

# GAME-BASED VOCABULARY LEARNING TO KINDLE LEXICAL ACCESS AND VOCABULARY RETRIEVAL IN SECOND LANGUAGE LEARNING

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## ABSTRACT

Human beings communicate with others through a language in the form of words, which is stored in the mental lexicon. The stored lexical entries from the mental lexicon are retrieved through lexical access. In the case of learning English as a second language, children face a challenge with fluency, as their mental lexicon has a limited vocabulary size. Children often struggle to expand their academic vocabulary knowledge due to a lack of familiarity with the words in their daily usage. Lacking fluency and effective teaching methods daunt the English language learner's interest in learning novel vocabulary. To stimulate their interest, they need to be motivated through unique methods; one among them is game-based vocabulary learning.

This paper tries to put forward the importance and ways for increasing the accumulation of vocabulary in the mental lexicon and access the vocabulary glibly through game-based vocabulary learning while communicating in English as a second language.

**Keywords:** Game-Based Learning, Lexical Access, Game-Based Vocabulary Learning, English as a Second Language

## 1. INTRODUCTION

### Preamble

"Children learn as they play. More importantly, in play, children learn how to learn."

– O. Fred Donaldson

Language learning is a natural process. Children learn their native language from the womb by hearing the sounds of their mother's voice. Children learn language easily by interacting with the people around them. They acquire a language with its complete semantic and syntactic form after coming into contact with people in society and receiving an education from educational institutions. Learning a second language becomes a challenge since every language has its specific grammar rules and forms (Teed, 2021). World with technology and cutting-edge approaches transforming conventional classroom procedures, the educational landscape is evolving rapidly. In the universalisation of education,

English has become the most widely spoken second language in the world. The English language plays an indispensable role in children's life.

The present generation aspires to succeed abundantly by pursuing an education abroad. For effective communication and learning, children require articulacy in English as a Second Language (ESL). Children learning English as a second language frequently face anxiety and avolition. The deficiency of fluency in ESL creates a conviction that they are incongruous with education. To become fluent in ESL, children must develop their vocabulary size and depth. However, a limited vocabulary size hinders the retrieval of words from the mental vocabulary, and children find it challenging to speak and write fluently.

## 2. ENGLISH AS A SECOND LANGUAGE (ESL)

English is the most widely spoken and widely used language in the world. The majority of educational organisations opt for English as their primary language for teaching and learning due to the prominence of the English language. English is a universal language. It facilitates communication across the globe, making it easy and expedient. According to Nordquist (2019), ESL is a traditional term used to describe a non-native English speaker who uses English for communication and learning in an English-speaking environment. English language learners have the opportunity to broaden their knowledge and communicate with people from other parts of the world. It allows them to expand their circle, broaden their creativity, develop confidence, achieve their goals, and secure job opportunities. Currently, children are living in a competitive world where only skilled English speakers have opportunities to make headway and move forward towards personal and professional progress (McGann, 2020). The success of second language acquisition is influenced by several factors (Alves & Oliveira, 2014). Being a foreign language, English is a stalwart language that students need to understand and communicate effectively. ESL learners struggle with vocabulary size and depth. Children who want to be proficient in English are required to master new vocabulary (Afzal, 2019).

## 3. VOCABULARY

In children, vocabulary continues to grow relentlessly with age and learning experiences. Vocabularies construct the language since they are the standard set of words a person's language has. According to The National Reading Panel (2000), to access in-depth information, articulate facts and correspond efficiently, children must be familiar with vocabulary. Vocabulary grows with age, cognitive development and personal experiences in one's surroundings. For fluent communication, children need to have a rich vocabulary. According to McGann (2020), receptive vocabulary and expressive vocabulary are essential parts of effective communication in any language. It aims to understand words, including their structure, usage, meanings, and semantic relationships. During communication, acquaintance with vocabulary and meanings affects children's abilities to understand and use words appropriately. A robust English vocabulary enhances effective communication and helps children express their thoughts clearly and eloquently. According to Wilkins (1972 cited in Isnaini 2019), "Very little can be expressed without grammar or nothing can be expressed without vocabulary." A strong vocabulary in the target language it supports enhances communication in all contexts. Human beings use language to communicate through vocabulary, which is stored in an inbuilt human dictionary known as a mental lexicon. English vocabulary not only consists of words but also comprises their form, meaning and knowledge, which is retrieved through lexical access from the mental dictionary. Understanding English vocabulary is closely related to learning strategies, which include learning the correct spelling of a word, accurate pronunciation, the juxtaposition of words and correlating words with their context and uses (Teed, 2021). Children's communication abilities will develop as a result of studying and learning new vocabulary and using them in appropriate situations. Children's vocabulary can be expanded through reading habits, idioms, connotations, antonyms, synonyms, and related words (Hofer et al., 2011).

## 4. PROMINENCE OF VOCABULARY

Vocabulary plays an elemental part in communication. Without vocabulary, zilch can be communicated. Vocabulary is the building block of the language. Children will be able to communicate properly only with the help of a robust vocabulary. Enhanced communication skills will pave the way for better understanding and academic success. Children need a rich vocabulary to express their thoughts and feelings effectively. Hefty vocabularies help children express their

ideas clearly (Kaya & Travis, 2010). As English is a second language, children often encounter difficulties when communicating, sometimes forgetting accurate words and using inappropriate vocabulary, which can make their communication a mess. While writing vocabulary, dearth encourages children to use conversational language instead of formal language (Pho and Dinscore, 2015). Children who encounter excessive new vocabulary have fluency in that language. In the course of daily experiences, children learn the meanings of most words and the remaining words require carefully designed instruction (Trybus & Jessica, 2015). English as Second Language learners typically acquire the language in schools.

To develop vocabulary memory access, GBL is a technique for expanding the size and intensity of one's vocabulary while focusing on the dynamicity and arbitrariness of ESL learners. Students' deficiency of vocabulary knowledge has continually been an obstacle to student success (Nagy & Townsend, 2012). The teacher should use GBVL to improve the vocabulary of ESL students.

## 5. LEXICAL ACCESS

According to the APA Dictionary of Psychology, "The process by which an individual produces a specific word from his or her mental lexicon or recognises it when used by others". Lexical access entails connecting the lexical-semantic representation with either its orthographic representation for written words or its phonological representation for spoken words (Race & Hillis, 2015). When human beings listen to a conversation or read a text, the vocabulary is stored in short-term lexical memory. Subsequently, regular practices help store vocabulary in long-term lexical memory.

While speaking or writing, the vocabulary stored in the mental lexicon associates the words with their exact meanings and retrieves them when necessary, enabling us to comprehend or generate them (Falciani, 2020). To understand speech, the phonological form of the delivered acoustic stimulus must match the orthographically presented stimulus in a reading context with the appropriate stored representation in the mental lexicon (Yelland, 1994). Learner comfort and optimism have measurable effects on vocabulary access, information transfer and brain memory (Prabha & Raja, 2018). Every child has a hankering to play games. Games increase their interest and stimulate their learning. In the case of learning ESL, a child's interest and vocabulary development is kindled through GBL.

## 6. CHALLENGES FACED BY ESL LEARNERS

### 1) Lack of Confidence and Language Anxiety

Language anxiety is one of the biggest psychological obstacles that ESL students must overcome since it can impair oral fluency and involvement. Many students are reluctant to interact because they are afraid of making mistakes and receiving mockery (Horwitz et al. 1986). According to Krashen (1982), this affective filter restricts information processing and hinders acquisition.

### 2) First Language Interference

Learners frequently make mistakes while transferring phonological, grammatical, or syntactic principles from their first language to English. This phenomenon is known as first language interference. Different languages have different word orders, article usage and tense structures, which might be confusing (Odlin, 1989). If corrective feedback and explicit training are not provided, the negative transfer may continue.

### 3) Limited English-language exposure

ESL students frequently have little opportunity to utilise English outside of the classroom, particularly in settings where English is not the primary language. Fluency and the organic development of conversational skills are hampered by this lack of genuine experience (Lightbown & Spada, 2013). Frequently, practice is restricted to structured classroom settings that might not fully represent real-world applications.

### 4) Vocabulary Inadequate

A limited vocabulary hinders understanding and communication. Many ESL students find it challenging to comprehend idiomatic or academic language, which is essential for success in both professional and higher education contexts (Nation, 2001). Learners may reach a language development plateau in the absence of context-rich exposure and specific vocabulary instruction.

### 5) Social and Cultural Barriers

Culture and language learning are closely related. ESL students may encounter isolation, prejudice, or cultural shock in strange settings (Norton, 2000). Their communication styles, identities and beliefs might not align with those of the majority, which could affect engagement and motivation.

### 6) Gaps in Instruction and the Learning Environment

Learning challenges can be exacerbated by inadequate teacher preparation, poorly designed curricula and a lack of differentiated instruction. Diverse linguistic backgrounds, learning preferences and skill levels may not always be something that teachers are prepared to handle (Cummins, 2000).

### 7) Academic Difficulties

ESL students usually struggle in academic contexts to comprehend lectures, read scholarly literature, write essays and participate in discussions. As children learn language and content knowledge simultaneously, cognitive overload can occur (Gibbons, 2002). Their self-esteem and academic achievement may suffer as a result.

### 8) Game-based learning

The primary aim of education is to learn with pleasure and reward. There is no age limit to play. Everyone has an interest in playing games. Game-Based Learning (GBL) borrows specific gaming ideas and applies them to real-world contexts (Trybus & Jessica, 2015). Noroozi et al. (2020) describe game-based learning as a teaching method that incorporates games to engage students and promote active learning in a light-hearted setting (Qudsi, 2024). In GBL, Coleman and Money (2020) emphasise the value of student-centred education enhancing student motivation and cognitive skills (Al-Khayat, 2023). GBL was further described by Ifenthaler et al. (2012) as incorporating game design to improve the educational setting. Tang et al. (2009) emphasised the use of ICT to develop dynamic and inspiring virtual learning environments. This method emphasises using top-notch games in the classroom to promote interactive learning (Castillo-Cuesta, 2020; Ge & Ifenthaler, 2018),

To trigger students' interest in learning, GBL is becoming increasingly widespread (Pho & Dinscore, 2015). In GBL, children are motivated to interact with instructional materials in a frisky and pleasing manner. According to EdTechReview (2013), "Game-Based Learning is designed to balance subject matter with gameplay and the ability of the player to retain and apply said subject matter to the real world." Incorporating an environment for playing games helps children learn the content and augment their knowledge, abilities, and attitudes (Kim & Bohyun, 2013). Learning vocabulary through GBVL is an effective strategy for helping children achieve their goal of acquiring new vocabulary. GBVL ensures that they are fully engaged with the novel vocabulary to improve learning. Through GBL, children become motivated and learn optimistically from their errors (Teed, 2021). Tang et al. (2009) emphasised the use of ICT to develop dynamic and inspiring virtual learning environments.

## 7. GAME-BASED VOCABULARY LEARNING

English language instructors can improve their students' conversational skills by using technology as a creative tool (Haleem, 2022). Digital games are used to teach languages in the new and quickly expanding field of GBL (Rajendrana, 2024). Noroozi et al. (2020) describe GBL as a teaching method that incorporates games to engage students and promote active learning in a light-hearted setting. In GBL, Coleman and Money (2020) emphasise the value of student-centred education. GBL was further described by Ifenthaler et al. (2012) as incorporating game design to enhance the educational setting.

Children's vocabulary achievement, zeal, and confidence increased their obligations to GBVL applications (Gryphon & Harley, 1996). When language learning is combined with games, it triggers their interest and helps them learn more vocabulary (Castaeda & Cho, 2016). Instead of playing games on gadgets, children are encouraged to learn vocabulary through GBVL by designing learning activities that gradually introduce vocabulary and lead them toward a specific objective. According to Prensky (2001), the selected vocabulary games enhance semantic and orthographic connotations in English vocabulary learning, which may lead to improved access and usage of vocabulary. Sartre (2020) emphasises that understanding the concept is crucial for scoring and winning the game.

The exciting, educational game often incorporates a real-life component that engages children in learning activities, all wrapped up in a design (Li et al., 2021). GBVL can be incorporated by amalgamating vocabulary learning content into a digital and engaging activity that includes games, social communication skills (Chen et al., 2018), challenges and

provides instantaneous feedback, thereby encouraging children to attend programs with eagerness. Utilising information and communication technology (ICT) resources, such as games, animation, audio and video, as tactical instruments to enhance students' communicative competence is one method to innovate in language classrooms (Sørensen and Meyer, 2007). GBL is a teaching method that encourages motivation (Coleman and Money, 2020), enhances student engagement, promotes positive attitudes and facilitates language acquisition (Hartt et al., 2020). Castillo-Cuesta (2020) emphasises the use of top-notch games in the classroom to encourage interactive learning.

## 8. SELECTION OF MOST RELEVANT GAMES

Game-based approaches have the potential to enhance learner motivation, engagement and language acquisition; their incorporation into English language teaching has gained popularity. A methodical strategy that aligns with the needs, skill levels, learning objectives and educational context is necessary to select the most relevant games and tactics.

According to the curriculum's objectives, effective game-based tactics should be employed to teach speaking, listening, writing, grammar, vocabulary, and reading (Wright et al., 2006).

The selected strategy should suit students' age, interests and learning styles, as games that are too simple or too hard can reduce motivation. Games that encourage independence, creativity and meaningful interaction boost engagement and retention (Chen, 2005).

Games should match the language skills of the learners. Beginners benefit from simple, visual games like memory or matching, whereas intermediate learners are more engaged in word-building and sentence-making tasks (Hadfield, 1990).

To promote connection and reduce misunderstanding, games should represent students' cultural backgrounds and familiar settings. Engagement and inclusion are increased when identifiable names, locations, or themes are used (Larsen-Freeman & Anderson, 2011).

A key component of successful game-based learning is the integration of feedback. Learning outcomes are improved by games that enable teachers to monitor student progress, correct mistakes, and promote peer participation (Reinders & Wattana, 2015).

Device access and internet connectivity are prerequisites for playing digital games, board games, card games and role-playing in the classroom (Godwin-Jones, 2014).

For effective vocabulary development in children, the game should be selected in a manner that facilitates clear and measurable goal achievement. The game should be age-appropriate, quick and engaging (Teed, 2021). Vocabulary games can be prearranged into groups and assigned as class activities. Prepare the game through a story and retell it using key vocabulary from texts until they become dexterous. Group the required vocabulary into sets and repeat each vocabulary multiple times. Visualise pictures and convert them into vocabulary words.

## 9. BENEFITS OF GAME-BASED VOCABULARY LEARNING

Through GBVL, children can be exposed to similar vocabulary in multiple ways. It increases vocabulary knowledge during group learning (Pho & Dinscore, 2015). It suits all age groups and improves their spelling skills. Using GBVL in the classroom engages children by immersing them unswervingly in the educational practice and strengthens memory access. It enhances vocabulary retention and increases child engagement by improving attention span and providing an overall enjoyable learning experience, with rare instances of hectic circumstances (Li, 2021). According to Teed (2021), GBVL encourages student motivation and immerses them in vocabulary, allowing them to learn more effectively. According to (Teach thought staff), GBVL escalates a child's memory capability and simulates fluency. It supports fast tactical intelligence, improves problem-solving skills, and enhances their ability to think independently and creatively rather than just memorising. Digital GBVL develops hand-eye coordination. It enhances recall and retention, helping children remember vocabulary more effectively for exams and communication (Teach thought staff). Enjoyable and memorable experiences through GBVL will stay with children long after they have left the classroom.



## 10. GAME-BASED VOCABULARY LEARNING SUPPORTING LEXICAL ACCESS

For second language learners, game-based vocabulary acquisition is essential for enhancing vocabulary retrieval and promoting lexical access. Games help students retain words more deeply and retrieve them more quickly by involving them in meaningful and dynamic activities. Games like word puzzles, memory games, or digital vocabulary challenges, in contrast to rote memorisation, stimulate several brain pathways, improving learners' capacity to recover vocabulary in conversation (Nation, 2001).

Games also generate a joyful, low-anxiety setting that makes lexical objects more accessible by lowering the cognitive burden frequently associated with using a second language (Chen, 2005). Through context-based learning, the repetition and reinforcement incorporated into game mechanics facilitate the consolidation of word forms, meanings, and usage and enhance both long-term vocabulary storage and immediate recall.

## 11. CONCLUSION

Children struggle with English language fluency due to a lack of vocabulary, ineffective learning strategies and poor memory skills. GBVL can be used in a variety of ways to enhance their vocabulary size. It provides a way for children to receive visible recognition for their skills and knowledge, thereby reinforcing engagement and participation.

## CONFLICT OF INTERESTS

None.

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