Vagueness in the Scientific Journals Abstracts

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Abstract

A word or a group of words is vague when its meaning imprecise. A research paper begins with an abstract. An abstract should be precise, concise, specific, and coherent. The problem of the present study focuses on to what extent are writers aware of vagueness in writing abstracts? The current study aims at exploring the sources of vagueness in research abstracts. In order to achieve this, it is hypothesized that: research writers of Iraqi academic journals are not aware of vague words or expression in writing abstracts which leads to vague interpretations of sentences. The researcher has analysed two abstracts following Kempson's (1977) model of vagueness. The model is based on four types of vagueness: referential vagueness, indeterminacy of meaning, lack of specification in the meaning of an item and disjunction in the specification of the meaning of an item. The abstracts are taken from "AL-Kitab Journal for Pure Sciences", Iraq. The results of the study show that the researchers used 16 cases of vagueness for the sample of the study. Referential vagueness scored the highest percentage (75%), lack of specification in the meaning of an item (18.75%), the indeterminacy of meaning (6.25%), and finally,

no cases of disjunction in the specification of the meaning of an item were found. The analysis also shows that the cause of including vague expressions in the analysed abstracts is that researchers are not aware of such vagueness due to the lack of knowledge in such expressions and using imprecise words which verifies the research hypothesis.

Key words: Vagueness, Degree Vagueness, Combinatory Vagueness, Abstracts

الـغموض في مستخلصــات المجلات العلمية*

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المستخلص

تكون الكلمة او مجموعة من الكلمات غامضة عندما يكون معناها غير دقيق. يبدأ البحث بالمستخلص. يجب ان يكون المستخلص دقيق، موجز، محدد ,متماسك. تركز مشكلة الدراسة الحالية إلى أي مدى يدرك الكتاب الغموض في كتابة مستخلصات البحث؟ وتهدف الدراسة الحالية إلى استكشاف مصادر الغموض في مستخلصات البحوث. ولتحقيق ذلك افترض أن: الباحثون في المجلات الأكاديمية العراقية ليسوا على دراية بالكلمات أو التعبيرات الغامضة في كتابة المستخلصات مما يؤدي إلى تفسيرات غامضة للجمل. ويسترشد الباحث بالنموذج اللغوي الخاص بالغموض للعالم كيمبسون (1977). ويعتمد هذا النموذج على أربعة أنواع من الغموض: الغموض المرجعي ، عدم تحديد المعنى، نقص في التوصيف في معنى المفردة والانفصال في التوصيف في المعنى المفردة. وتتألف عينة البحث من مستخلصين قبل مراجعتها ونشرها في "مجلة الكتاب للعلوم الصرفة" العراق. أظهرت نتائج الدراسة أن الباحثين استخدموا (16) حالة من حالات الغموض لعينة الدراسة. سجل الغموض المرجعي أعلى نسبة (75٪)؛

نقص في التوصيف في معنى المفردة (18.75٪)؛ وعدم تحديد المعنى(6.25٪) وأخيراً لم يتم العثور على حالات انفصال في توصيف في معنى المفردة. يظهر التحليل ايضا ان سبب تضمين التعبيرات الغامضة في المستخلصات التي تم تحليلها هو ان الباحثين ليسوا على دراية بهذا الغموض بسبب نقص المعرفة في مثل هذه التعبيرات واستخدام كلمات غير دقيقة والتي تؤكد فرضية البحث.

الكلمات المفتاحية: الغموض، درجة الغموض ، الغموض التوليفي، المستخلص

1. Introduction

Vagueness is an essential topic in semantics, metaphysics and philosophical logic (Keil et al, 2017:6). If a predicate has borderline cases, it will be vague (Sorensen, 1988:268). For example, the word 'short' is vague because there is no specific height at which somebody gets to be short (Hibbs, 2019: 1).

A word or a group of words is vague when its meaning inaccurate (Bassham et al, 2011: 87). Vague words are indefinite. They do not have a specific meaning which is the same for every reader/hearer of the message (Krizan et al, 2008: 87). A vague word divides things into three classes: those things to which the word clearly applies, those things to which it clearly does not apply, and those things to which it may or may not apply. In such borderline cases, it is difficult to say if the word refers to those things or not (Bassham et al, 2011: 87). Vagueness is a matter of degree. In fact, the descriptive / informative use of a language as falling somewhere on a scale between extreme generality and extreme specificity (Chaffee, 2019:273).

1.1 Statement of the Problem

The main problem which this study tries to handle is that vague language weakens the writing because it forces the reader to guess what the writer intends to say rather than focuses entirely on the subject. Also, vagueness may create wrong explanations in the reader's mind. Using such vague words and expressions in writing abstracts makes the reader unsure about what the writer exactly means or tries to say.

1.2 Research Questions

The present study is an attempt to answer the following questions:

1. To what extent are writers aware of vagueness in writing abstracts?
2. What types of vagueness are used in scientific journals abstracts and which type is the most frequent?

1.3 Aims of the Study

This study aims:

1. To explore the sources of vagueness in scientific journals abstracts.
2. To show the most frequent types of vagueness in the abstracts of academic journals.

1.4 Hypotheses

Based on the above-mentioned aims, the present study hypothesizes the following:

1. Research writers of Iraqi academic scientific journals are not aware of vague expressions in writing abstracts.
2. Referential vagueness is the most frequent type of vagueness in academic journals abstracts due to its flexible nature.

1.5 Data Collection

The data corpus for this study consists of two abstracts before reviewing and publication in "AL-Kitab Journal for Pure Sciences", Iraq, 2020.

1.6 The Model of Analysis

The present study mainly adopts Kempson's (1977) model of analysis of vagueness. The model adopts four types of vagueness in the analysis, namely: (1) **referential vagueness** means the meaning of an item sufficiently clear, but it may be difficult to determine whether the item can be applied to certain objects or not; (2) **indeterminacy of meaning** means the meaning of a lexical item itself indeterminate; where the interpretation appears itself quite intangible; (3) **lack of specification in the meaning of an item,** where the meaning is clear but is only generally specified and (4) **disjunction in the specification of the meaning of an item,** where the meaning includes an either-or statement of various interpretation possibilities.

1.7 Limits of the Study

The present study is limited to samples of abstracts taken from AL-Kitab Journal for Pure Sciences 2020.

1.8 Value of the Study

The research is meant to provide a clear picture about the areas of weakness that the researchers suffer in writing abstracts.

2. Theoretical Background and Literature Review

2.1 Definitions of Vagueness

Vagueness is defined by Zhang (1998: 5) as an expression which has more than one possible interpretation. For instance, good has more than one readings: good (hard-working) student, good (fine) weather, etc. Likewise, the sentence that (John has my book) could mean: John has a book owned by me; John has a book written by me; John has a book borrowed by me, etc.

Peirce's wide use of vague puts him away from later work on vagueness. In fact, in his entry for 'vague in logic' for a dictionary of philosophy and psychology:

"A proposition is vague when there are possible states of things concerning which it is intrinsically uncertain whether, had they been contemplated by the speaker, he would have regarded them as excluded or allowed by the proposition. By intrinsically uncertain we mean not uncertain in consequence of any ignorance of the interpreter, but because the speaker's habits of language were indeterminate" (Williamson, 2001: 47).

Cutting (2012: 284) defined vague language as forms that are intentionally fuzzy, general, and imprecise, have a low semantic content and are relied heavily on common contextual knowledge for their meaning.

As so, we can extract a general definition of vagueness as any words, phrases and sentences that have more than one related meaning may be countable or uncountable is called vagueness. Also any gradable words or any words that admit borderline cases are vague such as (hot, warm, cool, cold).

2.2 Types of Vagueness

Keil and Poscher (2016: 3,193) stated that, there are two types of vagueness:

1. **Degree vagueness**: Vagueness is caused by the lack of precise cut- off point boundaries between application and non-application. This type can also be **called gradual vagueness or quantitative vagueness.** Concepts such as **bald** and **tall** are vague in degree because they do not draw a sharp line in one underlying dimension.

2. **Combinatory vagueness**: On the other hand, this type of vagueness applies to the indeterminacy of the criteria used in applying a word. This type can be called **conditional vagueness** or **categorical vagueness** because there is an intrinsic lack of determination to exactly what combination, or what condition, is necessary or sufficient to apply the term. Alston's example (1967) of a combinatory vague concept is 'religion': religions are distinguished by a number of features like, a belief in god, regarding certain objects as sacred, ritual acts, a moral code, characteristic feelings, a world view, and a social organization bound together by these characteristics. The term 'religion' is combinatory vague because there is no fact to the number of these characteristics, and which of them, must be existent in order for the term to apply. For example, it is clear, that the presence of rituals is neither necessary nor sufficient to make something a religion. But having all the features is not required either.

2.3 Vagueness in Grammar

Grammar is the systematic way in which language sentences may be constructed (Blackburn, 2005:155). It is the set of rules that help us to understand language, and it is the structure and system of the language, usually consider to consist of syntax and morphology. Grammar is the structural basis for our ability to express ourselves. The more we know of how it functions, the more we are able to observe the meaning and efficiency of how we and others use language (Ranjesh Roy, 2019:1).

Actually, no linguistic structure whose meaning includes perception and categorization can be completely free of vagueness (Van Rooij, 2011:124). Vagueness is an inevitable feature of natural language. Any lexical category can almost be vague. Vague expressions of prototypes are adjectives such as 'tall' and 'red'. The Sorites Paradox is the hallmark of vagueness and formulated as a noun, 'heap'. But also many adverbs ('very', 'probably') and quantifiers ('many', 'a few') give rise to vagueness (ibid: 124). Determiners such as (many, few, much, little) are vague, as well as, modifiers (very, somewhat) (Égré and Klinedinst, 2011:3), and prepositions (near) (Nouwen et al, 2011: 4), other parts of speech can also be vague (Bergmann, 2008:5). Qualifirs such as 'some' and comparators such as 'more' are sources of gradability. Conjunctions such as 'or' are not sorites susceptible but can well convey a different types of vagueness (Krey and Rossi, 2018: 223).

2.3.1 Vagueness in Nouns

Nouns are one part of speech (Blaine, 2014: 136). They come from Latin word 'nomen' which means 'name'. Therefore, nouns are often defined by their naming ability. A noun is a naming word to

persons, places, things, ideas and feelings. Completely a noun can be the name of anything or everything. Nouns can be functions as the subject of a clause or sentence such as (<u>What he discovered</u> is not certain), an object of a verb such as (I wonder <u>if it will rain tomorrow),</u> or an object of a prepositions such as (Sometimes I think of <u>what he said)</u> (Ranjesh Roy, 2019:8).

Some nouns are gradable such as mountain and hill (nouns). There is no absolute distinction between mountain and hill. What is referred to on one occasion with that mountain might be called that hill on another occasion. Expressions like that hill and that mountain are referentially vague (Hurford et al, 2007:136).

Chierchia (2010: 100) informs us that while every noun/concept may in a certain sense be vague, mass nouns/concepts are vague in a way that systematically impairs their use in counting.

2.3.2 Vagueness in Pronouns

A pronoun is a part of speech (Eggenschwiler et al, 2011: 36). Pronoun (Pro+noun) means 'in the place of a noun'. It is a word used in place of a noun to avoid its repetition. In grammar, nouns and pronouns are given equal importance. They can function as subjects such as (<u>He</u> traveled with friends) or objects such as (The boy traveled with <u>them</u>) (Ranjesh Roy, 2019: 62). A pronoun stands for or refers to a person, place, or thing whose identity is made clear earlier in the text (Kaplan and McCune, 2018:46). In, writing, a pronoun refers to its antecedent (Raimes and Miller-Cochran, 2014: 480). Consider the following example:

Dentists are concerned with oral health. They say that flossing is good for your gums.

In this sentence, (they) is a pronoun referring to the antecedent Dentists (Kaplan and McCune, 2018: 46).

If we use pronouns skillfully, our writing will be clearer (Eggenschwiler et al, 2011: 36), but an unclear or vague pronoun reference makes a sentence confusing and hard to understand. In a vague pronoun reference, the pronoun does not refer clearly to its antecedent. To be clear, we should replace a more specific noun for the pronoun.

Vague: When I heard it, I laughed. [Heard what?]

Edited: When I heard the message, I laughed (Anker, 2009:502).

2.3.3 Vagueness in Verbs

Verb means to tell. It is saying word telling us about an action, an activity, a process, a state of being, a state of mind or state of the subject. It describes what the subject 'is', 'does' or 'has'. Verbs function as the root of what is called the predicate, which is required (along with a subject) to form a complete sentence such as (The kids may have started the game); therefore, each sentence must contain at least one verb (Ranjesh Roy, 2019:200).

Verbs such as (walk, run) can be vague (Égré and Klinedinst, 2011:3). Abstract nouns and generalized verbs like (move, seem, and appear) make only vague impressions. So, it is better to use verbs that express action and create powerful images (Connelly, 2013: 102).

2.3.4 Vagueness in Adjectives

An adjective is a qualifying and modifying word that describes a noun such as (My car is very old) or a pronoun such as (He is old), as well as any phrase or part of speech functioning as a noun. It is mostly

used in connection with nouns and pronouns, providing us more information about people, places and things. It can be either part of the subject or predicate (Ranjesh Roy, 2019:118).

An adjective to be vague if it strikes me as manifesting a notable degree of indeterminacy (Warren, 1988: 157-158). The vagueness of adjectives has been studied more extensively than that of other types of words (Deemter, 2010:104). Vagueness has been associated with gradability. A concept is gradable just in case comparisons are permitted.

There are two kinds of gradable adjectives: Relative adjectives and absolute adjectives (Leffel et al, 2019:319).

Relative adjectives are correlated with open scales (those without endpoints), and tend to have uniform (or possibly normal) prior distributions (ibid: 320) such as tall in the sentence "John is tall" depends on what counts as tall in the context given (Nouwen et al, 2011:7). The vagueness of relative adjectives manifests itself in borderline cases. For instance, in the expression "a tall basketball player," although the comparison class, i.e., the basketball players set, is explicit, one may still hesitate when deciding whether it is true for two-meter tall player. It is the result of such sensitivity of the optimal threshold when there is uncertainty as to the exact prior (Qing and Franke, 2014: 24, 31). **Absolute adjectives** are correlated with closed scales (those with a maximum or minimum boundary or both), and their thresholds appear to be located at a scalar endpoint since the relevant measure functions map significant probability mass to those endpoints (Leffel et al, 2019:320).

Non-gradable adjectives such as 'even' does not give rise to (much) vagueness (Van Rooij, 2011:131). Kennedy (2007) states, some gradable adjectives, like full and dry, have positive forms which are

arguably not vague. For example, a glass of water is full only when it is completely filled with water. These gradable adjectives are called absolute adjectives (Qing and Franke, 2014:24).

2.3.5 Vagueness in Adverbs

An adverb means 'add information about the verb'. It is a modifying word that modifies the meaning of a verb (He sings <u>loudly</u>), an adjective (Tom is <u>very</u> tall) and another adverb (The race finished <u>too</u> quickly) in a given sentence or even entire clauses depending on what they modify and how. (Ranjesh Roy, 2019:382).

Adverbs such as 'quickly', quantifiers such as 'many and modifiers such as 'very' are vague (Keefe, 2003: 14).

The basic concept is to allow modifiers like definitely, indisputably, undoubtedly, unquestionably, clearly, sort of, arguably, etc., to quantify across worlds in a context, very much in the same way that nominal or adverbial quantifiers quantify over individuals or situations. Modifiers such as clearly are vagueness quantifiers (Barker, 2002:14).

2.4 Scientific Journals Abstract
2.4.1 Definition of an Abstract

According to the Manual of the APA (American Psychological Association), a good abstract is precise, self-contained, concise, specific, non-evaluative, coherent and readable. (Schiller, 2011: 167)

The abstract provides a brief comprehensive overview of the study, including sufficient information for readers to decide whether they want to read the article itself (Kuther, 2012: 126). It is including statements of the problem, purpose, scope, tradition of research, data

sources, methodology, key findings, and implications. The abstract is written after the paper is completed and is written from an outside reader's perspective (Bloomberg and Volpe, 2019: 48).

There are also certain things that should not be involved in an abstract, i.e. information and conclusions not mentioned in the paper, references to other sources (although this may vary by journal), the particular title phrase and illustrative elements like tables and figures (Day and Gastel, 2006: 53).

The Operation Definition

The abstract is a summary of the full research paper. It should be a self-contained, clear, concise, specific, precise and to the point. It should contain five things: research problem, objectives, methods, results and conclusions.

2.5 Previous Studies

Banks (1998) conducted a study about vague quantification in the scientific journal article. The sample consisted of (6) articles in scientific journal, three from the ultra-difficult sector, and three from the not-so-difficult sector published in 1996 that showed (1) expressions that contain words only have a different distribution from expressions that contain figures. In some cases, vagueness within the text in compensated. The use of vague quantification is related to the hedging phenomenon. These features may operate on a 3-way cline of the different uses of hedging devices. (2) vague quantification as a basic and fundamental element of article of the scientific journal (Banks, 1998:18-26).

Another study was conducted by **Cai-yan and Lu-ting (2014)** about vague language in English talk show. They analyzed the classifications of vague language in English talk show in combination with the examples from a book called "A Collection of Classic Talk Shows" (2002), and explored its pragmatic functions with the help of some real examples from the perspective of Grice's Cooperative Principles and Leech's Politeness Principles. The paper mainly took its way and classified the vague language in English talk show into three types: vague words, hedges, and implied vagueness. Based on Cooperative Principles and Politeness Principles, the study summarized three key functions of vague language: giving the right amount of information, being polite, protecting oneself (Cai-yan and Lu-ting, 2014: 819-824)

Li's (2019) study aimed to investigate the role of vague language in legislative texts from a diachronic perspective. The study conducted in two main stages: identification of vague language and a diachronic corpus analysis of these vague items. The study identified four major semantic groups of vague items in the JRC-Acquis (En): 'quantity', 'time', 'degree' and 'category'. It analyzed the English part of the JRC-Acquis, a 56 million words corpus of legislative documents from the year 1958–2006.

The results showed that vague language is used very frequently in such texts, but different types of vague language reflect different diachronic uses. The vague use associated with the semantic group 'degree' experiences a significant increase over the years, while the vague use in relation to 'category' has dropped dramatically. The results also show that legislative texts over time tend to involve the use of more

'informal' and conceptually 'simple' lexical features to make those texts more accessible to their audiences (Li, 2019: 104).

3. Text analysis

3.1 Data analysis

Abstract One

The following table shows the numbers and percentages of vague words and expressions in abstract One.

Table (1) Numbers and Percentages of Vagueness in Abstract One

Types of Vagueness	No.	%
Referential vagueness	9	90%
Indeterminacy of meaning	0	0%
Lack of specification in the meaning of an item	1	10%
Disjunction in the specification of the meaning of an item	0	0%

Table (1) above shows that referential vagueness is the highest among the types of vagueness (90%), lack of specification in the meaning of an item came second in rank order (10%), and finally, no cases of indeterminacy of meaning, disjunction in the specification of meaning of an item was found.

Following are examples of vagueness in abstract one:

(1) The **high** temperature makes the efficiency of the solar panels **decrease** and thus lead to a **decrease** in production of power.

The writer did not determine the numerical value of the degree of temperature, and did not mention the percentage of efficiency of solar panels, and the amount of decreased power production. So, the words "**high**" and "**decrease**" are referential vagueness in this sentence.

(2) In this study, the cell surface temperature was **reduced to low rates** to improve efficiency and **to increase power** by cooling the surface of the solar panel with water by adding a tube to the surface of the panel and making holes in diameters of 2 mm and at different flow rates (3 L /h, 6 L /h and 9 L /h) and **later** is compared with solar panel without cooling.

In this sentence, the words **"low"** and "**increase**" are referential vagueness because the writer did not mention to which degree the cell surface temperature reduced and the amount of power was increased. The word "**later**" lacks the specification of meaning because the writer did not state the precise time.

(3) It has been observed that the efficiency for all panel has **peak** at (12:30 pm), also the efficiency has **increased** with cooling by water.

Here, the words "**peaked**" and **"increased"** are referential vagueness, since no mention was made of the peak degree and the percentage of solar panels efficiency which also increased.

(4) The results show that the efficiency is **higher** when the flow rate is **less**.

The adjectives "**higher**" and **"less"** here are referential vagueness because the reader wonders about the percentages of efficiency and flow rates.

Abstract Two

The following table shows the numbers and percentages of vague words and expressions in abstract two.

Table (2) Numbers and Percentages of Vagueness in Abstract Two

Types of Vagueness	No.	%
Referential vagueness	3	50%
Indeterminacy of meaning	1	16.67%
Lack of specification in the meaning of an item	2	33.33%
Disjunction in the specification of the meaning of an item	0	0%

Table (2) above shows that referential vagueness is the highest among the types of vagueness (50%), lack of specification in the meaning of an item came second in rank order (33.33%), the indeterminacy of meaning came third (16.67%), and finally, no cases of disjunction in the specification of meaning of an item was found.

Following are examples of vagueness in abstract two:

(5) This paper presents theoretical and experimental studies of the performance of a PV-Trombe (PV-TW) system with and without DC fan under **the conditions of weather** in Iraq.

In this sentence, the phrase **"the conditions of weather"** lacks specification in meaning because the weather conditions in Iraq are not specified.

(6) The validation has shown **well** matching between the theoretical and the experimental data.

The adverb **"well"** in the above sentence is a referential vagueness because the degree of matching between the theoretical and the experimental data was not specified by the writer.

(7) The results reveal that the presence of DC fan **increases** the indoor temperature **significantly** for the tested PV-TW system.

Here, the word **"increases"** is a referential vagueness because the degree of significant increase in temperature is not mentioned.

(8) Accordingly, the existence of the DC fan is able to **enhance** the indoor comfort condition and to **cool** the PV cell.

Due to the lack of improvement achieved in the internal comfort conditions, the word **"enhance"** lacks specification in meaning , and the word **"cool"** is a referential vagueness because the temperature of the PV cell is not specified.

(9) This potential of the PV-TW system is extractable based on the tested **conditions**.

In this sentence, the meaning of the word **"conditions"** has indeterminate meaning due to the lack of clarification of the tested conditions.

4. Results and Discussion

4.1 Results

The results of the descriptive analysis demonstrated 16 cases of vagueness were found in the selected abstracts which have been used as the data corpus. As shown in Table (3), the referential vagueness formed (12) cases with the highest percentage of (75%), lack of specification in the meaning of an item came second in rank (3) cases with a percentage of (18.75%), the indeterminacy of meaning came third in order with (1) case and a percentage of (6.25%) and finally, no cases of disjunction in the specification of the meaning of an item was found.

Table (3) below shows the total Numbers and Percentages of Vagueness in the abstracts chosen for the study.

Table (3) Total Numbers and Percentages of Vagueness in Abstracts

Types of Vagueness	No.	%
Referential vagueness	12	75%
Indeterminacy of meaning	1	6.25%
Lack of specification in the meaning of an item	3	18.75%
Disjunction in the specification of the meaning of an item	0	0%
Total	**16**	**100%**

The table can be represented by figure (1) below for clarify of illustration.
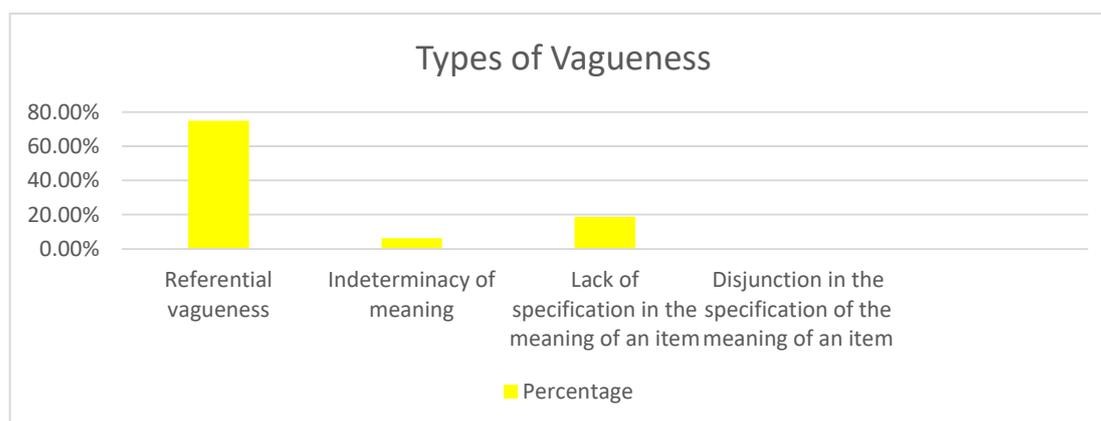

Figure (1): Types of Vagueness

4.2 Discussion

Most researchers used vagueness in their academic journals abstracts because they are not aware of vague sentences. This could be attributed to the lack of knowledge of vague expressions that leads to distorting the facts and misinterpretation of the texts.

As can be seen from table (3), referential vagueness is the most frequent type of vagueness in the academic journals abstracts because of the use of words such as words that have borderline cases and gradable words. Some sentences lack specification in the meaning because the researchers have a narrow understanding of various ideas. Also, some

sentences have indeterminate meanings due to uncertainty and the variations in interpretations.

Finally, no cases of disjunction in the specification of the meaning of an item were found in the samples of the study because the idea that the scientific academic journal writers intend to convey does not appear to fit such instances.

5. Conclusions, Recommendations and Suggestions for Further Research

5.1 Conclusions

On the basis of the results obtained and discussion, the following conclusions can be drawn:

1. The writers of the abstracts in the journals are not aware of vague expressions due to the lack of knowledge about such vague expressions.

2. Of the four types of vagueness, three were found to be used in the abstracts under investigation: referential vagueness, indeterminacy of meaning and lack of specification in the meaning of an item. Whereas no cases of the disjunction in the specification of the meaning of an item were noticed. Referential vagueness was identified to score the highest frequency of use than the other types. This confirms the second hypothesis which states that "Referential vagueness is the most frequent type of vagueness in research abstracts".

5.2 Recommendations

With regard to the conclusions, the following recommendations can be set:

1. The researchers must be aware of vague expressions and avoid using them in writing research abstracts in order to give clear ideas to be beneficial for other researchers/readers.

2. The researchers need to conform to the accepted academic writing style in writing their research abstracts.

References

Alston, W. (1967). "**Vagueness**" in P. Edwards (ed.), The Encyclopedia of Philosophy, Collier-Macmillan, pp. 218–221

Anker, Susan (2009). **Real Essays with Readings with 2008 MLA Update: Writing Projects for College, Work, and Everyday Life,** (3rd Edition)**.** Boston: Bedford/St. Martin's.

Banks, David (1998). "Vague Quantification in the Scientific Journal Article". **Asp, la revue du GERAS** 19/22, pp.17-27.

Barker, Chris (2002). "The Dynamics of Vagueness". **Linguistics and Philosophy**, 25(1)**,** pp**.** 1–36.

Bassham, Gregory; Irwin, William; Nardone, Henry and Wallace, James M. (2011). **Critical Thinking: A student's Introduction**, (4th Edition). New York: The McGraw-Hill Companies, Inc.

Bergmann, Merrie (2008). **An Introduction to Many-Valued and Fuzzy Logic: Semantics, Algebras, and Derivation Systems**. Cambridge: Cambridge University Press.

Blackburn, Simon (2005). **The Oxford Dictionary of Philosophy,** (2nd Edition)**.** Oxford: Oxford University Press.

Blaine, Patricia (2014). **Change Your Words, Change Your Worth: How to Get a Job, a Promotion, and more by Speaking and Writing Effectively.** Bloomington: iUniverse LLC.

Bloomberg, Linda Dale and Volpe, Marie F. (2019) **Completing Your Qualitative Dissertation: A Road Map from Beginning to End,** (4th Edition). London: Sage Publications, Inc.

Cai-yan, Feng and Lu-ting, Zhou (2014). "Vague Language in English Talk Show". **US-China Foreign Language**, Vol. 12, No. 10, pp. 819-825.

Chaffee, John (2019). **Critical Thinking**, (12th Edition). USA: Cengage learning.

Chierchia, Gennaro (2010) "Mass Nouns, Vagueness and Semantic Variation". **Synthese**, 174(1), pp. 99-149.

Connelly, Mark (2013). **The Sundance Writer: A Rhetoric, Reader, Research Guide, and Handbook** (5th Edition). Wadsworth: Cengage Learning.

Cutting, Joan (2012). "Vague Language in Conference Abstracts". **Journal of English for Academic Purposes,** Vol. 11, No.4, pp. 283-293.

Day, Robert A. and Gastel, Barbara (2006). **How to Write and Publish a Scientific Paper**, (6th Edition). USA: Cambridge university press.

Deemter, Kees van (2010). **Not Exactly: In Praise of Vagueness**. Oxford: Oxford University Press.

Eggenschwiler, Jean; Biggs, Emily Dotson and Reinhardt, Claudia L. W. (2011). **CliffsNotes Writing: Grammar, Usage, and Style Quick Review,** (3rd Edition). Canada: Wiley Publishing, Inc.

Égré, Paul and Klinedinst, Nathan (2011). **Vagueness and Language Use**. Basingstoke: Palgrave Macmillan.

Hibbs, Darren (2019).**Vagueness: Philosophy of Language, Metaphysics**.1000-Word Philosophy an introductory

Anthology.https://1000wordphilosophy.com/2019/03/11/vaguenes s/.

Hurford, James R.; Heasley, Brendan and Smith, Michael B. (2007). **Semantics: A Coursebook,** (2nd Edition). Cambridge: Cambridge University Press.

Kaplan, Jeffrey S. and McCune, Sandra Luna (2018). **CliffsNotes FTCE General Knowledge Test,** (4nd Edition). New York: Houghton Mifflin Harcourt.

Keefe, Rosanna (2003). **Theories of Vagueness**. Cambridge: Cambridge University Press.

Keil, Geert and Poscher, Ralf (2016). **Vagueness and Law: Philosophical and Legal Perspectives.** Oxford: Oxford University Press

Keil, Geert; Keuck, Lara and Hauswald, Rico (2017). **Vagueness in Psychiatry,** (1st Edition)**.** Oxford: Oxford University Press.

Krey, Nina and Rossi, Patricia (2018). **Boundary Blurred: A Seamless Customer Experience in Virtual and Real Spaces: Proceedings of the 2018 Academy of Marketing Science (AMS) Annual Conference**. Cham, Switzerland: Springer, Academy of Marketing Science.

Krizan, A. C. Buddy; Merrier, Patricia; Logan, Joyce and Williams, Karen (2008). **Business Communication**, (7th Edition) .Canada: Thomson South-Western.

Kuther, Tara L. (2012). **The Psychology Major's Handbook,** (3rd Edition). Wadsworth: Cengage Learning.

Leffel, Timothy; Cremers, Alexandre; Gotzner, Nicole and Romoli, Jacopo (2019). "Vagueness in Implicature: The Case of Modified

Adjectives" .**Journal of Semantics**, Vol. 36, Issue 2, pp. 317–348.

Li, Shuangling (2019). "Communicative Significance of Vague Language: A diachronic Corpus: Based Study of Legislative Texts". **English for Specific Purposes**, Vol. 53, pp. 104-117.

Nouwen, Rick; Rooij,Robert van; Sauerland, Uli and Schmitz, Hans-Christian (2011). **Vagueness in Communication**. Springer-Verlag Berlin Heidelberg.

Qing, Ciyang and Franke, Michael (2014). "Gradable Adjectives, Vagueness, and Optimal Language Use: A Speaker-Oriented Model" **Proceedings of SALT**, 24: 23–41.

Raimes, Ann and Miller-Cochran, Susan (2014). **Keys for writing,** (7th Edition). Wadsworth: Cengage Learning.

Ranjesh Roy, Er. BK. (2019) **Ranjesh's Practical Global English Grammar, Composition & Usages.** Bluerose Publishers.

Schiller, Sandra; Aere Christina; Holzknecht, Judith and Mohr-Modes, Barbara (2011). **Fachenglisch für Gesundheitsberufe: Physiotherapie, Ergotherapie, Logopädie, 3. Auflage**. Berlin: Springer Medizin Verlag Heidelberg.

Sorensen, Roy A.(1988)."Precisification by Means of Vague Predicates". **Notre Dame Journal of Formal Logic**,Vol.29,No. 2, pp. 267-275.

Van Rooij, Robert. (2011). **Vagueness and linguistics**. In G. Ronzitti (ed.), Vagueness: a guide, chap. 6, 123–179. Dordrecht: Springer.

Warren, Beatrice (1988). "Ambiguity and Vagueness in Adjectives". **Studia Linguistica,** Vol.42, Issue 2, pp. 122-172.

Williamson, Timothy (2001). **Vagueness**. Taylor and Francis e-Library.

Zhang, Qiao (1998). "Fuzziness-vagueness-generality-ambiguity". **Journal of Pragmatics, Behnam**, Vol. 29, No. 1, pp.13-31.

Appendix I

Abstracts of AL-Kitab Journal for Pure Sciences

Abstract One

The **high** temperature makes the efficiency of the solar panels **decrease** and thus lead to a **decrease** in production of power. In this study, the cell surface temperature was reduced to **low** rates to improve efficiency and to **increase** power by cooling the surface of the solar panel with water by adding a tube to the surface of the panel and making holes in diameters of 2 mm and at different flow rates (3 L /h , 6 L /h and 9 L /h) and **later** is compared with solar panel without cooling. It has been observed that the efficiency for all panel has **peak** at (12:30 pm), also the efficiency has **increased** with cooling by water. The results show that the efficiency is **higher** when the flow rate is **less**. The results for solar panel without cooling, with 3 liter/hour, 6liter/hour and 9 liter/hour respectively for efficiency average per day through the experiment are (12.63%) ,(13.54%),(13.23%) and (13.06%), and the rate of increase for efficiency with compression without cooling panel, the results have shown that the efficiency increased by rate of (6.71%) for flow rate 3 liter/hour , (4.51%) for 6 liter/hour flow and (3.28%) at flow rate 9liter/hour.

Abstract Two

This paper presents theoretical and experimental studies of the performance of a PV-Trombe wall (PV-TW) system with and without DC fan under **the conditions of weather** in Iraq. A theoretical model was developed based on an energy balance concept and an experimental setup

was built up for system performance analysis. The validation has shown **well** matching between the theoretical and the experimental data. The results reveal that the presence of DC fan **increases** the indoor temperature significantly for the tested PV-TW system. Furthermore, there is an improvement in the electrical performance of this system, where its electrical efficiency reaches up to 12%. Accordingly, the existence of the DC fan is able to **enhance** the indoor comfort condition and to **cool** the PV cell. This potential of the PV-TW system is extractable based on the tested **conditions**.