

## Can ChatGPT Analyse Textual Data? The Sub-Themes Reflected by Typical Conceptual Metaphors in Short Stories of Language Assessment

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### Abstract

Conceptual metaphors constitute a basic facet of human cognition, enabling individuals to comprehend abstract concepts by means of more concrete experiences. Previous research has found that metaphors are frequently employed in discourse and have a substantial impact on how we think. However, less consideration has been given to how conceptual metaphors reflect the views of writers and the themes of stories. The primary objective of this study is to examine the underlying sub-themes that are conveyed and reflected through typical conceptual metaphors found in the 22 short stories from the book *Tests and Us – A Collection of Real Stories (Volume 2)*. Additionally, this study intends to delve into the perspectives of the writers on the principles and associated concepts of language assessment. Following the Conceptual Metaphor Theory (CMT) by Lakoff and Johnson (1980), the structural, orientational, and ontological metaphors were identified by the AI program ChatGPT (GPT-4) and validated by linguistic experts. The findings revealed a cumulative count of 250 conceptual metaphors, comprising 131 structural metaphors, 64 ontological metaphors, and 55 orientational metaphors. Meanwhile, the typical metaphors have served as representations of the underlying sub-themes pertaining to the five principles of language assessment, as well as concepts including fairness and equity, formative assessment, learning environment, ethics, and integrity, among others. Through metaphors, thematic analysis not only becomes a tool for dissecting narratives but also an avenue for exploring the profound connections between language, thought, and emotion. This offers some insights for future research into various literary genres and the application of ChatGPT for the analysis of textual data.

*Keywords:* Conceptual metaphors, thematic analysis, short stories, language assessment, ChatGPT

### Introduction

The investigation of metaphorical language has become a focal point in the field of linguistic and literary studies. This centrality is driven not only by the intrinsic value of metaphors as literary devices but also by their profound influence on cognitive processes and human understanding. Conceptual metaphors, categorized as structural, orientational, and ontological metaphors, play a crucial role in the analysis of themes and sub-themes in short stories due to their ability to encapsulate complex ideas in a succinct and relatable manner. These metaphors serve as cognitive tools that bridge the gap between abstract concepts and concrete experiences, thereby enhancing the depth and richness of thematic analysis. As a qualitative research method, thematic analysis moves beyond counting explicit words or phrases and focuses on identifying

and describing both implicit and explicit ideas within the data (Alhojailan, 2012). In the context of short stories, this method provides a lens through which readers can distill the core ideas and messages conveyed by the writer. It functions as a tool to elucidate the underlying motifs and ideas that weave through a narrative, adding depth and dimension to the reader's understanding. Though previous studies have conducted thematic analysis of short stories (e.g., Bunge, 1970; Mbuthia, 2005) and explored the role of conceptual metaphors in other literary genres, including fairy tales (Ruiz, 2006), novels (Minervino et al., 2009), poetry (Hayrutdinova et al., 2021), and dramas (Hussain et al., 2022), there is a dearth of research connecting conceptual metaphors with thematic analysis, and makes an in-depth investigation into the specific sub-themes reflected by conceptual metaphors in short stories of language assessment. Thus, the current study aims to investigate the sub-themes reflected by typical conceptual metaphors in 22 short stories of language assessment. Following the CMT by Lakoff and Johnson (1980), the structural, orientational, and ontological metaphors were identified and analyzed by ChatGPT (GPT-4) and validated by linguistic experts, and the sub-themes reflected by these metaphors in the short stories were also investigated through this cutting-edge AI-assisted program GPT-4. The findings demonstrated a dynamic interaction between conceptual metaphors and the underlying themes included in the short stories, shedding light on the symbiotic relationship between form and content in narrative constructs. The interplay of conceptual metaphors and sub-themes showcases how writers skillfully embed layers of meaning, allowing readers to embark on a cognitive journey of discovery. Furthermore, this study unveils the writers' viewpoints and interpretations concerning the principles and associated concepts of language assessment, thereby emphasizing the vital role of literary elements in both shaping and conveying the compelling dimensions of language assessment.

## Literature Review

Conceptual metaphors encompass the cognitive process of comprehending and perceiving one thing by means of another. They enable us to articulate abstract ideas by relating them to concrete experiences, facilitate comprehension of novel or intricate encounters through analogies to familiar ones, and enhance communication efficacy by drawing upon shared cultural or universal experiences. The CMT framework was initially introduced by George Lakoff and Mark Johnson in the 1980s. Metaphors, as they manifest in language, are not regarded as mere embellishments of style, but rather as indications that the cognitive processes involved in contemplating and comprehending the external world and the functioning of our bodies rely on metaphorical mechanisms. Lakoff and Johnson (1999) provided a summary of the study conducted by Johnson (1999), Grady (1997), and Narayanan (1997) as potential supporting evidence for CMT. Different types of conceptual metaphors have been defined as well, including structural, orientational, and ontological metaphors. Understanding one concept in terms of another, usually mapping a less concrete concept onto a more concrete or structured one, is the goal of structural metaphors. For example, the idea of "time is money" implies that we should value and not squander our time in the same way that we would value and not waste money. It organizes our concept of time as a precious resource. Orientational metaphors are those that provide abstract conceptions, grounded in bodily experiences, directionality, or spatial orientation. As an example, happy emotions or events are associated with the direction "up" whereas bad ones are associated with the direction "down", as in "I'm feeling up today" or "His spirits sank". Ontological metaphors refer to or quantify abstract notions or actions by

treating them as entities or objects. The expression “bottle up your emotions” is one example. Emotions are not literally tangible things that can be put into a bottle in this context, but we grasp the concept of repressing or restricting feelings through metaphor. It is clear from these categories how deeply established metaphors are in our mental processes, allowing us to navigate challenging abstract ideas by grounding them in more real experiences (Lakoff & Johnson, 1980). The CMT has become a well-established research paradigm in cognitive linguistics, with a wide range of applications, such as literature, grammar, specific discourses, and second language teaching (Soriano, 2015). As an embodiment of the human experience and a reflection of cultural norms and values, literature frequently employs metaphors to dive into deep philosophical investigations and depict nuanced emotional landscapes (Podsiadlik III, 2021). Scholars can use CMT to systematically uncover underlying themes and motifs in literary works. A common metaphor in a novel, for example, might compare life to a river, implying themes of fate, destiny, and the unstoppable passage of time. CMT allows readers and analysts to understand how writers utilize metaphors to comment on life, unpack characters’ psychological states, and interact with larger societal or philosophical problems. As a result, it is critical to link conceptual metaphors with thematic analysis in literary works.

Thematic analysis (TA) is a method that has become a widely used tool for analyzing qualitative data (Terry et al., 2017). As outlined by Braun and Clarke (2006), it consists of six interrelated phases that are not strictly sequential but recursive in nature. The six phases are: 1) Familiarisation with the data; 2) Coding; 3) Searching for themes; 4) Reviewing themes; 5) Defining and naming themes; and 6) Writing up. As there are different genres in literary works, the way of doing thematic analysis may be different based on the length of texts in certain genres. For short stories which can range in length but typically they are between 1,000 to 7,500 words, Bamberg and Georgakopoulou (2008) developed a form of narrative analysis specifically tailored for these concise written narratives. The primary focus of their study centers on the process of identity-building within the context of short stories. This investigation is structured around a series of five steps: 1) Who are the characters and how are they relationally positioned; 2) The interactive accomplishment of ‘narrating’; 3) How is the speaker positioned within the interactive flow of turns that constitute the situation as ‘research’; 4) How are relationships between all characters managed; and 5) How is the self-portrayed in this brief storytelling? This approach to analyzing short stories serves as a paradigmatic example of adapting a general analytical technique to suit the specific demands posed by working with brief texts. The approach employed in their study is mostly based on the narrative analysis framework established by Labov and Waletzky (1997). Additionally, it incorporates a model of identity positioning that entails examining how individuals portray themselves concerning other characters (Bamberg, 1997). A most recent study focused on thematic analysis of short stories and brief texts was conducted by Robinson (2022), who introduced a structured tabular approach that offers both flexibility and rigor in analyzing these concise narratives. Such an approach is of growing importance given both the increasing availability of such data via social media along the rising popularity of open-ended survey responses or short story elicitation methods. According to Robinson (2022), Structured Tabular Thematic Analysis (ST-TA) follows a hybridized process approach that incorporates elements of Braun and Clarke’s (2006) TA process and Boyatzis’s (1998) TA phases. It includes seven phases: Phase A: A-priori theme development (deductive and hybrid only); Phase B: Deep immersion in the data (deductive, inductive, and hybrid); Phase C: Generating initial codes and themes (inductive and hybrid only); Phase D: Tabulating themes against data segments (deductive, inductive and

hybrid); Phase E: Checking inter-analyst agreement; Phase F: Exploring theme frequencies; Phase G: Developing thematic maps and diagrams; and Phase H: Producing the report.

While there exists a body of research dedicated to the methods of conducting thematic analysis for short stories and brief texts, there seems to be a noticeable gap in the literature when it comes to understanding how conceptual metaphors, as intricate linguistic tools, mirror, and possibly enhance the primary themes or even the more nuanced sub-themes of these brief narratives. Meanwhile, employing the conventional approach of manually categorizing metaphors and undertaking thematic analysis would entail a substantial expenditure of time. The emergence of technological advancements has led to a surge in attention towards ChatGPT, a language model that has played a significant role in enabling the analysis of textual data (Grimmer & Stewart, 2013). Hence, the primary objective of this study is to address the existing research gap through an examination of the underlying sub-themes manifested in conventional conceptual metaphors found within short stories pertaining to language assessment. This investigation will be conducted utilizing the AI-powered tool ChatGPT (GPT-4) for enhanced assistance.

### **Research Questions**

1. What are the typical structural, orientational and ontological metaphors used in short stories of language assessment?
2. How do these conceptual metaphors reflect various sub-themes in short stories of language assessment?
3. What insights do the short stories provide into the writers' perspectives on the principles and associated concepts of language assessment?

### **Research Objectives**

1. To investigate the typical structural, orientational and ontological metaphors used in short stories of language assessment.
2. To explore the various sub-themes reflected by conceptual metaphors in short stories of language assessment.
3. To uncover the writers' perspectives on the principles and associated concepts of language assessment from the short stories.

### **Methods**

#### **Research Design**

The current study used a mixed approach that included qualitative as well as quantitative methods. The quantitative method was utilized to measure the frequency and proportion of typical structural, orientational, and ontological metaphors, as well as the presence of various sub-themes in a collection of short stories. The qualitative method sought to investigate the sub-themes connected to language assessment principles and concepts as indicated by typical conceptual metaphors in these short stories.

#### **Data Source**

The sample for this study consisted of 22 short stories from a 2023 book titled *Tests and Us - A Collection of Real Stories (Volume 2)*. The narratives were authored within various Language

Evaluation and Accountability courses that have been periodically offered since the year 2019. The writers of the stories, hailing from diverse countries, bring forth a range of cultural perspectives, thereby infusing their works with distinct flavors. Upon reading, the discerning readers shall observe that each story possesses a distinct essence, thereby encapsulating the features, issues, and principles of assessment within diverse cultural contexts (Nimehchisalem & Geng, 2023).

### Data Collection and Analysis

The textual data were gathered by self-creating a corpus of 22 short stories of language assessment. The total word count was around 23,000 words, with an average of 1045 words per story. The briefest narrative, titled “An Encouraging English Teacher”, consists of 519 words, whereas the lengthiest story, entitled “Speak! Or Forever Hold Your Peace”, encompasses 1364 words.

For the analysis of typical conceptual metaphors, an AI-assisted program ChatGPT (GPT-4) was used for the identification of structural, orientational, and ontological metaphors based on the CMT proposed by Lakoff and Johnson (1980). The researchers inserted the quest and engaged in dialogue with GPT-4 by asking questions and conversationally providing prompts. For example, the researchers gave cues like:

- *Could you please comprehensively analyze all the conceptual metaphors (structural, orientational, and ontological metaphors) in this short story and categorize them into a table with columns of conceptual metaphors, categories, examples, and explanations?*

After the GPT-4 gave results, the validation of data was manually done by human linguistic experts in the area of metaphor analysis. The frequency and distribution of these three types of metaphors were determined through the software SPSS. The mapping of conceptual metaphors was also made.

For the analysis of the various sub-themes represented by these conceptual metaphors, ChatGPT (GPT-4) was also used for inductive coding. For example, the researchers gave cues like:

- *Could you please analyze the main theme of this short story, and the typical conceptual metaphors (structural, orientational and ontological metaphors) that reflect the sub-themes related to the principles (including but not limited to validity, reliability, practicality, authenticity, and washback) of language assessment in this short story and make a table by main theme, typical conceptual metaphors (put the types in the bracket), examples, sub-themes, principles of language assessment?*

In the analysis performed by ChatGPT (GPT-4), the first stage entails a comprehensive understanding of the stories, involving a deep dive into the sub-themes of language assessment, narrative plots, and the dynamics of its characters. The comprehensive exploration is essential for subsequent awareness of conceptual metaphors. Next, the story is examined to identify phrases and sentences that exhibit resonance with any of the three different types of conceptual metaphors: structural, orientational, or ontological. Upon identification, every metaphor undergoes a systematic coding procedure to assign it to the right category. For instance, metaphors that lend structure to abstract ideas are tagged as structural metaphors.

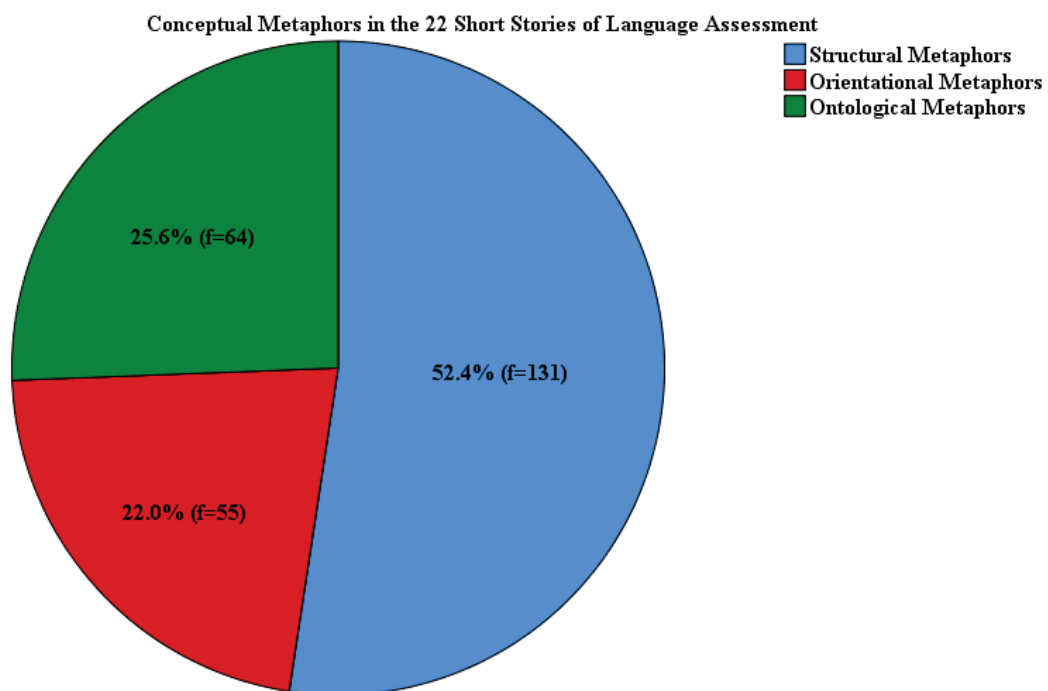
After the process of classification, the focus then shifts to establishing connections between the discovered metaphors and any underlying sub-themes that may be present within the story. The aforementioned sub-themes may intricately interconnect with some of the fundamental principles of language assessment. The outcome of the analysis is the generation of a comprehensive table, which demonstrates the multifaceted relationship between conceptual metaphors, sub-themes, and principles of language assessment.

Then the validation of data in thematic analysis was manually done by researchers by following Robinson's (2022) ST-TA for short stories. The process began with a deep immersion in the results, followed by a checking on the initial codes and sub-themes of language assessments, and then the tabulated sub-themes were refined through the reflection of conceptual metaphors. Through a series of meetings and discussions, a consensus was reached among the researchers. The frequency of sub-themes was counted again, and the researchers finally reported the results.

## Results and Discussion

### Structural, Orientational, and Ontological Metaphors in Short Stories of Language Assessment

According to the ChatGPT (GPT-4) results, a total of 250 conceptual metaphors were detected in the 22 short stories of language assessment. The percentage and frequency of the three types of conceptual metaphors are depicted in Figure 1.



**Figure 1: Distribution of Structural, Orientational, and Ontological Metaphors**

From Figure 1, it is evident that structural metaphors were the most prevalent metaphors in short stories, accounting for over half (52.4%) of all conceptual metaphors. The proportion of ontological metaphors and orientational metaphors was 25.6% and 22.0%, respectively.

The prevalence of structural metaphors over ontological and orientational metaphors, as analyzed in the short stories, could be attributed to various factors. One possible explanation for the popularity of structural metaphors could be their inherent compatibility with the human cognitive process. Such metaphors often draw parallels between abstract concepts and tangible relationships, facilitating comprehension and conveying complex ideas concisely and tangibly. Take the metaphor “misjudgment is a dagger” as an example, the mapping is from the source domain “dagger” onto the target domain “misjudgment”, which hinges on the similarity between the two concepts. In the short story *Misjudgement*, the sentence including this type of metaphor is “Like a dagger, Tim glances intently at the black iron gate.” The use of the structural metaphor in this context serves to enhance the reader’s understanding and visualization of the scene. By likening Tim’s gaze to a dagger, the sentence conveys the notion that his glance is not just casual, but rather cutting and deeply penetrating. The word “dagger” carries connotations of sharpness, precision, and potential harm, implying that Tim’s gaze is keenly targeted and potentially impactful.

Among the three types of metaphors used in short stories, ontological metaphors are employed less frequently than structural metaphors. This finding is congruent with Zhao et al.’s (2019) study, which examined conceptual metaphors in a Nobel Prize-winning novel. In the case of “The Classroom is a Desert or Oasis” from the short story *A Seed in a Desert or Oasis* (Geng, 2023), the abstract experience or quality of a classroom is being understood in terms of a tangible, concrete thing like a desert or oasis. The writer vividly contrasts two starkly different educational environments. In the same way that a desert is barren, inhospitable, and oppressive, representing a classroom that lacks supplies, feels sterile, and restricts creativity, an oasis is its antithesis. An oasis, being nurturing, refreshing, and fertile, resembles a classroom that fosters intellectual development, provides some relief from the stresses of learning, and encourages an abundance of ideas and thoughts. This comparison illustrates the profound effect that classroom environment and teaching methods can have on a student’s thirst for knowledge. The advantages of employing ontological metaphors within such literary contexts are manifold. Firstly, these metaphors enable an intricate layering of meaning, allowing writers to convey abstract or complex ideas in a more relatable and comprehensible manner. The reader’s cognitive engagement is heightened as they decode the metaphorical connections, fostering a deeper connection with the text. Moreover, ontological metaphors imbue the narrative with vividness and sensory richness, facilitating a more immersive reading experience.

Followed by ontological metaphors, orientational metaphors also occur in the short stories of language assessment. They are linguistic constructs that facilitate the understanding of abstract concepts through spatial relationships, such as up-down, inside-out, front-back, shallow-deep, and center-periphery. They take advantage of the human propensity to project physical experiences onto more abstract domains and facilitate the communication of complex ideas by grounding them in familiar sensory experiences. Based on the findings, it can be observed that the orientational metaphor words “down” and “up” exhibited a higher frequency within the corpus of 22 short stories. The characters in the text have been associated with negative emotions through terms such as “low”, “coldness”, and “burden”. Conversely, feelings of optimism have been conveyed through expressions like “high”, “warmth” and “strength”. For example, in the short story *Unforgiven*, the sentence with a parallel structure “My head down, my ears hot, my eyes sewn to the floor” uses this type of metaphor and effectively conveys a profound feeling of humiliation and embarrassment in response to an unjust punishment. There

is another example in a story related to cheating. The sentence “Hi, can I sit next to you during the exam, so it will be easier for me to copy your answers” used the symbol “next to”, and created a metaphorical expression as “cheating is copying answers” by highlighting the dishonesty and unethical behavior involved.

### **Sub-Themes Reflected by Conceptual Metaphors in Short Stories of Language Assessment**

The examination of the three types of conceptual metaphors has revealed the presence of underlying sub-themes pertaining to language assessment. For example, in the short story titled *Unforgiven*, the prevailing sub-themes revolve around the trauma and injustice stemming from the harsh discipline (Nimehchisalem, 2023). Several typical conceptual metaphors are employed to deepen the narrative’s resonance, including viewing “education as a torturous journey”, perceiving the “school as a vacuum”, characterizing the “teacher as a tyrant”, equating “misbehavior to a crime”, envisioning “fear as a predator”, treating “time as a motionless entity”, and depicting “memory as a cinema screen”.

Table 1 presents an overview of the story titles, sub-themes, typical conceptual metaphors, and reflections on principles of language assessment within the context of the 22 short stories.

**Table 1: Sub-Themes Reflected by Typical Conceptual Metaphors in Short Stories of Language Assessment**



No.	Story Titles	Sub-Themes	Typical Conceptual Metaphors	Principles
1	Unforgiven	Trauma and Injustice of Harsh Discipline	Education as a torturous journey School as a vacuum Teacher as a tyrant Misbehavior as a crime Fear as a Predator Time as a motionless entity Memory as a cinema screen	Practicality Reliability Authenticity Washback
2	A Seed in a Desert or Oasis	The Transformative Power of Teaching	Classroom as a desert/oasis Teaching as a mechanized process Teacher's anger as fire Fear as physical confinement Knowledge as nourishment Learning as growth	Practicality Reliability Validity Washback
3	Speak! Or Forever Hold Your Peace	Power of Communication and Challenges	Career choice as a path Language as a door Speaking as a physical obstacle Failure as falling Emotions as weather	Practicality Validity Authenticity Washback
4	The Perfect Atmosphere for a Life-Changing Exam	Struggle for Education in Warfare	Life as a battle Education as a ticket Exams as wars Words as weapons Choices as paths Hope as light	Practicality Reliability Validity Washback
5	Misjudgment	Misperception and Prejudice	Language testing as a battle Glances as a dagger Nervousness as a physical illness Assessment as a discovery journey Teacher's suspicion as a storm Misjudgment as a physical barrier	Practicality Reliability
6	I'd Rather Be a Student	Ethical Dilemmas and Fairness	Teaching as a burden Grading as a conflict	Reliability Washback
7	The Thief of the Secret Paper	Ethical Dilemmas and Consequences	Exam as a journey Exam as a mirror Exam hall as a battlefield Cheating as theft Silence as compliance Success as gain Failure as loss	Washback

8	Two Sides	The Paradox of Motivation and Fear in Education	Time as a path Challenges as physical obstacles Exam as a natural disaster Exam as a living creature Panic as a growing plant Emotions as weather Two attitudes as sides of a coin	Washback
9	English Tutor	The Disparity Between Institutionalized Education and Natural Language Learning	Mother as tutor Educational system as a machine Language as a living entity Tests as barriers Emotions as weather	Validity Authenticity Washback
10	The Leather Bag	Personal Growth and Resilience	Learning as a journey Challenges as obstacles Education and work as crossroads IELTS test as a battle Stress as a storm Scores as objects Failure and success as directions Love and care as power	Practicality Reliability Washback
11	Bola's Story	The Contrast Between Traditional, Structured and Individualized, Adaptive Teaching Methods	Teaching as a journey Teaching as nurturing Teacher's preparation as craftsmanship Teaching style as direction Learning as building Classroom as a living organism	Validity Washback
12	Fail Now or Fail Forever	Fear of Failure and Resilience	Learning as building Fear of failure as an obstacle Father's advice as a motivator Education as a financial transaction Life as a test	Reliability Washback
13	A Boy with a Dream	Challenges of Cultural and Individual Identity in Unfamiliar Settings	Learning as building Ambition as hunger Test as a battlefield Test as a mirror Test as a trap Cultural differences as barriers Coldness as a barrier Doubt as physical weakness	Validity Reliability Authenticity Washback

14	The Eleventh Hour is Worth Every Minute and Second	Last-Minute Preparation	Time as a race Life as a journey Studying as consumption Knowledge as a physical burden Last-minute preparation as a physical ailment Emotions as physical sensations Wisdom as taste Parental concern as sharpness Failure as falling Failure as a physical injury Success as physical elevation Success as a surprise	Washback
15	My Experience of Learning English Language	Challenges and Personal Growth	Learning as a journey Learning as building Struggles as weight Sacrifice as payment Desire for success as an internal force Success as a lottery Success as a destination Cultural transition as a rebirth Guidance as light	Washback
16	Fingers Crossed	Challenges in Grading and Assessment	Language as a barrier Teaching as a journey Teaching as building Teaching as nurturing Grading as a battle Difficulty as a physical burden Disappointment as a physical impact Expectations as physical holding Progress as movement	Washback
17	An Encouraging English Teacher	Encouragement and Motivation from Teacher	Mind as a blank container Emotions as physical sensations Teaching as support Test-taking as a competition Personal growth as a journey Success as a destination Sleeplessness as an obstacle Class as a controlled space Eyes as communication tools Fear as an unsettling presence Happiness as a tangible object Teacher's appearance as an artwork	Washback

18	Reporting a Cheat or Not?	Ethical Dilemma in Reporting Cheating	Classroom as a quiet battlefield Cheating as a game Cheating as a stealthy act Examiner as a detective Policies as external boundaries Reporting cheating as a moral dilemma	Validity Washback
19	Teaching Experience at Al-imam Ali Secondary School	Engagement and Individualization	Teaching as a journey Teacher as a builder Relationships as bridges Management as steering a ship Classroom as a field Lessons as tracks Educational progress as a journey uphill	Authenticity Washback
20	It's a Farm Visit for the Class	Innovative Methods of Language Learning and Teaching	Learning as an adventure Teaching as guiding a journey Classroom as a dynamic ecosystem Student as an explorer Animals as instruments Emotions as weather Student excitement as light	Validity Authenticity Washback
21	Hybrid Lessons Are Like Hibiscus Flowers	Hybrid Teaching and Learning Adaptation	Hybrid lessons as a roller-coaster ride The classroom as a theater stage Teaching as navigating a maze Teaching as a journey Teaching as a heartfelt endeavor Students as a beacon of light Students as mirrors Hybrid lessons as an ecosystem with both beauty and challenges	Washback
22	Don't Judge a Book by Its Cover	The Perceptions and Misconceptions in the Virtual Learning Environment	Online teaching as uncharted waters Tech-savviness as a torchlight in darkness Online blunders as theater bloopers Students' misbehavior as a web of deceit Age as a Technological Handicap	Washback

By examining conceptual metaphors, a thorough understanding of the underlying sub-themes within the 22 short stories can be attained. These short stories delve into the multifaceted challenges and triumphs of the education realm. They tackle the haunting specter of trauma stemming from unjust disciplinary practices and the profound metamorphosis brought about by effective teaching. While some narratives shed light on the power of communication and

the hardships encountered in war-torn environments, others grapple with the prejudicial lens and the ethical tightropes of fairness and consequence. The juxtaposition of institutional versus natural language learning draws attention to the gaps in our educational systems, and the ever-present fear of failure is paralleled by inspiring tales of resilience. The duality of traditional teaching methods versus more adaptive approaches, challenges in grading, the essence of true engagement, and the evolution of hybrid teaching methodologies come to the fore. Moreover, in an increasingly digital world, the perceptions and pitfalls of the virtual classroom underscore the ever-changing landscape of education. Additionally, formative assessment has also been frequently discussed.

Examining themes through the lens of conceptual metaphors holds paramount importance as it unveils layers of meaning that might otherwise remain concealed. Previous studies also showed that themes and sub-themes can be reflected through metaphors in various literary genres (Ross & Pollio, 1991). This approach allows for a more profound comprehension of the subject matter, providing a gateway to the intricate tapestry of human experiences. Through this method, thematic analysis not only becomes a tool for dissecting narratives but also an avenue for exploring the profound connections between language, thought, and emotion.

### **Writers' Perspectives on the Principles and Associated Concepts of Language Assessment from the Short Stories**

Regarding the principles of language assessment, “washback” stands out prominently in these short stories. Washback refers to the influence that testing or assessment exerts on teaching, learning, the individual learner, and even broader entities like government and society. While it can manifest in positive ways—by shaping curriculums, refining teaching methods, or guiding societal educational goals—it can also have negative implications. For instance, an undue emphasis on certain testing metrics might skew teaching priorities or put undue pressure on students. In the short story *Two Sides*, the metaphor of an “exam as a natural disaster” strikingly illustrates the negative impacts associated with assessments. The dual nature of washback, both its benefits and pitfalls, is a recurring theme in the narratives, underscoring its pivotal role in the landscape of language assessment.

Moreover, “reliability”, as a fundamental principle, frequently surfaces in various narratives. In the context of these stories, reliability often alludes to the consistency with which various aspects of examinations are managed and experienced. Notably, the stories focus on consistent conditions for students or test-takers, the objectivity and consistency of raters or scorers, uniform test administration procedures, and the inherent consistency of the test content itself. An underlying concern depicted in these narratives is the physical and mental well-being of both the test-takers and the scorers at the time of the exam. Some stories vividly portray the discomfort or distress faced by students during exams, using powerful conceptual metaphors such as “fear as a predator,” “fear as physical confinement,” and “coldness as a barrier.” Such metaphoric expressions emphasize that the students are not in an optimal state while taking the test, potentially undermining the reliability of their performance.

The exploration of sub-themes, as conveyed through metaphorical language in these short stories, highlights the profound influence that principles of language assessment exert on individuals and societies, as discerned and portrayed by the writers. The use of metaphors not only deepens the emotional and cognitive engagement of the reader but also acts as a pivotal lens to unravel the complexities and subtleties of language assessment. Delving into these

metaphorical expressions provides critical insights into the real-world experiences and viewpoints of those affected by language assessment, thereby enriching our comprehension of its core principles and their practical application.

## Conclusion

This study marks a novel integration of conceptual metaphors and thematic analysis, employing the AI-powered application ChatGPT (GPT-4) to explore short stories within the context of language assessment. In building upon the foundational work of Nimehchisalem and Mat Hussin (2018) and Nimehchisalem et al. (2019), who identified metaphorical representations of language assessment in terms of guidance, motivation, empowerment, and control, our research extends the scope of investigation into the realm of conceptual metaphors. Through the meticulous application of ChatGPT (GPT-4), the findings were subsequently verified by experts in linguistics, highlighting the prevalence of structural metaphors in these narratives, followed by ontological and orientational metaphors.

The exploration of conceptual metaphors not only contributes to a deeper understanding of the underlying cognitive processes but also underscores their fundamental role in shaping the narrative landscape. The intricacies of these metaphorical representations reinforce the intertwined nature of language, cognition, and emotion, making thematic analysis a powerful technique in literature interpretation. The collection of 22 short stories encompassed various sub-themes, which not only addressed the five fundamental principles of language assessment (validity, reliability, practicality, authenticity, and washback), but also incorporated additional concepts such as fairness and equity, formative assessment, learning environment, ethics, integrity, growth mindset, motivation, and others. This study has provided insights into the application of ChatGPT for the analysis of textual data.

This study had its limitations in the relatively small size of the corpus. In the future, more stories and texts may be added. Meanwhile, developing AI techniques allows for the analysis of conceptual metaphors and their connections to themes and sub-themes in other literary forms such as poetry, prose, and drama. ChatGPT and human specialists can be compared in terms of coding and identification of conceptual metaphors, as well as thematic analysis.

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