

## Exploring Metaphors And High-Order Thinking Skills In Student's Writing: A Systematic Literature Review With Cultural Diversity Considerations

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### *Abstract*

The purpose of this study is to investigate metaphors and high-order thinking skills in writing, drawing from previous research and employing a Systematic Literature Review (SLR) approach using Fink's (2005) model. This examination aims to comprehend the cognitive aspects associated with metaphorical creation as a thinking element in language. Furthermore, the study seeks to integrate cultural diversity into the analysis. The findings reveal a wide range of metaphors utilized in diverse forms of writing, including newspapers, scientific literature, discourse, film, linguistics, cultural contexts, proverbs, second language learning, and communication. These metaphors encompass various dimensions such as conceptual, lexical, visual, and syntagmatic aspects. Importantly, the results demonstrate that metaphors provide a means to conceptually frame high-order thinking skill elements in writing, enabling students to effectively analyze, utilize, and interpret information. Considering cultural diversity, it is essential for educators and practitioners to incorporate semantic elements that reflect the cultural contexts of students in their writing. By integrating culturally diverse metaphors and concepts, students can produce written work that demonstrates not only high-order thinking skills but also cultural sensitivity and inclusivity. This integration can be facilitated through an interdisciplinary approach that combines educational and

semantic perspectives. The implications of this study lie in the development of an effective strategy for understanding high-order thinking skills in an interdisciplinary manner, encompassing education, semantics, and cultural diversity. The knowledge gained from exploring metaphorical approaches and semantics can assist teachers in examining the relationship between high-order thinking skill elements and students' cognition. Moreover, it offers a valuable guideline for exploring creative and critical ideas within students' written work, while promoting cultural understanding and appreciation. In conclusion, this study contributes to the advancement of research on metaphors and high-order thinking skills in writing, emphasizing the importance of cultural diversity and semantic integration. By recognizing and incorporating diverse cultural perspectives, educators can foster an inclusive learning environment that empowers students to excel in their thinking and writing abilities.

Keywords: High-order thinking skills, metaphors, semantics, systematic literature review, cultural diversity, interdisciplinary approach.

## INTRODUCTION

Writing skill can help students to externalize and organize ideas in their minds into a discourse understandable to readers. Kozlow and Bellamy (2004), Hajimia et al. (2019a, 2019b) assert that writing involves complex, high-order thinking, entailing writers to have a strong imagination, feelings, and cognition. Furthermore, Beyer (1988) argues that thinking process has a strong relationship with the writer's proclivity and willingness to engage in writing essays. From the learning perspective, students are encouraged to think critically to produce a concise conclusion from the overall idea in their writing. Bloom et al. (1956) contend that high-order thinking skill (high-order thinking skill) entails students to manipulate information and ideas to interpret their meanings and implications. Likewise, Mohamad (2006) asserts that such skill challenges students to interpret and analyze information.

Armed with such skill, students can understand, interpret, analyze, and manipulate information more effectively (Hajimia, 2020, 2023). Thus, they need to engage in a heuristic thinking process during the teaching and learning process using high-order thinking skill. In the context of Malay language learning, such a skill is vital in determining a student's ability in transferring information involving aspects of not only speaking and communication skill but also essay writing skill. Essay writing can help students to apply knowledge, skills, and values in multiple situations, especially in writing conclusions by summarizing the main ideas conveyed by students. In this regard, Nagappan (2002) argues that high-order thinking skill is the highest level of the hierarchy of the cognitive thinking process.

Previous studies of the use of high-order thinking skill elements in the teaching and learning process only focused on pedagogical aspects, various essay-writing genres, and the use of eloquent expressions. Typically, most studies on high-order thinking skill were based on the use of learning tools, such as I-Think and I-Mind Map, to highlight the infusion of high-order thinking skill elements in the teaching and learning process in the classroom (Sarudin, et al. 2019b).

As such, to ensure students can produce quality essays, the above aspects need to be scrutinized from aspects relating to their principles and measurements, which serve as an assessment element of high-order thinking skill. From the standpoint of novelty, the aspect of meanings is also an important element of high-order thinking skill that reflects highlight students' critical thinking skills. In other words, high-order thinking skill can be analyzed from a semantic approach such that implicit meanings can be examined through students' written essays (Permayakova & Utkiana, 2016; Fredrikson & Pelger, 2018; Surip & Mulyadi, 2019), the examination of which can be performed through metaphoric conceptualization.

Despite a plethora of studies on high-order thinking skill, research on high-order thinking skill in the field of Malay language and semantics, particularly cognitive semantics, which concerns meanings and cognition in the lexical creation. Studies on the infusion of high-order thinking skill elements from the semantic perspective is lacking, especially those that focus on examining the creation of metaphors in essay writing. Admittedly, there have been some studies on such matter (Zheng & Song, 2010; Hoang, 2014; Anderson, 2011; Coegnarts & Kravanja, 2012; Fredrikson & Pelger, 2018; Permayakova & Utkiana, 2016; Surip & Mulyadi, 2019; Puschmann & Burgees, 2014), but the description in developing high-order thinking skill elements through essay writing has not been empirically investigated.

A metaphor is an abstract, intangible concept that can be understood by close scrutiny through thinking and experience (Fauconnier 1985, 1997, 2002). In general, a metaphor refers to the use of eloquent, appealing linguistic style in writings or conversations as a means to interpret individuals' creative thinking when they communicate (Ahmad, 2012). In the field of cognitive semantics, Lakoff and Johnson (1980) proposed the Idealized Cognitive Model that outlines five basic concepts, namely image scheme, metaphoric conceptualization, metonymic conceptualization, proposition, and symbols. Analytically, metaphoric conceptualization helps explain the thinking involved to form lexicons. They also argue that metaphors can be conceptualized by multiple aspects, such as emotional conceptualization, demeanors, and spoken words, and produce a conceptual space. As such, it is imperative for practitioners to acknowledge that high-order thinking skill elements in students' writings entail descriptive analysis of multiple media,

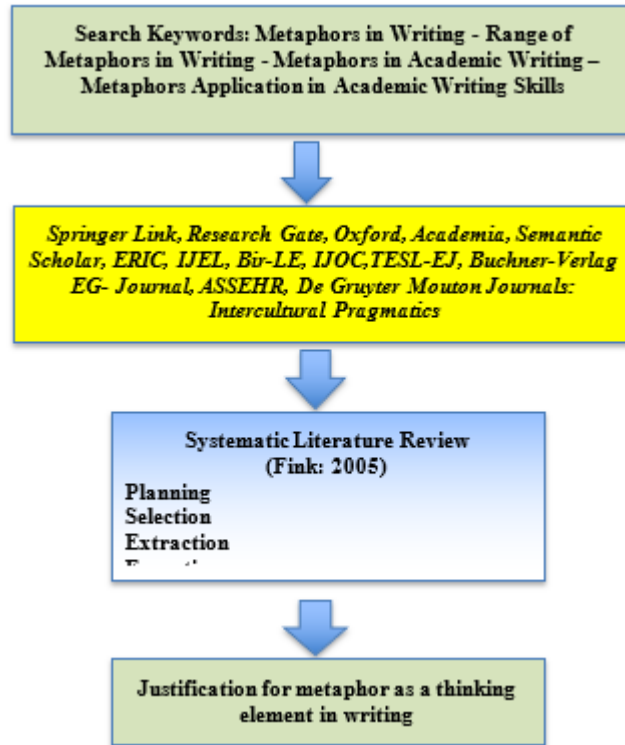
especially in semantics, to explore students' genuine ideas. To help analyze this issue in detail, previous studies of the use of metaphors in writing works need to be critically scrutinized through a systematic literature review.

## **METHODOLOGY**

This study used the systematic literature review to examine previous studies of aspects of metaphors relating to the above research questions. In this study, the researchers examine the extent and scope of such studies with respect to the use of metaphors in writings. For this review, articles published on several online databases were filtered to select relevant articles by using several keywords, notably 'metaphors in writing', which yielded 1,000 articles. Further filtering was performed using the keyword 'metaphors in academic writing', which trimmed the above number to 100 articles. To select more appropriate articles, the scope of the online search was restricted by using the keyword 'metaphors application in academic writing skills', which saw only 15 articles deemed relevant with the focus of this study, namely the formation and development of a variety of metaphors employed in academic writing.

All the selected articles were accessed from several leading online databases, namely Springer Link, Research Gate, Oxford, Academia, IJOC.org, Semantic Scholar.org, Eric.edu, IJEL, TESL-EJ, ASSEHR, Bir-LE Journal, Buchner-Verlag eG- Journal, and De Gruyter Mouton Journals: Intercultural Pragmatics. The contents of articles were analyzed based on several characteristics, namely planning, selection, extraction, and execution, to understand the definitions and terms relating to cognitive aspects involved in the creation of metaphors. In particular, previous studies were analyzed systematically and structurally to highlight the knowledge concerning metaphors and its relationship with high-order thinking skill elements. Figure 1 summarizes the filtering process carried out to identify the relevant articles.

**Figure 1.** The methodological framework of the systematic literature review



(Fink: 2005)

According to Fink (2005), the systematic literature review is a systematic, clear, and comprehensive review process or a survey capable of identifying, analyzing, and synthesizing studies that have been completed and recorded by researchers or scholars. This survey method is performed to provide a clear picture of the content and quality of a particular study. Future researchers can use such a method to conduct new studies guided by aspects that have been used in earlier studies. Petticrew and Robert (2006) assert that a systematic survey of literature serves as a tool to examine the process of reviewing relevant literature to highlight the quality of previous studies. Fink (2005) outlined eight (8) main steps of this method, which can be divided into four (4) categories, namely planning, selection, extraction, and execution.

In the planning process, the reviewer has to clearly identify the purpose of the literature review to help readers understand explicitly the aim of a study. Then, protocol and training will be performed that the reviewer will have to agree with detailed procedures to ensure consistency in the implementation of the survey. Information gathered therefrom has to be explicit, comprehensive, and usable in a clear situation (Fink, 2005).

In the selection process, the reviewer needs to clearly explain the detail of the search of the literature and justify such a process. A filtering process is then followed to enable the reviewer to determine the type of a selected study that helps him or her to carry out the review process such that studies not relevant with the scope of his or her study will be discarded. In this respect, the reviewer needs to state the reasons for not selecting such studies, while justifying those that have been chosen for further analysis (Fink, 2005).

In the extraction process, the reviewer needs to state the clear criteria to appraise the quality of articles. Specifically, all selected articles will be filtered based on the research methodologies used in the reported studies. Later, the extraction process is followed to systematically extract relevant information, and data from all selected studies (Fink, 2005). In the execution process, the process of synthesizing is performed to combine all extracted information or facts either quantitatively or qualitatively or both. Finally, the process of reviewing the writings is carried out based on standard principles. As highlighted, it is important that the process of literature review be reported in detail with sufficient data (Fink, 2005).

In this study, the review of previous studies was performed based on the mapping of the systematic literature review to highlight the analyses used in such studies descriptively and critically. The selected studies were found to contain aspects of metaphors involving discourses, second-language learning, and cognitive thinking. Through a detailed analysis, the selected previous studies could be categorized into several perspectives of discourse, such as metaphors in newspapers, discourses, second-language learning, films, cultures, proverbs, scientific writing, and linguistics. Table 1 summarizes the types or categories of metaphors discussed in the selected articles, which were obtained from the chosen online databases.

**Table 1:** The categories of metaphors in the selected articles

<b>Category of study</b>	<b>Online databases</b>	<b>Descriptive analysis based on the keyword 'metaphors application in academic writing skills'</b>	<b>Level of analysis of the SLR process</b>
Metaphors in newspapers	Semantic Scholar.org	Conventional and novel metaphors	Extraction
	IJOC.org	Conventional metaphors (conceptualization)	Extraction
Metaphors in scientific writing	Research Gate	Metaphors in texts	Planning
	Springer Link	Active and non-active metaphors	Planning

		ASSEHR	SFL-based metaphors	Selection
Metaphors discourses	in	ERIC.edu	Linguistic metaphors	Extraction
Metaphors second-language learning	in	TESL-EJ Oxford	Pedagogical metaphors Metaphors in writings	Selection Planning
Metaphors communication	in	IJEL Bir-LE Journal	Conventional metaphors (conceptualization) Metaphors in human communication	Selection Extraction
Metaphors proverbs	in	Research Gate	Metaphors in proverbs or languages	Planning
Metaphors in films		Buchner-Verlag Journal Academia.edu	eG- Conceptually structured and image metaphors Verbal and non-verbal metaphors	Extraction Selection
Metaphors cultures	in	Degruyter Journals: Intercultural Pragmatics	Conceptual metaphors in cognitive linguistics	Execution
Metaphors linguistics	in	Springer Link	Spatial, temporal, and physical metaphors	Extraction

## FINDINGS

The descriptive analysis of previous studies based on the SLR mapping proposed by Fink (2005) revealed there were nine categories of metaphors, namely metaphors in newspaper, metaphors in scientific writing, metaphors in discourses, metaphors in second-language learning, metaphors in communication, metaphors in films, metaphors in proverbs, metaphors in cultures, and metaphors in linguistics, the details of which are highlighted in the following subsections.

### Metaphors in Newspapers

The examination based on this perspective was performed with the aim to determine the extent of the analysis of metaphors found in newspapers, enabling the researchers to examine the metaphoric process carried out in terms of the operational approach used by writers or authors. The researchers sought to understand the metaphoric process employed by writers or authors within the context of different cultural perspectives. This undertaking provides valuable insights for researchers interested in comprehending the formation of metaphorical

concepts in newspapers while considering the influence of cultural diversity. The analysis was performed at the level of extraction of the SLR process to highlight the creation of conventional metaphors. Articles based on this category were accessed through the online academic database Semantic Scholar. A study by Anderson (2011) was carried out to examine the use of metaphors in sports news in two English dailies, namely The Telegraph and The Mirror. Specifically, the aim of this study was to analyze the differences in the creation of a range of metaphors appearing in both dailies. In this present study, 20 sports articles penned by four different writers were gathered from both newspapers and analyzed to determine whether the type of metaphors was either conventional or novel.

In principle, conventional metaphors refer to those using words that carry a meaning that is different from the literal meaning. In the context of the Malay language, such metaphors refer to a figure of speech, such as proverbs, similes, or idioms. Additionally, conventional metaphors are referred to as 'dead metaphors' due to their fixed forms and functions that have been widely accepted by speakers of a certain language (Knowles & Moon, 2006). Through its news publication, The Mirror has classified this type of metaphors as those consisting of lexicons that convey implicit meanings. On the other hand, novel metaphors consist of several primal concepts as stated by a number of scholars, including Deignan (2000), Semino (2005), and Aitchison (2007) as follows:

"as expressions that are used both unconventionally outside of the conceptual mappings they are normally associated with".

(Deignan, 2005:35)

"...as well as in relation to other, more conventional conceptual metaphors."

(Semino, 2005:229)

"... novel metaphors do not automatically become set in place once uttered or written".

(Aitchison, 2007:180-181)

As analyzed, The Telegraph have published many news items consisting of conventional metaphors. Revealingly, it was found that this type of metaphor has been widely used in many texts in newspapers to convey implicit meanings, whereas novel metaphors have been used to compose creative, complex ideas that change with time. To date, several researchers have studied a number of metaphoric elements contained in several recent online news, such as that carried out by Puschmann and Burgess (2014), the findings of which showed that such elements were limited and not quite explicit. From the developmental aspect of metaphors, their study revealed the development of two types of structural metaphors based on two large data, namely 'Big Data is a



Nourishment’ and ‘Big Data is a Force’. In general, such metaphors configure a particular concept metaphorically based on other concepts (Lakoff & Johnson, 1980). In the present study, the researchers examined only the expressions of both metaphors based on the structural metaphor of the Conceptual Metaphor Theory.

By considering cultural diversity, these metaphors incorporate diverse perspectives and conceptualizations that deviate from conventional forms.

By incorporating the concept of cultural diversity into the analysis of metaphors in newspapers, this study contributes to a deeper understanding of how different cultural contexts influence the formation and usage of metaphoric language.

#### Metaphors in Scientific Writings

In this study, the analysis aimed to explore the developmental aspect of metaphors in the scientific writings of culturally diverse students in higher learning institutions. The researchers sought to examine how students from different cultural backgrounds projected their creative ideas and thinking when composing academic essays. Specifically, the analysis was performed at the level of planning of the SLR process. Relevant articles were accessed from one of the leading online databases, namely Research Gate, to highlight studies concerning metaphors in scientific writings. For example, Permayakova and Utkiana (2016) conducted a study that examined the impact of professional efficiency of EFL students on their academic writing. Likewise, the present study was carried out to analyze students’ efficiency in academic writings involving several domains, such as their knowledge of terms and concepts. Cultural diversity played a significant role in this analysis, as it influenced the students’ perspectives and conceptualizations within their scientific writings.

The Conceptual Metaphor Theory was used to analyze lexicons produced by the EFL students in their writings. To ensure a smooth flow of the undertaking, this study was carried out in several phases. In the first phase, the researchers analyzed students’ academic discourses in their entirety to determine the directions and aims of their works. In particular, this study was aimed at the analysis of metaphoric conceptualization based on Kovocses’s (2005) study and the application of the five levels of metaphoric analysis proposed by Steen (2009), which refer to two main domains, namely the source domain and target domain. To guide the study, the researchers used the mapping of metaphors based on the taxonomic model proposed by Musolff (2006).

The analysis of these scientific writings was performed at the level of planning of the SLR to help examine the creation of metaphors based on structured training and teaching. The articles of this category were accessed from the international online database Springer Link.

Fredrikson and Pelger (2018) examined the effectiveness of the use of metaphors among science undergraduates in a Swedish university. Specifically, they examined on how the use of metaphors influenced students' writings in scientific articles and the extent of their impacts on students' understanding.

As highlighted from the analysis, their study was primarily focused on the creation of active and non-active metaphors. According to Black (1993), such metaphors can be divided into three main components, namely active metaphors, immersive metaphors, and extinct metaphors. In this present study, the comparison between aspects of metaphors was made in terms of the creation of active and non-active metaphors, such as immersive metaphors, and extinct metaphors.

In this present study, the analysis of this type of metaphors was performed at the level of selection of the SLR process using the Conceptual Metaphor Theory proposed by Lakoff and Johnson (1980). The articles of this category were accessed from the international online database *Advances in Social Science, Education, and Humanities Research (ASSEHR)*. Rosa et al. (2018) conducted a study that focused on the application of metaphors in scientific writings written in English. Specifically, they used Systematic Functional Linguistics (SFL) technique to examine the quality of dissertations written by doctoral students of the Northern Sumatera University. The use of this technique helped them to examine the infusion of metaphoric concepts in such texts in terms of the lexical density of a clause. Their research findings showed that high lexical density and dense clauses could help produce quality texts. Their findings also showed that the process of nominalization could effectively facilitate the use of metaphors to help students to produce quality writings. Hence, such findings suggest that the nominalization process based on the SFL technique is an effective method to help students produce quality scientific writings in English while considering cultural diversity.

#### Metaphors in Discourses

In this study, the researchers explored the conceptualization of ideas in texts across diverse cultural discourses conveyed in various situations. In particular, the researchers examined the effectiveness of such texts in projecting metaphoric ideas by identifying the lexical integrity of such texts while considering the cultural diversity embedded within them. The analysis of studies was performed at the extraction level of the SLR process, as it can extract lexical data from the selected articles more effectively. The articles of this category were accessed from the international online database *Educational Resources Information Centre (ERIC)*. Zheng and Song (2010) conducted a study that examined the analysis of metaphors in academic discourses. They concluded that metaphors were a powerful language tool to develop robust lexicons.

In this present study, three previous studies involving several analyses of metaphors were examined to determine their effectiveness on the interaction between students and institutions, perceptions of teachers' teaching ability, and student learning. As revealed by the examination, it can be argued that in the cognitive-linguistic field, metaphors represent not only the beauty of a language but also serve as a cognitive tool that encompasses the daily use of such a language. Arguably, languages and thinking correlate with one another to develop new metaphors based on new, complex, and abstract concepts. The present study also revealed that the extraction of lexical data carried out by previous researchers was based on general mapping that might result in certain ambiguities. Therefore, the current study was conducted to address this issue and provide a more nuanced understanding of the cultural diversity inherent in metaphoric expressions.

#### Metaphors in Second-Language Learning

The analysis conducted in the selected studies on the use of metaphors in second-language learning recognized the importance of cultural diversity and its influence on language acquisition. This analysis was carried out at the level of selection of the SLR process, and the articles in this category were accessed from the international online database Electronic Journal of English as a Second Language (TESL-EJ). Several previous studies that used the Conceptual Metaphor Theory were chosen to be analyzed to gather data regarding the creation and use of metaphors in educational contexts. In this present study, the use of metaphors in second-language learning was analyzed from linguistic, thinking, and communication aspects. In the field of stylistic languages, metaphors are considered an important component of a language spoken every day.

For example, a study by Hoang (2014) was carried out to examine the use of metaphors in a specific context involving second-language learning. The aim of his study was on analyzing the use of metaphors among Chinese students who were learning English as a second language in a college. It was observed that the use of metaphors had a huge impact on the students' ability to read. Littlemore (2004) found that there were five methods to enhance the process of understanding of metaphorical concepts in a language, namely the identification of a target domain, the integrated activation of source knowledge, fluency, analogical reasoning, and image formation.

From the developmental perspective, this present study examined the creation of metaphors from the pedagogical standpoint and the relationship of grammatical elements with their formation. In this respect, the researchers tend to agree with Littlemore and Jeanette (2004), Kovocses (2008), and Lakoff and Johnson (1980), who assert that the process of understanding metaphors is governed by different physiological levels. Such assertion seems at odd with other studies that

involved the use of Metaphoric Identification Analysis, such as Pragglejaz Group (2007), asserting that the formation of metaphors is not structurally autonomous.

The analysis also was performed at the level of planning of the SLR process on the articles selected from Oxford database. The analysis involved Littlemore et al.'s (2013) study that focused on the use of metaphors in second-language learning among students with varying levels of ability. Specifically, the main aim of their research was to examine metaphoric characteristics that could differentiate students' writings by classifying the use of metaphors based on the levels of CEFR, which ranged from 'A1' to 'C2'. In their study, they used the Metaphor Identification Procedure (Pragglejaz Group, 2007) and the MIPVU model (Steen, 2007) to identify metaphors used in 200 essays written by Greece and German students (who were learning English as a second language) based on such levels. The findings highlighted the diverse nature of metaphoric expressions written by the students, further emphasizing the influence of cultural diversity in second-language learning.

#### Metaphors in Communication

The analysis of this type of metaphors was focused on classifying metaphoric ideas found in utterances or speeches across diverse cultural discourses conveyed in various situations. This focus helped the researchers to examine the relationships between the communication process and the creation of metaphors. Specifically, the analysis was performed at the level of extraction to examine the forms of metaphors in communication texts. Articles discussing this type of metaphors were accessed from the online database Bir-LE Journal. For example, an article authored by Surip and Mulyadi's (2019) is concerned with using conceptual metaphors in human communication. They specifically examined the term 'communication' based on a conceptual metaphor in various communication data, which were gathered based on specific contexts in several messages.

As revealed, their study was dedicated to examining the classification of image metaphors, namely metaphors that were created with abstract and concrete human and animal characteristics and synthesized metaphors as proposed by Ullman (1962). For example, the phrase 'komunikasi hati' ('heartfelt communication') can be clearly seen as a human metaphor. By contrast, the phrase 'rumah komunikasi' ('communication house') can be construed as being either an abstract or a concrete metaphor. Overall, their study was directed toward analyzing metaphors based on Ullman's (1962) approach, which can help provide a new perspective to readers regarding a wide range of culturally diversified communication contexts.

### Metaphors in Proverbs

The analysis of this type of metaphors helps provide greater insight into the extent to which an individual's ideas and thinking can influence the formation of metaphors with implicit meanings from various cultural perspectives. In this study, the researchers analyzed relevant articles at the level of planning of the SLR process to examine the use of such metaphors that were created through formal training and learning. The selected articles were accessed from the online database Research Gate. Chen and Lai (2013) carried out a study to examine the effectiveness of the implementation of the mapping of conceptual metaphors in the learning of English proverbs among 19 Taiwanese undergraduates. In their study, every student was instructed to prepare a creative English essay with 'happy' and 'anger' concepts, the conceptualization of which was critically analyzed. These researchers use the 'Ant Conc' software to determine the frequencies of the two metaphorical concepts in the essays. The mapping of such metaphors showed that the students expressed the concept of 'Anger is Fire' more than the concept of 'Anger is a Heat in a Fluid Container', signifying that students' understanding of such metaphors was influenced by their first language.

Essentially, their study was primarily focused on analyzing metaphors in the teaching and learning of English proverbs based on two theoretical approaches of conceptual metaphors recommended by Lakoff and Johnson (1980) and Kovocses and Szabo (1996). Their studies revealed such proverbial metaphors were mainly orientational and ontological metaphors rather than structural metaphors. Thus, it is preferable to examine every phrase and sentence written by students by performing a general mapping of their contexts. The above findings signify that the analysis of conceptual metaphors has to focus on the three types of culturally diversified metaphors, namely ontological, orientational, and structural metaphors, given that students' essays may contain a diverse range of linguistic expressions.

### Metaphors in Films

The analysis conducted in this category of metaphors recognized the significance of cultural diversity in the film industry. This analysis was performed at the extraction level of the SLR process, extracting data from films. The relevant articles were accessed from the online database Academia. Coegnarts and Kravanja (2012) conducted a study that examined the influence of conceptual metaphors on the film industry by looking at how they were produced and identifying differences among structural, conceptual, and image metaphors. The approach of conceptual metaphors, proposed by Lakoff and Johnson (1980), was used to analyze verbal, visual, and multimodal data, which helped reveal six classifications of characters that facilitate the process of identifying and interpreting metaphors in films, namely type (structural-conceptual vs. image), quality (abstract vs. concrete), modality (monomodality vs.

multimodality), direction (symmetry vs asymmetry), spatiality (homospaciality vs. non-homospaciality), and reality (filmic vs. anti-filmic).

The study was carried out to examine the differences between visual metaphors and filmic metaphors, scrutinize two types of structural-conceptual metaphors in films, and discuss the manifestation of monomodal and multimodal image metaphors. Guided by Lakoff and Johnson's (1980) views concerning the approach of conceptual metaphors, the present researchers hold the opinions that most film makers consistently rely on sensorial-motor experiences (called as schematic images) to understand abstract concepts.

Arguably, interactions between such image metaphors help give rise to other structural-conceptual metaphors. As observed, previous studies were mainly concerned with highlighting clear, systematic ideas in films that were heavily influenced by social experiences encompassing time and space. The analysis of visual or image metaphors revealed that most were godlike metaphors, personified metaphors, concretized metaphors, animal metaphors, and plant metaphors. As such, this study can help explain several models of image metaphors by examining the differences between such metaphors and structural-conceptual metaphors. Overall, the findings of this study help highlight the significant impact of the culturally diversified Conceptual Metaphor Theory in the study of films, which can inspire more studies on the subject matter.

#### Metaphors in Cultures

From the cultural perspective, this study was conducted to examine the relationships among cultural contexts involved in the creation of metaphors. The analysis was performed at the level of execution of the SLR process involving several articles accessed from the online database De-Gruyter Mouton Journals: Intercultural Pragmatics. A study by Antunano (2013) attempted to examine the relationships between conceptual metaphors and cultures in cognitive linguistics through the mapping of two different cultural contexts. Specifically, his study aimed at examining the relationships between cultural contexts and metaphors used in daily human interactions in specific languages. The mapping focused on sensorial motor, culture, and social experiences of such speakers. His study was premised on the notion that cultures are the main concept to explain the emergence of metaphors from human knowledge.

#### Metaphors in Linguistics

This analysis of this type of metaphors was performed at the level of extraction of SLR to determine the extent of the impact of metaphoric conceptualization in linguistics by focusing on several dimensions. Relevant articles were accessed from the online database Springer Link.

Huang and Tsing Tse (2017) undertook a study to examine the relationships between linguistics and spatial-temporal metaphors. Previous studies showed that English speakers used such metaphors to represent temporal and spatial dimensions. In their study, they found that Greek speakers relied on such metaphors to denote time. They also analyzed speeches made by Mandarin, Greek, and Spanish speakers, which showed the latter used directions and distances to describe the concept of time. Through this study, it is evident that people who speak in different languages use dissimilar referential frames to convey the concept of time, with each group having a temporal space that is aligned with the egocentric coordination, including front, rear, left, and right positions.

Overall, the above studies were mainly focused on examining metaphoric conceptualization of space, time, environments, and events, which were guided by the Conceptual Metaphor Theory (Lakoff & Johnson, 1980). Such a focus is hardly surprising, given that spatial aspects are closely related to ontological metaphors, and duration and time of events are strongly correlated with individuals' experiences, which can be conceptualized as orientational metaphors.

## **CONCLUSION**

Overall, the findings of this study highlight the significance of cultural diversity in the creation and use of metaphors in students' writings, which further reflects their high-order thinking skills. Recognizing the importance of cultural contexts and diverse semantic elements, educators can foster an inclusive learning environment that empowers students to excel in their thinking and writing abilities. By integrating culturally diverse metaphors and concepts, students can produce written work that demonstrates not only high-order thinking skills but also cultural sensitivity and inclusivity (Shanmugam et al, 2023; Ismail, A et al. (2022), Ismail, M.S et al (2023), Sarudin et al. (2022). This study serves as a valuable precursor for future research endeavors that aim to explore the subject matter of metaphoric semantics in students' writings through the systematic literature review (SLR) process, as proposed by Fink (2005). By adopting the SLR approach, researchers can delve deeper into understanding the intricate relationship between metaphoric expressions, semantic diversity, and students' cognitive abilities. In conclusion, the knowledge gained from examining metaphoric semantics not only aids teachers in comprehending the interplay between high-order thinking skill elements and students' cognitive abilities but also provides a practical guideline for identifying and nurturing creative and critical ideas within students' written work. Embracing cultural diversity and employing semantic integration techniques can contribute to an enriched educational experience that promotes cultural understanding, appreciation, and academic growth.

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