Investigating the Receptive Language Proficiency and Metaphorical Competence of Saudi EFL Learners

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Abstract

The primary objective of this study was to examine the correlation between receptive metaphoric competence and language proficiency among Saudi English as a Foreign Language (EFL) learners, while also investigating the influence of students' language competency levels on their metaphoric competence. The study involved a sample of 94 EFL learners, and a quantitative research approach was employed. Inferential statistics were utilized to address the research questions and hypotheses. The findings revealed a significant relationship between receptive metaphoric competence and language proficiency. Moreover, this study aims to address gaps in previous research by exploring conceptual metaphors and investigating the correlation between Receptive Metaphoric Competence and reading proficiency. By doing so, it contributes to the theoretical, methodological, and pedagogical advancements in the field of research and education. Additionally, this research holds considerable significance in the domain of language studies as it investigates the impacts of second language acquisition on Saudi learners. Furthermore, it provides valuable insights into the area of L2 metaphoric competency, thereby making a noteworthy contribution to the existing body of knowledge in this field.

Keywords: metaphoric competence, EFL, Receptive, language competency, learning

1. Introduction

Receptive language proficiency and metaphoric competences play a crucial role in overall language proficiency (Zhao et al., 2014). Metaphor, due to its intricate connection with cognition, has captivated linguists who strive to delve deeper into its origins and usage (Deriso, 2011; Wilson & Kearns, 1989). Linguistic competence gained significant emphasis with the advent of formal linguistics; however, despite the abundance of studies on metaphor at both local and international levels, its application to foreign language acquisition (EFL) or second language acquisition (SLA) remains relatively scarce. Azuma (2005) suggested that this scarcity may be attributed to limited availability of target languages, while another contributing factor could be the insufficient attention given to the importance of metaphor instruction in the classroom. Whether in first or second language acquisition, reading comprehension represents a highly intricate cognitive process wherein the reader employs their cognitive abilities to extract meaning from written texts.

Metaphors exert various influences on reading comprehension. At the word level, traditional metaphorical mappings facilitate the inference of innovative derivative metaphors that enhance reading understanding. For example, the symbolic metaphor "Internet is a Highway" allows for the interpretation of expressions such as knowledge pathways, cyber world, cyber-tourism, and cyber-surfer. On a deeper level, certain metaphors aid learners in grasping the fundamental concepts and macrostructure of a text through a top-down framework. For instance, in a business-related context, conceptual metaphors and associated mappings, such as "Business is a War," can be employed throughout the text, enabling the depiction of business competitors fighting, safeguarding, monopolizing, producing, or relinquishing their industry in a combative sense. Consequently, the manuscript can be comprehended and summarized in a macro perspective.

Previous research has demonstrated a strong correlation between L2 receptive metaphoric competence and L2 proficiency (Zhao et al., 2014), as well as between L2 productive metaphoric competence and L2 vocabulary depth (Azuma, 2005). Furthermore, studies have explored the relationship between L2 receptive and productive metaphoric competence in intermediate learners, yielding medium-to-large effect sizes (Azuma, 2005) or negligible-to-small effect sizes (Littlemore, 2001). However, the association between L2 receptive metaphoric competence and L2 reading proficiency remains unexplored, particularly in the context of Saudi EFL learners.

It is important to acknowledge that the investigation of metaphor and analysis of metaphorical competence in language instruction is not a new concept; however, previous studies have had limited scope and focused on specific areas of interest. In the context of Saudi Arabia, the analysis of metaphor and metaphorical competence is a relatively novel concept, and the researcher has undertaken a commendable effort to analyze this aspect within the unique context of Saudi daily language usage. Additionally, the analysis of EFL learners at the university level is a distinguishing factor in the researcher's endeavor.

Existing studies have primarily examined metaphors within narrow scopes, but the researcher has expanded the scope and significance of

the study by analyzing the metaphoric competence of Saudi EFL students specifically in relation to their reading proficiency. Thus, building upon previous research and identifying gaps in the existing literature, the objective of this study is to explore the relationship between L2 learners' receptive metaphoric competence (R-MC) and their English reading proficiency at different proficiency levels.

Considering the limitations of previous research regarding EFL learners' interpretation of metaphors in their receptive metaphoric competence, the present study aims to test and analyze the receptive metaphoric competence of EFL learners in relation to their reading proficiency, focusing on learners at the university level. This empirical investigation not only examines the interpretation, familiarity, and performance of metaphors in context-provided and context-free tasks but also highlights the influence of receptive metaphoric competence on the reading proficiency of L2 EFL learners, particularly Saudi EFL learners.

Despite the considerable body of research on metaphor and metaphorical competence, a comprehensive empirical study of this nature is lacking in the field of applied linguistics, making this study unique, especially within the Saudi context. Hence, the primary objective of this study is to assess the correlation between receptive metaphoric competence and reading proficiency among Saudi EFL learners, while also examining the impact of students' language competency levels on their metaphoric competence.

1.1 Research Questions

Keeping in view the aims and objective of the study, the current study is guided by the following research questions:

RQ# 1. What is the nature of the relationship between receptive language proficiency and receptive metaphoric competence among Saudi EFL learners?

RQ# 2. To what extent does the L2 receptive metaphoric competence correlate with reading comprehension proficiency at different proficiency levels?

2. Literature Review

The use and implementation of metaphors in L2 language learning and academic writing have been subjects of theoretical consideration and practical application. Writers of literature are well-versed in employing figurative devices, including metaphors, in their works, demonstrating an understanding of the philosophical underpinnings of metaphorical language. Metaphors serve as an essential tool for communication, allowing writers to express both ordinary and profound thoughts (Chunying, 2020; Seitz, 1998). However, in any literary discourse analysis, the expression of thoughts and arguments has been done with the use of metaphor and some writers analyzed metaphors as a clear figure of speech used by writers to express their thoughts and ideas (Greene et al., 1981; Hoffman, 1997).

2.1 Metaphors – From Classical Views to New Perspectives

The metaphor was traditionally thought to be a matter of language or a set of figurative verbal terms. However, there has been a significant shift in the research and treatment of metaphors over the last few decades. Specialists in linguistics, philosophy, psychology, cognitive science, and anthropology, to name a few related areas, have all paid attention to metaphor. A. Richards was a literary critic who reopened philosophical examination of metaphor among numerous academics in the mid-twentieth century, but two considerations weighed against his views being quickly accepted. His key article on metaphoremerged well before the decline of positivism and its animosity for figurative language, and he lacked the respect accorded to full-fledged members of the philosophical community. As a result, it was philosopher Max Black who not only backed up Richards' claims but also precisely defined a new way to evaluate metaphor's function as a cognitive expression (Stallman, 1999, p.43).

2.2 Metaphoric Competence in Related Research

Since metaphors are deemed as an essential communicative as well as persuasive tool hence the need and essentiality of metaphoric competence have attained an influential position in recent decades. Scholars have conducted numerous studies analyzing metaphoric competence across different languages, employing conceptual metaphor theory as a theoretical framework. The present study aims to examine the receptive metaphorical competence of Saudi EFL learners and explore the correlation between reading proficiency and metaphoric competence.

Previous research on metaphoric competence can be broadly categorized into two areas: studies focusing on metaphorical awareness (Frank Boers, 2000; A. Deignan et al., 1997; Razzak et al., 2020), conducted in French, Dutch, and other languages, and studies specifically examining metaphorical competence itself (L. Cameron & Low, 1999; Charteris-Black, 2002; Charteris-Black & Ennis, 2001; Johnson & Rosano, 1993; Jeannette Littlemore, 2001), conducted in the Spanish language. The majority of research on metaphorical competence has primarily involved ESL learners, including studies conducted in Chinese (Yu, 1995, 2015), Hungarian (Kövecses & Szabó, 1996), Polish (Deignan et al., 1997), Hungarian again (L. Cameron & Deignan, 2006; El Refaie, 2015; Raymond W. Gibbs & Matlock, 2008; Golden, 2010), and finally, a study conducted by A. Zibin & Hamdan (2014).

2.3 Receptive and Productive Metaphoric Competences

According to Littlemore (2001a), the evaluation of metaphoric competence involves four criteria: (a) originality of metaphor production, (b) metaphor interpretation fluency, (c) the ability to locate meaning in metaphor, and (d) metaphor interpretation speed. Littlemore's classification considers item (a) as related to metaphor production and items (b), (c), and (d) as related to metaphor interpretation. Building on Littlemore's framework, Azuma (2005) proposed that metaphoric competence comprises receptive (interpretation) metaphoric competence and productive metaphoric competence.

2.4 Individual Differences Influencing Metaphor Comprehension

Several individual differences have been found to influence metaphor comprehension. Participants' IQ, conceptual understanding, vocabulary knowledge, language ability, age, and other cognitive skills have been identified as explanatory factors for differences in nonliteral statement comprehension (Cain et al., 2005; Holyoak & Stamenkov ć, 2018; Norbury, 2004). Kazmerski et al. (2003) used the Multidimensional Aptitude Battery II Test and found a linear relationship between vocabulary size, language comprehension competence, and metaphor interpretations. Age has also been found to play a significant role in metaphor understanding (Billow, 1975; Carriedo et al., 2016; Johnson & Pascual-Leone, 1989; Özçalişkan, 2005). Improvement in metaphor comprehension has been observed between the ages of 11 and 15, and between the ages of 15 and 21, which corresponds to the development of executive functions during these stages. Lee and Kamhi (1990) investigated the metaphoric competency of two groups of children aged 9 to 11, one of which had language impairments. The findings revealed that children with learning difficulties and a language impairment performed worse in metaphorical activities compared to those with only learning disabilities and no language impairment. Additionally, both groups of children with learning impairments demonstrated reduced metaphoric competence compared to typically developing children. Wiśniewska-Kin (2017) examined how 8-9 and 9-10-year-old children think about emotions, finding that the older group scored better in expressing metaphors for emotions, which was linked to improved language skills. Age and linguistic skills are thus important factors in a child's capacity to interpret metaphors.

In addition to language comprehension skills and age, participant-related characteristics such as executive functioning, creativity, and theory of mind can influence metaphor understanding. These cognitive elements will be further explored in the following subsections.

2.5 The Concept of Metaphoric Competence in the Present Study

As previously mentioned, the study of metaphoric competence involves two main aspects: (a) producing metaphors and (b) understanding metaphors, including comprehension, recognition, interpretation, and appreciation. Metaphoric competence encompasses receptive metaphoric competence (R-MC), which involves recognizing the underlying constructs and ideas behind metaphoric expressions in English, and productive metaphoric competence (P-MC), which involves using English phrases appropriately. Additionally, it includes students' ability to appreciate metaphorical figures in listening and reading contexts, as categorized by Littlemore's framework (Azuma, 2005). In this research, the main focus on metamorphic competence is Receptive metaphoric competence through interpretation. To analyze the receptive metaphorical competence of Saudi EFL learners concerning their reading proficiency researcher has adopted and modified Azuma's (2004) Receptive Metaphoric Competence (R- MC) test, including three categories of metaphors in test items.

To summarize, Metaphoric competence is a phrase that has been used to describe an individual's ability to comprehend and produce metaphors (Danesi, 1994; Flahive & Carrell, 1977; Littlemore, 2001; Littlemore & Low, 2006; Low, 1988) were the first to use the phrase "metaphoric competence," which was then studied by Gardner and Winner (1978). Danesi (1992) was the first to use the word in the field of second language acquisition. In addition, Jeannette Littlemore (2001) and Low, 1988), have proposed their interpretations of metaphoric competency components. These specific elements made it easier to incorporate metaphoric competence into language instruction methods and courses.

2.6 Receptive Language Proficiency: Listening and Reading Skills

Language skills can be divided into two categories: receptive and productive. Speaking and writing are productive skills, whereas listening and reading are receptive skills. People's receptive skills are how they extract meaning from what they see or hear. According to earlier research on the link between the two receptive skills, they are theoretically active procedures that necessitate two language processes: decoding and comprehension (O'Malley & Chamot, 1990). Decoding entails perceiving or processing an audio or printed input into a language unit, whereas comprehension necessitates the construction of meaning based on the decoded input and past knowledge of the learners (Maeng, 2006; Park, 2004).

Understanding is a two-step process that involves reading and listening. Comprehension is a crucial component of the reading process that develops from proper wordpronunciation (Dumont et al., 2016). Even if they don't understand what they're reading, those who can make the sound can read. According to this statement, pronouncing the words correctly is insufficient to comprehend what you've read. Reading competence, according to various scholars (Caccamise & Snyder, 2005; McNamara & Kendeou, 2011; Pourhosein Gilakjani & Sabouri, 2016), necessitates the ability to decode and comprehend.

Recently, the significant role that MC plays in the development of L2 proficiency has become widely recognized and been stressed by several researchers in English-speaking countries (e.g. Danesi 1992, 1995; Low and Cameron 1999; Kecskes 2000; Littlemore 2001b,2011; Littlemore and Low 2006). They argue that in L2 teaching and learning, MC is as essential as the linguistic and communicative competencies (Danesi 1992). Several scholars (Danesi 1992; Kecskes and Papp 2000; Littlemore 2010, 2011; Hashemian and Nezhad 2007) noticed that L2 learners' MC is a very low level regardless of language proficiency level during the process of examining the development of MC at a particular point in time.

Trosborg (1985) found that learners' ability to comprehend and interpret unfamiliar metaphorical expressions is related to their proficiency in the target language. Rezaei (2013) and Aleshtar (2014) also observed a strong correlation between MC and language proficiency, suggesting that L2 learners with higher language proficiency are more effective in understanding and producing metaphors.

Many Chinese experts have concluded that EFL learners' MC I favourably and strongly connected with their language competency based on their empirical studies (Zhao 2002; Dong 2006; Jinfang Shi 2012). To sum up, there are two kinds of claimson the relationship between MC

and language proficiency altogether. One claim is that MC, or certain facets of MC, is not significantly related to an individual's language proficiency. The other is that EFL learners' MC is positively and significantly related to their language proficiency. These two kinds of findings seem to be conflicting, and therefore the possible relationship between Chinese EFL learners' MC and their language proficiency is yet to be determined, particularly in context, and a multifaceted definition of MC is required.

3. Methodology

There are mainly three research paradigms: qualitative, quantitative and mixed methods (Cohen et al., 2017). Each research paradigm has its own merits and demerit. The suitability of the research paradigm depends on the research questions and hypothesis. Since the current study is an attempt to investigate the empirical relationship between receptive andmetaphoric competences, the quantitative research paradigm is found to be appropriate for the study as it intends to quantify the relationship between receptive metaphoric competence and reading proficiency of Saudi EFL learners.

The study uses a quantitative technique to collect numerical data that can be statistically evaluated to look at the link between various variables. With the use of this method, the researchers can evaluate the relationship's strength and importance, leading to a more objective and broadly applicable understanding of the phenomenon they are studying. Overall, the use of the quantitative research paradigm in this study will offer a rigorous and methodical strategy to examining the connection between reading proficiency among Saudi EFL learners and receptive metaphoric competency. The results attained through this method will add to the body of currently held information and guide next scholarly endeavors and instructional strategies in the area.

3.1 Research Design

The cross-sectional design of the study's data collection involved gathering information from a single point in time and one particular place. Using a cross-sectional design, researchers can take a quick look at a single occurrence by collecting data from a variety of individuals at one moment in time (Lodico et al., 2006). The major data for this study came from giving pupils standardized examinations on a variety of topics. Utilizing a cross-sectional design has a number of benefits. It is excellent for investigating links and patterns at a certain time since it enables the effective collecting of data within a predetermined duration. The study can get insights into the traits and behaviors of the participants at that specific time by gathering data from a diverse sample. Standardized tools were used in this study to guarantee the authenticity and dependability of the data collection procedure. These instruments are well-known and have undergone thorough development and validation processes, which makes them appropriate for measuring the desired constructs. The study promotes uniformity and comparability of the data among participants by using standardized instruments. The rigor and trustworthiness of the data collection process are increased by the use of standardized instruments. The results of this design add to the corpus of existing information and provide a framework for additional study and real-world applications.

3.2 Sample and Sampling Technique

The population of this study consisted of Saudi EFL students, who are majoring in English language and literature at a public university. Based on their receptive language proficiency, students were divided into three level groups: *Low*, *Intermediate* and *Advanced* groups. A sample of 94 students (63% of the population) was selected based on random sampling technique. A random sample is intended of being an impartial reflection of the study population (Lodico et al., 2006; Onwuegbuzie & Leech, 2015; Shields & Twycross,2008). The participants' age ranged from 18 to 29 years, reflecting the general age range of university students pursuing an English language and literature major. The purpose of adding this specific population is that the study focuses on individuals who are actively engaged in the study of English and have a certain level of proficiency in the language.

Overall, the inclusion of Saudi EFL students from different proficiency levels and the utilization of random sampling techniques enhance the external validity and generalizability of the study. The age range of the participants reflects the typical characteristics of university students in the field, ensuring the relevance and applicability of the findings to the target population.

3.3 Instruments

In this study, data were collected through 3 instruments: a) *Oxford University placement test* to measure their receptive language skills and reading comprehension, b) a receptive metaphoric competence test (MC Test battery) and c) a familiarity scale (FAMscale).

3.4 Procedure and Pilot Testing

This study was carried out at an English Language and Literature department of a public sector university in Saudi Arabia. After the instruments were prepared, permission was granted from the institution where the data were collected. Before collecting data, the pilot test was undertaken one week before the main test was put into practice in order to get rid of ambiguities in the instruction. Furthermore, validity and reliability were ensured by analyzing the answers and some adjustments were made to make this test more successful.

In order to make the empirical study, the subjects should be grouped into different language proficiency levels. Therefore, the receptive language proficiency test firstly is conducted in April 2023. The participants finished it in 90 minutes: Listening comprehension- 30 minutes and reading comprehension of 60 minutes. After the testing, the author analyzed their answers. Score criteria was made based on *Oxford University placement* test scores. If scores below 33% then low group, if score is between 33% to 67 then intermediate group and if score is above 67% then advance group. According to the pre-test results, the low level includes 30 subjects, the intermediate 30 subjects and the advanced 30 subjects. Avoiding the influence of the Receptive language proficiency test, MC-Battery is administered by the author after 2

weeks. The subjects are not permitted to look for dictionaries and other reference books. In the process of carrying out the test, recognizing the difference between it and other course evaluation tests, we explain to the subjects the significance of this study of metaphoric competence and call for their assistance before we hand out the questionnaire. They are free to decide whether to take part in the test. Since no authority was present, they are in a relatively easy state to finish the test. And we also explain to them that it is better for them to finish the questions based on their intuition, as it is generally a personal feeling. They are also warned against the loss of points caused by random guessing. And the FAMScale and MC-Battery last 90 minutes.

3.5 Data Analysis Technique

The collected data were coded and then entered into the statistical software SPSS 25.0 for analysis. Both descriptive and inferential statistical techniques were employed to analyze the data. To assess students' Receptive Language Proficiency (RLP), two tests were administered: Reading Comprehension Proficiency (RCP) and Listening Comprehension Proficiency (LCP). Descriptive statistics, including mean and standard deviation, were calculated to examine students' scores in Receptive Language Proficiency. To determine whether there was a significant difference in students' reading and listening comprehension scores, a paired t-test (dependent t-test) was conducted. With the help of this statistical test, it was possible to compare student performance in reading comprehension and listening comprehension within the same group of students.

Additionally, the students' scores were divided into three proficiency levels: advanced proficiency, intermediate proficiency, and low proficiency. A one-way ANOVA (Analysis of Variance) was carried out to look into the significant differences in receptive language proficiency test results amongst the various competence groups (i.e., advanced, intermediate, and poor). A thorough knowledge of the data was achieved through the use of both descriptive and inferential statistics, which described the central tendency and variability of the scores as well as looked at probable group differences. The study sought to identify significant differences in students' reading and listening comprehension scores as well as changes in total receptive language skills between competency groups using paired t-tests and one-way ANOVA.

4. Results

4.1 Descriptive Statistics of Receptive Language Proficiency Test

Reading Comprehension Proficiency (RCP) and Listening Comprehension Proficiency (LCP), each with a maximum possible score of 40, were used to assess students' Receptive Language Proficiency (RLP). The total possible score for the kids' receptive language proficiency was 80 as a result. Table 1 displays descriptive statistics for the total receptive language competence score, hearing proficiency scores, and reading proficiency scores. The pupils' standard deviation for reading comprehension was 5.9, while the average score was 21.4. In contrast, the average score for listening comprehension proficiency was 23.5, with a standard deviation of 7.3. These findings suggest that students exhibited relatively higher levels of proficiency in listening comprehension compared to reading comprehension. The descriptive statistics provide a summary of the students' performance in reading and listening comprehension, shedding light on the average scores and the dispersion of scores around the mean. These statistics serve as initial insights into the students' receptive language proficiency and lay the foundation for further analysis and interpretation of the data.

Table 1. Descriptive Statistics of Receptive Language Proficiency Test including Reading and Listening Scores (n=94)

Test Scores	Minimum	Maximum	Mean	Std. Deviation
Reading Comprehension proficiency(RCP)	8	35	21.4	5.9
Listening Comprehension Proficiency (LCP)	10	38	23.5	7.3
Receptive Language Proficiency (Reading+Listening)	24	66	44.9	12.3

Students were classified into three proficiency levels based on their reading scores. The distribution of students' groups and their corresponding reading score ranges are presented in Table 2. As shown in Table 2, the advanced level of proficiency encompassed students who scored between 24 and 35, the intermediate level of proficiency included students with scores ranging from 20 to 23, and scores below 20 were indicative of low proficiency. Furthermore, Table 1 displays the mean and standard deviation for reading proficiency, listening proficiency, and overall receptive language proficiency across the three proficiency levels. The grouping of students based on their reading scores provides a framework for examining the relationship between proficiency levels and various measures of receptive language proficiency. The subsequent analysis and interpretation of the data will shed light on the differences in performance among students at different proficiency levels.

Table 2. Distribution of Students Reading, Listening and overall Receptive Language Scores based on Level of Proficiency

Level of proficiency	N	Reading Score ranges		Reading Comprehension proficiency (RCP)		Listening Comprehension Proficiency (LCP)		Receptive Language Proficiency (RLP)	
		Min.	Max.	M	SD	M	SD	M	SD
Advanced	32	24	35	28.00	2.38	31.53	4.35	59.44	5.16
Intermediate	29	20	23	21.17	1.10	21.17	5.01	42.55	5.62
Low	33	8	19	15.15	3.10	17.70	3.41	32.82	4.75

Note: Min. = Minimum, Max = Maximum, M= Mean, SD = Standard deviation

Figure 1 shows the mean differences of students' scores in related to their reading, listening and overall receptive language proficiency for all three levels.
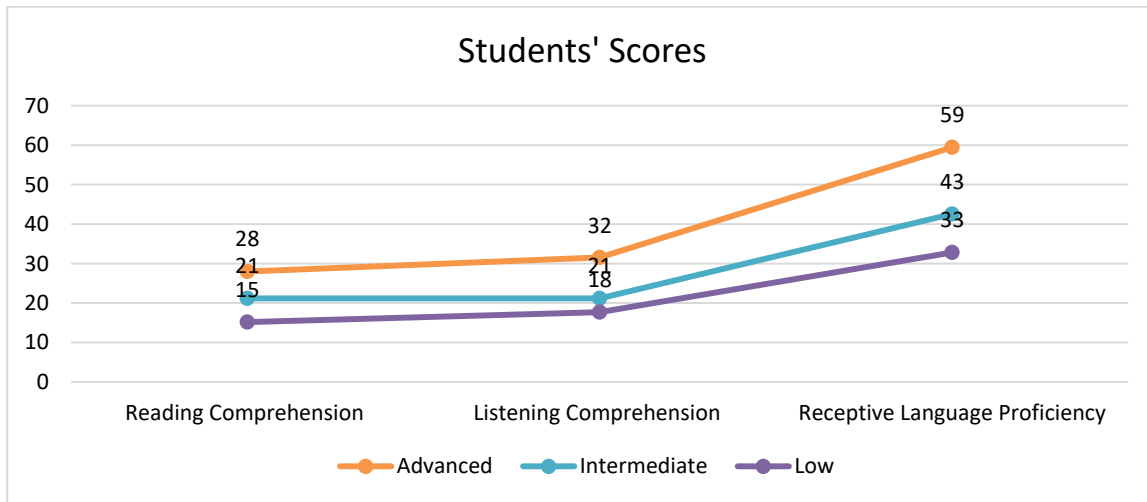

Figure 1. Students' Reading, Listening and overall Receptive Language Proficiency scores for all three levels

4.2 Significant Mean Differences in Receptive Language Proficiency Test based on Students Group

As mentioned earlier, students were grouped into three categories based on their reading proficiency. An Analysis of Variance (ANOVA) test conducted to determine the significant mean differences in students' receptive language proficiency test based on their level of proficiency in reading. Results indicated that there is a significant mean differences in students' receptive language proficiency test based on their level of proficiency in reading, $F(2, 91) = 219.62$, $p<.001$ (see Table 3).

Table 3. Analysis of Variance Results of RLP based on Students Groups

ANOVA					
Receptive Language Proficiency					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	11739.756	2	5869.878	219.642	.000
Within Groups	2431.957	91	26.725		
Total	14171.713	93			

Since there was a significant ANOVA results. Thus, a post-hoc analysis was also conducted to assess which groups is different than which group (Field, 2013). Post-hoc analysis using the LSD (Least Significant Method) revealed that all three groups are different than other groups (see Table 4).

Table 4. Post-hoc Analysis

Multiple Comparisons						
Dependent Variable: Receptive Language Proficiency						
					95% Confidence Interval	
		Mean Difference			Lower	
(I) Level of proficiency		(I-J)	Std. Error	Sig.	Bound	Upper Bound
Advanced	Intermediate	16.886[*]	1.325	0.000	14.25	19.52
	Low	26.619[*]	1.283	0.000	24.07	29.17
Intermediate	Advanced	-16.886[*]	1.325	0.000	-19.52	-14.25
	Low	9.734[*]	1.316	0.000	7.12	12.35
Low	Advanced	-26.619[*]	1.283	0.000	-29.17	-24.07
	Intermediate	-9.734[*]	1.316	0.000	-12.35	-7.12

*. The mean difference is significant at the 0.05 level.

Results indicated that Advanced level students have significant highly mean scores than intermediate level students (Mean difference = 16.87), as well with low level students (mean differences 26.62). Moreover, intermediate level students have significantly higher mean scores in receptive language proficiency than low lower students (Mean differences = 9.73). Figure 1 above shows the mean differences of each level of students.

4.3 Significant Difference between SLT and SBT

A paired-sample t-test, also referred to as a dependent t-test, was conducted to examine the significant difference between the sentence-level test (SLT) scores and the situation-based test (SBT) scores. The results of the paired-sample t-test revealed a significant difference in scores between the SLT and SBT, t(93) = 6356, p < .001 (see Table 5). Specifically, students obtained significantly higher scores on the

sentence-level test compared to the situation-based test. The mean difference in scores between the SLT and SBT for all students was 5.90. Furthermore, separate paired-sample t-tests were conducted to assess the mean differences between the SLT and SBT scores based on different proficiency groups. Similar trends were observed in the results. Specifically, the mean differences were 5.19, 7.40, and 7.03 for the advanced, intermediate, and low proficiency groups, respectively.

Table 5. Paired t test Result

| Paired | Paired Differences | | | | | t | df | Sig. (2-tailed) |
| | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
				Lower	Upper			
Sentence Level Test - Situation Based Test(	5.8989	8.7143	0.8988	4.1141	7.6838	6.563	93	0

4.4 Correlation between Receptive Language Proficiency and Receptive Metaphoric Competency

The substantial association between Saudi EFL learners' receptive language proficiency and their receptive metaphoric competency was investigated using a Pearson correlation analysis. No of what level of proficiency each student had, their overall test scores were initially utilized to evaluate the relationship. The findings of the Pearson correlation analysis, shown in Table 6, showed a substantial positive correlation between students' test scores on metaphorical competence and their receptive language skills, with a r(94) =.43, p <.001. This suggests that pupils' metaphorical competence grows as their receptive language skill increases and vice versa.

Table 6. Correlation between Receptive Language Proficiency and Metaphorical Competence Test for all Students

	Receptive Language Proficiency	Metaphorical Competence Test
Pearson Correlation	1	.429[**]
Sig. (2-tailed)		<.001
N	94	94

**. Correlation is significant at the 0.01 level (2-tailed).

Thus, the above results concluded that there is a significant relationship between Saudi EFL learners' receptive language proficiency and their receptive metaphoric competence. Hence the hypothesis -1 is supported by the data.

4.5 Correlation between Receptive Language Proficiency and Receptive Metaphoric Competency based on Students Proficiency groups

Once, it is found that there is a significant relationship between students' receptive language proficiency and metaphorical competence test for all students regardless of their proficiency level. It is therefore, important to investigate the relationship between these two competency at each level of students' proficiency (i.e, low, intermediate and advance). Thus, three set of correlation analysis were used to determine the significant relationship between students' receptive language proficiency and metaphorical competence test based on students' groups. Results indicated that there is no significant relationship between students' receptive language proficiency and metaphorical competence test for students who have advanced reading proficiency, r (94) = -.007, p<.968. Results presented in Table 7 indicated that there is a significant positive relationship between students' receptive language proficiency and metaphorical competence test for students who have intermediate reading proficiency, r (94) = .485, p<.001. Lastly, the correlation test was performed to determine the relationship for low-reading proficiency group students. Results presented in Table 8 indicated that there is no significant relationship between students' receptive language proficiency and metaphorical competence test for students who have low reading proficiency, r (94) = .054, p=.763.

Table 7. Correlation between Receptive Language Proficiency and Metaphorical Competence Test for Three groups of Students

Level of Proficiency		Receptive Language Proficiency	Metaphorical Competence Test
Advanced	Pearson Correlation	1	-0.007
	Sig. (2-tailed)		0.968
	N	32	32
Intermediate	Pearson Correlation	1	.485[**]
	Sig. (2-tailed)		0.008
	N	29	29
Low	Pearson Correlation	1	0.054
	Sig. (2-tailed)		0.763
	N	33	33

**. Correlation is significant at the 0.01 level (2-tailed).

5. Discussion

The aim of the present study was to assess the correlation between Receptive Metaphoric Competence (RMC) and Reading Proficiency (RP) among Saudi EFL Learners. The participants were undergraduate Saudi EFL students majoring in English language and literature at a public university in Saudi Arabia. A total of 94 students, aged between 18 and 29, were selected from the English language and literature department. These students were potential language instructors in the English Language Teaching department. They were chosen based on their receptive language skills and classified into three proficiency levels: low, intermediate, and advanced. Their academic curriculum included reading, writing, listening, and speaking sessions.

To address one of the research questions (RQ1) related to language proficiency, assessments were conducted. The participants were given various tests in different language domains such as listening, speaking, and reading. The scores obtained from these tests were used as measures of their L2 proficiency. Several studies have proposed prediction models for L2 learners' English proficiency based on different aspects of vocabulary knowledge. For instance, Laufer and Goldstein (2004) found that passive recall of vocabulary had the strongest association with overall English proficiency, while Zhang (2019) identified significant associations between active recall, passive recall, and active identification of vocabulary and overall English competence.

A comprehensive review of research on L2 metaphoric ability, vocabulary knowledge, and linguistic competency was conducted. Although some findings suggest a link between L2 metaphoric competence and vocabulary skills and competency, there are systematic and other methodological limitations in the existing research, leaving important questions unanswered. Moreover, the potential of G. D. Low's (1988) and Littlemore and Low's (2006a, 2006b) analogy abilities and (sub)competencies in developing assessments for metaphoric competence has not been fully explored, despite their significant contributions to the study of L2 metaphoric competence.

The results revealed that advanced-level students had significantly higher mean scores compared to intermediate-level students (mean difference = 16.87), as well as low-level students (mean difference = 26.62). Additionally, intermediate-level students had significantly higher mean scores in receptive language proficiency compared to low-level students (mean difference = 9.73). These findings suggest that the learners excelled in language acquisition through listening techniques, as they scored higher in that area. However, they struggled with reading skills, as evidenced by their lower scores in reading proficiency. Furthermore, there was a significant mean difference in students' receptive language proficiency based on their level of reading proficiency ($F(2, 91) = 219.62$, $p < .001$), indicating that a more test-oriented approach to learning was associated with lower scores.

For research question 1, tests were carried out and its details were shown above. The Pearson correlation analysis was used to find the core relationship between the Saudi EFL learner's language proficiency and their metamorphic competence. The Pearson correlation results produced in Table 6 indicate that there is a significant positive correlation between students' receptive language proficiency and their metaphorical competence test, $r (94) = .43$, $p<.001$. This concludes that when students' receptive language proficiency increases their metaphorical competence also increases and vice versa. The correlation was significant at a .01 level. By finding this our hypothesis 1 is also supported. The answer to RQ1 i.e., whether there is any sort of relationship between the Saudis learners of EFL, RLP (receptive language proficiency), and their RMC (receptive metamorphic competence) is well answered.

Learners' metaphorical competence rises in tandem with their receptive language skills, and vice versa. At the .01 levels, the connection was found to be statistically significant. Hypothesis 1 is also validated by this discovery. Three different results came for three different groups of students. According to one of the tables (table 6), no significant and appropriate relationship is found between the metaphorical test (MC) and the language proficiency of students having advanced reading proficiency. Secondly, for students of intermediate reading proficiency, there is a significant relationship found between the language proficiency and metaphorical test (MC). Their data was compiled in table 7 of the data analysis chapter. And thirdly for low reading proficiency students, the correlation tests conducted resulted in determining no appropriate relationships between the metamorphic competence and language proficiency. This data too was represented in table 7. The correlation data for condition 1, 2 and 3 are $r(94)= -0.007$, $p< .968$, $r(94)= -0.485$, $p < 0.001$ and $r(94)= 0.054$, $p= 0.763$ respectively. Thus, this answers our second research question (RQ2) i.e., What is the correlation at different levels between L2 RMC and reading comprehension proficiency. In conclusion, the analysis revealed a significant relationship between students' receptive language proficiency and their metaphorical competence test scores when considering all proficiency levels combined. However, when examining the relationship based on students' proficiency levels, different patterns emerged. For advanced level students, no significant relationship was found between receptive language proficiency and metaphorical competence. Similarly, no significant relationship was found for low level students.

The current study has significant implications in the field of English linguistics. However, there are a few limitations to the study. First, the sample size was low and data were collected from one region. Therefore, the generalizability of findings should be treated with caution. Secondly, the tests (data collection tool) were adopted from previous studies. As a result, the data collection instrument (i.e., language competency tests) may not perfectly align with the current level and context of students. Thirdly, other factors also contribute to students' test scores such as testing environment, test administration process, students' mode, students' level of test anxiety, and students' previous level of language competencies. These factors have not been statistically controlled in this study. Therefore, students' results may also be influenced by the above-stated factors. Lastly, due to time and resource constraints, the researcher did not collect data from other regional schools to cross-compare students' results.

5.1 Conclusion

The present study aimed to contribute to the field of applied linguistics in an EFL context by investigating metaphor research and addressing gaps in our current knowledge. Building on the work of Lakoff Johnson (1981), Lakoff (1987), and Johnson (1987) on Idealized Cognitive Models (ICMs) and conceptual metaphors, there has been an increasing focus on metaphor studies in education. Metaphoric competency plays a crucial role in foreign language instruction as it enables students to comprehend and use the target language effectively. However, foreign language learners often struggle with grasping and employing hidden or figurative meanings conveyed through metaphoric expressions, which extend beyond literal interpretations and encompass additional connotations. In this study, the receptive language proficiency of the students was assessed through listening comprehension and reading comprehension tests. Both descriptive and inferential

statistics were employed to analyze the data and address the research questions. The data underwent comprehensive analysis using various statistical tools and principles, allowing for generalizations to be made to a larger population. The findings of this study offer valuable insights into the field of L2 metaphoric competency research. Firstly, while the theoretical frameworks of Low (1988) and Littlemore and Low (2006a, 2006b) have been established for 29 and 11 years, respectively, their application in test development and measurement of metaphor-related skills and sub-competencies has been limited. This study addresses this gap by reviewing existing approaches to eliciting and assessing metaphor-related abilities and sub-competencies, thereby enhancing our understanding of the factors that influence L2 metaphoric competence as measured, as well as the predictive power of L2 knowledge and overall proficiency in relation to L2 metaphoric competence.

Declarations

Ethical Approval

The author obtained approval to conduct the study from the Deanship of Scientific Research, Qassim University.

Competing interests

The author declares that they have no competing interests.

Authors' contribution

Not Applicable.

Funding

Not Applicable.

Availability of data and materials

Data are available upon reasonable request from the author.

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References

Azuma, M. (2005). *Metaphorical Competence in an EFL Context*. University of Nottingham. Retrieved from https://www.amazon.com/Metaphorical-Competence-EFL-Context-Japanese/dp/488713648X

Caccamise, D., & Snyder, L. (2005). Theory and pedagogical practices of text comprehension. *Topics in Language Disorders*, *25*(1), 5-20. https://doi.org/10.1097/00011363-200501000-00003

Cohen, L., Manion, L., & Morrison, K. (2017). Research Methods in Education. In *Research Methods in Education*. routledge. https://doi.org/10.4324/9781315456539

Danesi, M. (1992). Metaphorical Competence in Second Language Acquisition and Second Language Teaching: The neglected dimension. In J. E. Alatis (Ed.), *Georgetown University round table on languages and linguistics (pp* (Vol. 7992, pp. 489-500). Georgetown University Press.

Danesi, M. (1994). Recent Research on Metaphor and the Teaching of Italian. *Italica*, *71*(4), 453. https://doi.org/10.2307/479665

Deriso, D. (2011, March 13). *Using Reason and Metaphor to Reach Beyond the Senses | The Artful Brain | Learn Science at Scitable*. Nature. Retrieved from https://www.nature.com/scitable/blog/the-artful-brain/metaphor/

Dumont, R., Willis, J. O., & Walrath, R. (2016). Clinical Interpretation of the Woodcock-Johnson IV Tests of Cognitive Abilities, Academic Achievement, and Oral Language. *WJ IV Clinical Use and Interpretation: Scientist-Practitioner Perspectives*, 31-64. https://doi.org/10.1016/B978-0-12-802076-0.00002-5

Field, A. (2013). Andy Field - Discovering Statistics Using IBM SPSS Statistics. In *Lavoisier.Fr* (4th ed.). SAGE Publications Ltd. Retrieved from http://www.lavoisier.fr/notice/frMJO3AKKA6RIXLO.html%5Cnpapers2://publication/uuid/01872072-935D-4D89-AB3D-D7F41393EC7D

Flahive, D., & Carrell, P. (1977). Lexical expansion and the acquisition of metaphoric competence. *11th Annual Mid-America Linguistics Conference*.

Gardner, H., & Winner, E. (1978). The Development of Metaphoric Competence: Implications for Humanistic Disciplines. *Critical Inquiry*, *5*(1), 123-141. https://doi.org/10.1086/447976

Kökcü, Ş., Ortaçtepe Hart, D., & Hart, D. O. (2022). Turkish EFL learners' interpretation of metaphors [İhsan Doğramacı Bilkent University]. In *International Review of Pragmatics* (Vol. 14, Issue 1). https://doi.org/10.1163/18773109-01401004

Laufer, B., & Goldstein, Z. (2004). Testing Vocabulary Knowledge: Size, Strength, and Computer Adaptiveness. *Language Learning*, *54*(3), 399-436. https://doi.org/10.1111/J.0023-8333.2004.00260.X

Littlemore, J. (2001). Metaphoric Competence: A Language Learning Strength of Students with a Holistic Cognitive Style? *TESOL Quarterly*, *35*(3), 459. https://doi.org/10.2307/3588031

Littlemore, J., & Low, G. (2006). Figurative thinking and foreign language learning. In *Figurative Thinking and Foreign Language Learning*. Palgrave MacMillan. https://doi.org/10.1057/9780230627567

Lodico, M. G., Spaulding, D. T., & Voegtle, K. H. (2006). *Methods in Educational Research: From Theory to Practice* (Vol. 28). John Wiley & Sons. Retrieved from http://books.google.com/books?id=G9D81mh9xCAC&pgis=1

Low, G. D. (1988). On teaching metaphor. *Applied Linguistics*, *9*(2), 125-147. https://doi.org/10.1093/applin/9.2.125

Maeng, U. (2006). *Comparison of L2 Listening and Reading Comprehension Strategies : A Case Study of Three Middle School Students*. *9*(2), 471-500. https://doi.org/10.29221/jce.2006.9.2.471

McNamara, D. S., & Kendeou, P. (2011). Translating advances in reading comprehension research to educational practice. *International Electronic Journal of Elementary Education*, *4*(1), 33-46.

O'Malley, J. M., & Chamot, A. U. (1990). Learning Strategies in Second Language Acquisition. In *Learning Strategies in Second Language Acquisition*. Cambridge University Press. https://doi.org/10.1017/cbo9781139524490

Onwuegbuzie, A., & Leech, N. (2015). Sampling Designs in Qualitative Research: Making the Sampling Process More Public. *The Qualitative Report*, *12*(2), 238-254. https://doi.org/10.46743/2160-3715/2007.1636

Park, G.-P. (2004). Comparison of L2 Listening and Reading Comprehension by University Students Learning English in Korea. *Foreign Language Annals*, *37*(3), 448-458. https://doi.org/10.1111/j.1944-9720.2004.tb02702.x

Pollio, H. R., & Smith, M. K. (2019). Metaphoric competence and complex human problem solving. In R. P. Honeck & R. P. Bums (Eds.), *Psychology Library Editions: Speech and Language Disorders* (Vol. 3, pp. 365-392). Lawrence Erlbaum. https://doi.org/10.4324/9780429432866-15

Pourhosein Gilakjani, A., & Sabouri, N. B. (2016). How Can Students Improve Their Reading Comprehension Skill? *Journal of Studies in Education*, *6*(2), 229. https://doi.org/10.5296/jse.v6i2.9201

Shields, L., & Twycross, A. (2008). *Sampling in quantitative research.* Paediatric Nursing. https://doi.org/10.7748/paed.20.5.37.s30

Wilson, K., & Kearns, M. S. (1989). Metaphors of Mind in Fiction and Psychology. In *South Atlantic Review* (Vol. 54, Issue 3). https://doi.org/10.2307/3200187

Zhang, Y. (2019). The Effect of Metaphorical Competence on Students' Writing Skills. *Creative Education*, *10*(01), 151-155. https://doi.org/10.4236/CE.2019.101011

Zhao, Q., Yu, L., & Yang, Y. (2014). Correlation between receptive metaphoric competence and reading proficiency. *English Language Teaching*, *7*(11), 168-181. https://doi.org/10.5539/elt.v7n11p168