreign languages. As shown in Figure 1, the formation of lexical knowledge consists of four main components. Before choosing any tools to assess lexical knowledge, educators should consider all dimensions included in the model.

Modeling of vocabulary knowledge demonstrates lexical information processing, how we receive lexemes, and how we store them as material in our minds [Bezukladnikov et al., 2013; 903]. Perception is directly connected to consciousness and lexical item formation.

In addition, technologies such as online dictionaries, language learning apps, and corpora provide a wide range of vocabulary acquisition and practice resources. These devices help learners obtain lexical units and the perception of words in the target language. Moreover, there is an explanation for the perception of lexical units “Learning lexical units is a necessary part of learning any foreign language, whether it is one’s first or second. It means comprehending, collecting, and recalling lexical units” [Din & Ghani, 2018]. This directly indicates that learning a lexical unit refers

to broader concepts rather than understanding its meaning.

Y.Vovk explored ways of forming lexical competence in the process of activating phraseological units in philology students' speech. Activating refers to knowing the meaning of these units and implementing them in a speech act. This dissertation aims to formulate a theoretical framework, provide empirical validation, and establish approaches to enhance lexical competence in philology students' speech by activating phraseological units [Vovk, 2016; 15].

O.Chyzykova et al. put forward the idea of plurilingualism which improves the professional lexical competence of the learners. "The experience of using computer capabilities in the course of classes is interesting. Writing training can be achieved by offering students to write phrases in a chat for a limited period, inviting students to write in turn. Thus, their writing skills without mistakes, grammar skills, and knowledge of the correct meaning of the word were checked. The exercise in which the teacher invited students to act as teachers was popular among students. Therefore, students begin to better understand the difficulties that teachers face in online learning" [Chyzykova et al., 2021]. O.Chyzykova et al. mostly focused on improving terminology among ESP students using innovative tools such as CALL and MALL.

Technology implementation is another issue when learners' personalities, cultural backgrounds, and interests in the FLT process are considered. B.Göknil researched the impact of personalization on lexical competence acquisition among advanced language learners at Dokuz Eylül University [Göknil, 2015]. The purpose of this thesis was to investigate personalization and its long-term effects on learning lexical items. The results of the research implied that learners who learned words or lexical items related to their background were successful in acquiring lexical competence. It is important not only to relate new unknown words to the learners' personalities but also to show how they connect to the human mind. As stated in the research conclusion, age and level of L2 proficiency can change the effect of personalization on lexical competence. The connection between "age, level, and personalization" could be covered and be a topic for further research [Göknil, 2015; 132]. A.E. Sadenova et al. continue the idea of the gradual development of lexical competence. It is also stated that a recent issue among EFL learners is enriching active vocabulary to improve productivity in communication. The authors suggest implementing semanticization in vocabulary teaching in their research. Semanticization can be fulfilled by "non-translation and translation methods", depending on the learners' background knowledge and teachers' experience in the field [Sadenova et al., 2016]. The researchers also recommended stage-by-stage methods to acquire active vocabulary. However, it takes time and effort to complete each stage, as illustrated by them. Semanticization helps conceptualize lexemes and creates a passive-level active vocabulary bank.

S.Kondos explored the correlation between the teaching of collocations and lexical bundles and the improvement of the writing skills of first-year university students. She also studied some features of formulaic language, a new term in EFL. The findings summarized that explicit instruction in collocations and lexical

bundles significantly improved the writing competence of the target group. Some recommendations were given on how to implement techniques to use “collocations and lexical bundles” [Kondos, 2023; 44]. The researcher applied an intervention vocabulary program that focused on implementing collocations and lexical bundles instead of the Academic Word List in the experiment. In this way, the active and passive levels of our vocabulary bank can be improved.

D.Nizonkiza worked on a nearly new field in language teaching – collocational competence, which is the trend of discovering and identifying the ways of applying “collocations to the productive skills of L2 learners” [Nizonkiza, 2017]. This dissertation aimed to prove that the knowledge of collocations predicts L2 proficiency. In 2011, D.Nizonkiza investigated the relationship between lexical competence, collocational competence, and L2 proficiency [Nizonkiza, 2011]. The study concluded that both terms are interrelated, and with the help of these findings, teachers will be able to simplify the proficiency test in the vocabulary of L2. “...greater emphasis should be placed on depth and productive vocabulary knowledge, as well as on methods for teaching and assessing them to provide at least a balanced perspective on vocabulary knowledge in which all dimensions are recognized” [Nizonkiza & Ngwenya, 2015; 223]. As the main aim of the FLT is to construct communicative competence, productive skills should be at the center of attention, and vocabulary requires an active level. As many scholars have mentioned, proficiency level assessment leads to improving lexical competence, but there is still the question of whether it helps improve productive vocabulary in the process. Indeed, “...it is not enough to determine the extent of a learner’s vocabulary size; we also have to evaluate its depth” [Nizonkiza & Berg, 2014; 46].

A.Alfaifi discovered “the effects of an interactive e-book on promoting idiomatic competence and motivation among English as a second language learners of the Arabic language in Saudi Arabia”. Idioms are an inseparable part of lexical competence and, according to the author of this dissertation, are the most difficult aspect among language learners. Teachers need to consider the actual meaning of the given idioms and their sociocultural background to apply them in productive language. He has also proposed digital tools to improve lexical acquisition among L2 learners. The researcher aimed to enhance idiomatic competence by addressing digital tools. The investigator used a web-based e-book, iMapBook, with server storage. He designed some “idiomatic pictures with expressions” on the iMapBook platform with the permission of the owner of the software program [Alfaifi, 2023]. Both literal and figurative meanings were provided and explained. In conclusion, the use of CALL and MALL enhanced the learning of idiomatic expressions. Recent research has illustrated the interest in the assessment of lexical competence, so that some innovative ways of evaluating vocabulary knowledge are of paramount importance. However, A.Alfaifi also mentioned what should be done further in the field of improving idiomatic competence. The assessment of idiomatic competence with the help of online assessment tools in reading context and detecting rising or falling trends occurs using parametric tests. They used a non-parametric test, which defects the illustration of the overall research results [Alfaifi, 2023; 77].

S.A. Balamur differentiated three tests to find out which one works better to accurate learner's lexical competence. The research mainly focused on receptive vocabulary and its assessment using three vocabulary size tests. The researcher aimed to discover which test covered as many lexical items as EFL proficiency required. The problem here is that vocabulary, owing to its multidimensional nature, seems too complicated to test. The author concluded that the VST worked better than the other two (Y/N tests and VLT tests) [Balamur, 2019; 134] and proved it with the help of reliable shreds of evidence. On the other hand, research has focused on receptive lexical competence, which is regarded as a passive vocabulary level. The unanswered question is: Are there any possible means or tools to detect a productive (active) vocabulary level in an EFL/ESL context?

K. Caro and N.R. Mendinueta recommended that, in light of current advancements in the discipline, the concepts of lexis, lexical competence, lexical knowledge, and the scope and depth of lexical knowledge be reviewed. The interpretation of lexis is limited because it is not the same as the usual term vocabulary. "Lexis encompasses lexemes, vocabulary, and lexical items and is more extensive" [Caro & Mendinueta, 2017; 207]. The study examined lexical competence and offered a revised definition that lexical knowledge and its use in different contexts. The authors also suggest that knowing a term has merits beyond understanding its form and meaning. Various frameworks for lexical knowledge were described, along with their dimensions. However, they do not appear to represent how EFL learners acquire lexical competence. To assume how lexical competence is acquired by EFL learners, the assessment of lexical knowledge needs to be both methodologically and technologically advanced. K. Caro and N.R. Mendinueta proposed Lex 30 [Meara & Fitzpatrick, 2000; 22] to estimate receptive vocabulary knowledge and productive levels of vocabulary knowledge. This test looks like brainstorming, and it evaluates the productive level of lexical competence. The unique feature of Lex30 is its capacity to assess productive vocabulary knowledge on its own. It does not engage with context or activate different aspects of language knowledge. This implies that we can evaluate productive vocabulary as a single component of language knowledge independent of other language knowledge components. J. Clenton states his ideas about Lex30 in his PhD dissertation preview "Lex30 offers the potential to hypothesize about subjects' relative L2 proficiency in terms of the proportion of infrequent items they provide" [Clenton, 2010; 2]. Lex30 can also be described as a 'form recall' test [Laufer & Goldstein, 2004], which is a way of indicating that the form and meaning relationship constituting a word is being accessed in the test via the meaning, cued by the prompt word, and the test taker task is asked to provide the form. In other words, the test measures the ability of learners to produce words when they are prompted to do so but not their ability to use the word [Meara & Fitzpatrick, 2004].

## METHODS

We intended to implement Lex 30 to detect a productive level of lexical competence and to observe how it establishes productivity in learners' vocabulary

knowledge. In the experimental part of the research, we used pedagogical research methods: observation, quantitative methods, (administering vocabulary proficiency tests (e.g., Lex30) to measure productive and receptive vocabulary. The scores can be statistically analyzed to determine patterns). The current issues in leaching vocabulary were clarified while observing. Learners of foreign languages acquire new words in two ways: intentionally (with explicit vocabulary exercises) and incidentally (learning outside of the classroom and textbooks using authentic materials). The experiment method is applied using Lex30 which is considered CALL and MALL tool.

Data will be collected from a sample of B2-level students at Uzbekistan State World Languages University (UzSWLU). Each student will undergo Lex30 tests individually, ensuring privacy and avoiding peer influence. First, the researcher observed the class that was targeted. The observation objective was how students process and use vocabulary (lexical items) during different classroom activities. The goals may include tracking the use of specific word categories, assessing spontaneous word recall, or evaluating contextual word usage. Observation criteria and tool:

1. Productive vocabulary use: the frequency and accuracy of students actively using target words in speaking and writing.

2. Receptive vocabulary recognition: students' ability to understand and respond to vocabulary during listening and reading tasks.

3. Lexical retrieval and flexibility: observe how quickly and accurately students retrieve words, particularly in spontaneous communication.

While choosing research participants their level of language proficiency is taken into account. In the pre-test, the researcher used Examenglish.com ([https://www.examenglish.com/leveltest/grammar\\_level\\_test.htm](https://www.examenglish.com/leveltest/grammar_level_test.htm)), and according to their test result, the researcher chose 13 students out of 18 whose levels are B2 in the vocabulary aspect. There are 15 questions on grammar and vocabulary, "Lexical competence, knowledge of, and ability to use, the vocabulary of a language, consists of lexical elements and grammatical elements" [Council of Europe, 2001; 110], for that researcher finds it appropriate to include grammatical questions in the selection process of the participants. Questions will get easier or more complex according to the students' answers to the questions automatically. Here are the results of the pre-test for the selection of research participants:

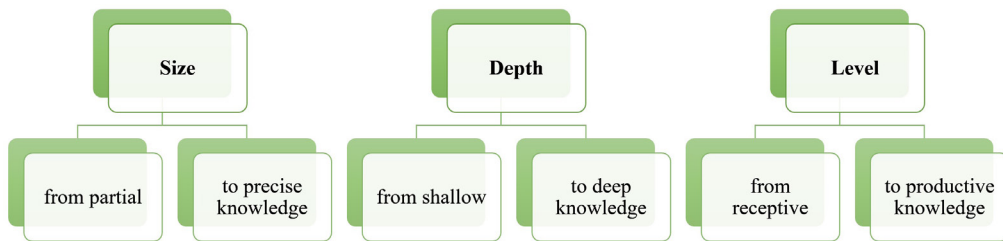
The results will provide insights into students' productive lexical knowledge. Discrepancies between the WAT and Lex30 test outcomes may indicate differences in passive recognition and active usage of vocabulary. The discussion will address implications for language teaching and learning strategies to enhance students' productive lexical knowledge.

Vocabulary level test samples from the most frequently used words (British National Corpus) 4<sup>th</sup> 1000 level and 5<sup>th</sup> 1000 level words [Nation & Beglar, 2007; 11].

*Table 1. Pre-test*

Participants	Time	Level	Status
Nominee 1	10 mins 34 sec	B2	Approved
Nominee 2	11 mins 34 sec	B2	Approved
Nominee 3	12 mins 34 sec	B1	Not approved
Nominee 4	13 mins 34 sec	C1	Not approved
Nominee 5	14 mins 34 sec	B2	Approved
Nominee 6	15 mins 34 sec	B2	Approved
Nominee 7	16 mins 34 sec	B2	Approved
Nominee 8	17 mins 34 sec	B2	Approved
Nominee 9	18 mins 34 sec	B2	Approved
Nominee 10	19 mins 34 sec	B1	Not approved
Nominee 11	20 mins 34 sec	B2	Approved
Nominee 12	21 mins 34 sec	B1	Not approved
Nominee 13	22 mins 34 sec	A2	Not approved
Nominee 14	23 mins 34 sec	B2	Approved
Nominee 15	24 mins 34 sec	C1	Not approved
Nominee 16	25 mins 34 sec	B2	Approved
Nominee 17	26 mins 34 sec	B2	Approved
Nominee 18	27 mins 34 sec	B2	Approved
Nominee 19	28 mins 34 sec	C1	Not approved
Nominee 20	29 mins 34 sec	B1	Not approved
Nominee 21	30 mins 34 sec	B2	Approved

The range and depth of lexical knowledge were other topics to be covered. These were addressed from a different perspective proposed by P.Meara and B.Wolter, in which lexical elements are interconnected and create networks or relationships in contrast to the linear view. It can be concluded that evaluating vocabulary size, depth, and level is one of the most urgent problems in improving lexical competence [Meara & Wolter, 2004; 88]. To measure “the size and depth of vocabulary”, appliances not only traditional but also modern assessment tools for the educational process have become a necessity. According to B.Henriksen’s classification of lexical dimension [Henriksen, 1999; 303], vocabulary knowledge consists of three components:



With the help of evaluating these three dimensions of word knowledge, educators can upgrade learners’ foreign language proficiency.

Their study is so valuable as it illustrates the necessity of further investigation on the productive level of lexical competence in terms of the depth dimension of vocabulary knowledge. B.Henriksen’s lexical knowledge dimension is a concrete

framework that illustrates it in general. The first dimension is simple word recognition, knowing the word's meaning. However, it does not reflect lexical competence; in this context, the second and third gain more importance.

The relationship between a word and other terms in the lexicon is the subject of the second dimension, depth of knowledge. The relationship could be “paradigmatic (antonymy, synonymy, hyponymy, etc.) or syntagmatic (collocational restrictions)” [Choudhury, 2015; 38]. The learner's comprehension and production abilities represent their current state of vocabulary mastery, which can be observed in the third dimension, the receptive-to-productive dimension. Since receptive vocabulary is limited to the perception of lexical items, it is larger. Conversely, the capacity to utilize a lexical item in production is a prerequisite for productive vocabulary. From that point of view, we can conclude that lexical competence is far from knowing only the meaning of a word and storing it as a passive lexicon, lexical knowledge illustrates a broader conception, especially in EFL. B.Henriksen's lexical dimension is one of the perfect explanatory concepts, and it shows concrete directions for the recent issues that need to be tackled in this field. Syntagmatic parameters of vocabulary knowledge depict the depth of vocabulary knowledge. In this term, not a meaning but its correlation with other words according to the meaning, form, and usage. A.S. Choudhury also mentions the most crucial aspect of lexical competence, which shows the learner's capability of producing speech act, oral or written. He evaluated the breadth and depth of lexical knowledge with the help of VLT and VST; however, he concluded that still measurable assessment tools are needed.

There are hundreds of research studies to clarify the impact of online tools on the language learning process. Digitalization in every sphere of education creates convenience for both educators and learners at the same time. It is also investigated that “e-learning through podcasts' influence on effective vocabulary acquirement and the learners' motivation [Farshi & Mohammadi, 2013; 1382]. We decided to use both CALL and MALL in our experiment.

As our main task is to assess the productive level of lexical competence, we divided the participants into two and the test materials. Productive knowledge encompasses both controlled and free productive knowledge. Controlled productive knowledge is assessed using LEX 30 and PVLTL, tools developed by B.Laufer and P.Nation in 1999. On the other hand, free productive knowledge is typically evaluated using word associate tests (WAT) [Laufer & Nation, 1999; 51]. What is good about using online assessment tools is that they are easy to administer, check, and motivate learners.

## RESULTS

This experiment assesses B2-level students' productive lexical knowledge using WAT and Lex30 tests at UzSWLU. This study seeks to provide valuable insights for educators to optimize language teaching methodologies and improve students' language proficiency by analyzing the data collected. Productive lexical knowledge, the ability to actively use words in speaking and writing, is essential to language

competence. This experiment aims to assess the productive lexical knowledge of B2-level students at UzSWLU using the Lex30 vocabulary test.

**Lex30 Vocabulary Test:** Students are provided with an HTML link to enter the online tool Lex 30 created by P.Meara and T.Fitzpatrick, which includes 30 words. It is an online tool to gauge essential vocabulary acquisition.

*Figure 3. Lex30 on Lognostics*

Lex30 is a test of productive vocabulary in English. It was designed by **Tess Fitzpatrick** and **Paul Meara**

Lex30 is a simple word association test. We give you a list of words; for each word you have to supply four other words that it makes you think of. An example is provided below.

**EXAMPLE**

animal	elephant	tiger	farm
	wild		

When you are ready to begin, type your name and your email address in the boxes below. Then click **START**.

Your name

Your email

**START**

Test takers enjoyed the test. They were very positive and expressed their eagerness to participate. Also, they liked the content of the test based on real-life situations. The content was not culturally, topically, and linguistically offensive. Since the test designers did the sample task with the students a week before the test, they were familiar with the procedure and clearly understood the instructions. All of the above stated assured us that the interpretations of ability were fair for all groups of test takers. We decided to choose a computerized version of Lex30; however, a researcher in 2012 preferred a paper-based one to avoid common word choices that learners choose to write “Even though a computerized version of the Lex30 test is available (<http://www.lognostics.co.uk/tools/Lex30/index.htm>), it was decided to use a paper-pencil version of the test, to enable the extraction of low-frequency words for further testing (not possible on the web version for a group of participants). The same stimulus words were used as are seen in the computerized version, presented on a single page with spaces to write four responses per stimulus” [Walters, 2012; 177].

## DISCUSSION

The tools, as mentioned earlier, help to determine a productive level of vocabulary knowledge. The Lex30 assignment involves a word association exercise, where participants receive a series of prompt words and are tasked with generating corresponding responses. Unlike structured tasks with predetermined response targets, Lex30 resembles an open-ended productive task. However, the provided prompt words exert certain constraints on responses, aligning Lex30 with the benefits of context-bound productive tests. Word association tasks typically yield a wider range of vocabulary and are less influenced by contextual restrictions than entirely free-form production tasks.

### **Lex30 vocabulary test**

Instructions: In this test, you will receive a list of words. Your task is to use each word in a sentence demonstrating your understanding of its meaning. Write your sentences in the space provided.

The experiment aimed to evaluate the effectiveness of using Lex 30, a new instrument that measures productive levels of lexical competence, in both the control and experimental groups. Participants' ability to create and use terminology in various circumstances was assessed using Lex 30, a sophisticated lexical assessment tool. The control group, comprising individuals who did not receive any intervention, functioned as a reference point to gauge the efficacy of Lex 30. On the other hand, the experimental group underwent lexical competency training and teaching, and then they were assessed using Lex 30 to ascertain the effectiveness of the intervention.

After analysis, the findings showed significant differences in the experimental group results which was chosen as the subject of the research, and the control groups' productive lexical ability. In comparison with the group under control, the experimental group's participants showed a noticeable improvement in their lexical competency. Their increased output of vocabulary and their ability to use it appropriately and in context demonstrated this improvement.

The experimental group's members exhibited a notable expansion in their vocabulary repertoire, exhibiting a wider range of words and expressions in diverse language contexts. Additionally, they used terminology with greater precision and appropriateness, indicating a stronger comprehension of syntactic and semantic complexities. In addition, the experimental group evidenced enhanced lexical production fluency, which was proven by smoother word transitions and more explicit, more verbal interaction. This fluency indicated a higher degree of general language competency in addition to highlighting the individuals' better lexical competence. In contrast, participants in the control group displayed more limited and repetitive lexical usage, indicative of a less developed lexical repertoire and proficiency. Their responses tended to be less varied and less precise, reflecting a relatively lower level of lexical competence. The research findings underscore Lex30's credibility and validity as an instrument for assessing productive vocabulary proficiency. However, its efficacy in gauging mere recall versus the practical application of vocabulary in meaningful and fitting contexts seems to be contingent upon the proficiency level of the individual undergoing testing. At the core of this assessment lies a crucial distinction: does Lex30 primarily quantify the ability to recollect words, or does it truly capture one's competence in utilizing vocabulary effectively and aptly? This dichotomy isn't universal; rather, it hinges on the test taker's proficiency level. For those at higher proficiency levels, Lex30 may serve as a robust measure of not just word recall, but also the nuanced skill of employing vocabulary appropriately. Conversely, for individuals at lower proficiency levels, the assessment may predominantly reflect basic word recall abilities rather than a comprehensive grasp of vocabulary application. Hence, the interpretation of Lex30 results necessitates consideration of the test taker's proficiency level, shedding light on the multifaceted nature of language assessment

and the nuanced interplay between vocabulary knowledge and usage proficiency.

The experiment's findings, taken as a whole, demonstrated the effectiveness of Lex 30 in distinguishing differences in productive lexical competence. The results also provided valuable insights into the impact of lexical intervention strategies on language proficiency and highlighted the potential of tools like Lex 30 in assessing and enhancing learners' lexical skills. The other researcher concluded that "As with most vocabulary tests, the underlying construct of Lex30 is word frequency since it is hypothesized, following usage-based language acquisition theories, that the more frequent a word is the more likely it is to have been encountered in the input. This, in turn, involves that the most frequent words would be learned first, whereas lower frequency ones would appear later in the vocabulary of learners" [González & Píriz, 2016; 17]. Moreover, in our data, we identified statistically significant, though moderate, correlations between our learners' Lex30 scores and three other L2 proficiency measures. What was especially surprising was the weak link between the two tests used to assess students' vocabulary knowledge (both productive and receptive), particularly given that P.Meara and T.Fitzpatrick reported a much stronger correlation of 0.841 ( $p < 0.01$ ) between Lex30 and a yes/no test of passive vocabulary [Meara & Fitzpatrick, 2000].

Lex30 measures how well a learner can produce less common (i.e., lower frequency) words in response to prompts. The test evaluates productive vocabulary by asking participants to generate words related to 30 common prompts, like "house" or "school". The key points include:

1. **Uncommon Words Focus:** The scoring prioritizes uncommon words not typically found in basic vocabulary lists (like the first 2000 most frequent English words). The goal is to assess their ability to produce a wide range of vocabulary beyond the basics.

The researcher applied AI to the score interpretation process to generalize the results gathered from the experiment.

2. **Score Interpretation:**

1. **Score of 100-117:** This suggests that out of all the words students generated across the 30 prompts, a significant portion were classified as "uncommon" or advanced. This implies a strong command of productive vocabulary, especially at a higher level like B2 or above.

2. **Productive vocabulary breadth:** A score in this range shows participants are likely able to draw from a diverse vocabulary set, including less frequent or specialized words when prompted.

**Breakdown of Lex30 Criteria:**

Here's what contributes to a higher score like 100-117:

- **Word variety:** Students likely produced a wide variety of words across different semantic fields (e.g., synonyms, and related terms).

- **Relevance and specificity:** Their responses were relevant to the prompts, and many of them were likely specific rather than generic terms. For instance, producing "villa" instead of just "house" could boost their score.

■ **Uncommonness of words:** Since common words do not score points, a high score means they consistently use vocabulary outside the most basic or frequent word categories.

What Their Score Suggests:

■ The highest score among the participants – 117 indicates that the participant has a rich productive vocabulary, likely well beyond what is expected at a B2 level. This result typically aligns with higher proficiency (possibly C1 or above), where learners can access and use less common vocabulary fluently.

■ The ability to recall and use such vocabulary spontaneously, as required by the Lex30 test, points to strong lexical depth and a capacity to communicate more precisely and flexibly.

## CONCLUSION

In conclusion, the implementation of Lex30 represents a significant stride in enhancing productive lexical knowledge among learners. Through a meticulous integration of these techniques, educators and learners alike stand to benefit from a multifaceted approach that addresses both breadth and depth of vocabulary acquisition.

The utilization of Lex30 offers a structured framework for systematically acquiring high-frequency vocabulary. By focusing on the most commonly used words in a language, learners can prioritize their efforts, maximizing the efficiency of their study sessions. Additionally, the categorization of words based on frequency enables learners to tailor their learning strategies to suit their specific needs, whether it be academic, professional, or everyday communication.

Crucially, Lex30 transcends mere memorization, encouraging learners to internalize words within meaningful contexts. By contextualizing vocabulary within authentic linguistic settings, learners develop a deeper understanding of usage nuances and collocational patterns, thereby enhancing their communicative competence.

Furthermore, the adaptability of Lex30 lends itself well to diverse learning environments and learner profiles. Whether in traditional classroom settings, online platforms, or self-directed study, these techniques offer flexibility and scalability, accommodating the varied needs and preferences of learners across different proficiency levels and backgrounds.

In essence, the implementation of Lex30 represents a holistic approach to fostering productive lexical knowledge, encompassing both the spontaneous retrieval of words and the systematic acquisition of high-frequency vocabulary. By embracing these techniques, educators empower learners to expand their lexical repertoire and wield language with confidence and precision in real-world contexts, thereby unlocking a world of opportunities for effective communication and expression.

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