NOUN COUNTABILITY JUDGMENTS BY ARABIC SPEAKERS OF ENGLISH

A DISSERTATION SUBMITTED TO THE GRADUATE SCHOOL IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE DOCTOR OF PHILOSOPHY

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BALL STATE UNIVERSITY
MUNCIE, INDIANA
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BALL STATE UNIVERSITY
MUNCIE, INDIANA
MAY 2017
To my Mother and Father
ABSTRACT

DISSERTATION: Noun Countability Judgments by Arabic Speakers of English

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DEGREE: Doctor of Philosophy

COLLEGE: Sciences and Humanities (English Department)

DATE: May 2017

PAGES: 156

In an attempt to better understand the role of relationship between the use of English indefinite article and L1 transfer in L2 countability judgments by speakers of non-classifier languages, the current study investigates how Saudi EFL learners judge noun countability in English. The current study aims to find; (1) if countability judgments correlate with the learners’ use of the indefinite article, given that articles in Arabic (L1) are not a determining factor of countability, (2) the extent to which context aids Arabic learners of English to make better judgments of noun countability, (3) if countability judgments correlate with noun class (concrete vs. abstract), (4) whether Arabic (L1) knowledge plays a role in the judgments of noun countability in English (L2), and (5) the extent to which proficiency correlates with better performance on countability judgments. A total of 75 Saudi learners of English, who were divided into beginner, intermediate and advanced levels, completed a Fill-in-the-Blank task (FB), an Error Correction task (EC), a countability judgments of nouns in isolation (JCI), a Countability Judgments of nouns in Context (JCC), a Translation task from L1 to L2, and a Self-report task. According to correlation tests and ANOVAs, countability judgments strongly correlate with article accuracy on both the FB and EC tasks. Context was identified as an important factor in making better countability judgments as the difference between accuracy rates of the JCC and JCI was significant in favor of the former; the subjects had a flexible notion
of countability, in that it is not static rather than context dependent. The results also revealed that the subjects’ overall accuracy rates for abstract and concrete nouns were very close, and no significant differences were observed except in the translation task where the accuracy rate for concrete nouns was significantly higher than abstract nouns. The semantic context of abstract and concrete nouns was found to be a relevant factor to countability judgments; the subjects performed better on the count use of concrete nouns than the mass use, while their accuracy rates were very close for the count and mass uses of abstract nouns. The results of the translation task showed that L1 had an influence on countability judgments in L2, which was evident in the fact that the accuracy rate for this task was the lowest.
ACKNOWLEDGMENTS

First and foremost, I am extremely grateful to Allah the Almighty for His benevolence in bestowing me with the help I needed in all stages of my personal and academic life.

I would like to offer my profound thanks and gratitude to my committee chair, Dr. Elizabeth Riddle who has supported and guided me from the inception of this project until the end, and made every step of writing this dissertation a very unique learning experience. Your feedback has always encouraged and supported me to proceed with enthusiasm to complete the task at hand. I could not have completed the task, or succeeded without you. Please accept my deepest thank you.

I would also like to extend my thanks to my committee members, Dr. Hamada Megumi, Dr. Lynne Stallings and Dr. Abdelaadim Bidaoui for their invaluable comments and feedback that made the completion of this study possible. Dr. Kianre Eouanzoui, I appreciate your help and guidance during the analysis of my data.

I owe inexpressible love and gratitude to my parents. To them I dedicate this work. This work could have never been achieved without the support and sacrifice of my beloved wife. To her I am truly indebted.

Many thanks to the chairman of the English department at Almajmaa University for supporting my study, providing permission to conduct my survey at the school, and being cooperative.

Finally, I am grateful to my friends for their encouragement, reassurance and motivation throughout my entire time in the graduate program.
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CHAPTER I
INTRODUCTION

1.0 Introduction

With the development of the global economy, English is seen as a worldwide language. It plays crucial roles in most aspects of life. English has become the favored option as a second language. In many countries, including Saudi Arabia, children usually start learning English at an early age, perhaps at the age of eight, and in some cases even earlier. However, second language learners usually fail to achieve a native-like proficiency in English with respect to some grammatical structures, such as the article system. The increasing number of errors by L2 English speakers attracted researchers and language teachers. To figure out the trigger factors of such errors and find ways to tackle them, several linguistic theories have been proposed such as L2 acquisition, Language Transfer, Contrastive Analysis Hypothesis, and the Fluctuation Hypothesis, to name a few.

Language learners’ errors are of central interest to language researchers. These researchers want to offer some insights into the process of learning in order to identify causes of errors. The linguistic concept at issue in this paper is noun countability. It is one of the difficult linguistic elements, which most learners of English are faced with because of its ambiguity and complexity. The issue is further complicated by several factors related to the linguistic differences between learners’ L1 and L2. This concept is closely related to the use of articles and the plural marker. It has been documented in the literature that many learners of English as a second or foreign language have serious difficulty with the use of the article system in English and the formation of plural nouns. Whitman (1974), for instance, points out that “The article system in English has been considered one of the most formidable problems to overcome in teaching English grammar to foreigners, and its misuse is one of the most evident grammatical
signs that a person is not native speaker of English” (p.253). Similarly, Bardovi-Harlig and Bofman (1989) claim that at least one of three errors in advanced learners’ essays is the misuse of articles, and/or the plural maker. Dulay, Burt and Krashen (1982) argue that the use of definite and indefinite articles is governed by complex rules and that these rules are not adequately stated in grammar books. This lack of stated rules may suggest the absence of a fully explanatory theory of articles and the plural marker.

Prior descriptive research (Allan, 1980, 1986; Chen, 1988; Hiki, 1991, Master, 1990; Kharma, 1981) suggests that at least three factors are involved in determining the use of articles and/or plural: countability, definiteness and genericness. These works suggest that a good understanding of the countability of a noun is, in most cases, essential to, but not necessarily sufficient for, the proper use of articles and the plural for the noun. Put simply, failure to judge noun countability, among other reasons, is one reason for the difficulty in the correct employment of English articles.

1.1 The Purpose and Significance of the Study

A bulk of research has investigated the acquisition of English articles by ESL learners in general without paying attention to the role of noun countability in the acquisition of articles (e.g., Kharma, 1981; Master, 1987; Myers, World Bank, & the Caribbean, 1992; Parrish, 1987). These studies compare learners from languages with article-less background with those who speak languages with an article system. Furthermore, prior research on L1 influence on article acquisition by non-native speakers of English focused on article use and interpretation concerning the semantic contexts (e.g., definiteness vs. specificity, and generic vs. non-generic). There is a relative agreement that speakers of [+ART] languages make significantly fewer errors when compared to those whose L1s are article-less. It is concluded, then, that L1 is a source of
L2 article-related errors. However, only a few studies have investigated noun countability in relationship with English articles. These studies focused only on learners of English whose L1s lack the article system, and most of them neglected the role of proficiency level in the acquisition of articles in relation to noun countability (e.g., Hiki, 1991; Butler, 2002; Yoon, 1993). Only a handful of studies paid attention to understanding the role of L1 in the use of articles for the L2 in relation to countability judgment in English (e.g., Hiki, 1991; Butler, 1999; White, 2009; and Cho, 2005). These studies examine the mass-count distinction by speakers of classifier languages, such as Korean (e.g., Cho, 2005; Yoon, 1993) and Japanese (Hiki, 1991). Classifier languages (e.g., Mandarin, Korean, Japanese, etc.) do not mark plurality morpho-syntactically, while in non-classifier languages, a bare noun can have a singular and/or plural reading (Chen & Sybesma, 1999). For example, in Korean the noun *chayk* (book) and *haksayng* (student) have either singular or plural interpretations as in the following example:

```
  haksayng-un chayk-ul ilkessta
  student-TOP book-ACC read
  ‘A student read a book.’
  ‘A student read books.’
  ‘Students read a book.’
  ‘Students read books.’
```

Source: Nemoto (2005: 384)

Another difference between classifier and non-classifier languages is in the use of classifiers. In non-classifier languages, such as English, count nouns can occur directly with numerals (e.g., one book), singular-plural (e.g., a book, some books) and determiners (e.g., these books). In contrast, mass nouns cannot do any of the above. However, in classifier languages, a classifier is necessary for modifying all nouns. These languages tend not to distinguish between mass and count nouns formally, and this has been concluded to pose difficulty for speakers of these languages learning English. This is relevant to the present study to investigate whether
speakers of a non-classifier language (i.e., Arabic), which is relatively closer to English than classifier languages in terms of the existence of a mass/count noun distinction in its grammar. Unlike English, plurality is the only marker of mass/count distinction.

None of the above-mentioned studies (to the best of my knowledge) has directly addressed the role of L1 transfer in the acquisition of L2 mass-count distinction by speakers of non-classifier languages. The central aim of the current study is to contribute to greater clarity and better understanding of L1 transfer in L2 article use by speakers of non-classifier languages by investigating countability judgments and indefinite article use of Arabic speakers of English. In the Arabic language the distinction between mass vs. count and definite vs. indefinite contexts are not grammaticalized in the same way as in English.

1.2 The problem

The present study investigated whether Arabic learners of English have difficulty with noun countability. These difficulties may be related to their intuition and nonnative understanding of the countability of nouns in English. Several other factors may attribute to this problem. First, there is a difference between Arabic and English in the perception of count and mass nouns. Some linguists suggest that countability of nouns may differ from one language to another and from one culture to another (Lock, 1996; Wierzbicka, 1988). Arabic learners of English are most likely to make errors in nouns, such as *an information, *a knowledge, *an advice, *a news, and *evidences. In fact, Arabic treats such types of nouns and many others as countable whereas English counts them as mass nouns. Because L1 influences L2 learning, Arabic learners are most likely to perceive them as count nouns and employ indefinite articles or make them plural by inserting plural markers. The other factor is related to the ambiguity in the distinction between mass and count nouns in English. English Traditional grammarians suggest
that the distinction between nouns in English is binary (e.g., Christopherson, 1939; Jespersen, 1949). In other words, researchers have classified nouns into two categories: mass and count. In contrast, Allan (1980) argues that the majority of nouns in English are used in both categories, depending on the context, but he claims that English nouns have countability preferences. As such, some nouns more readily enter the mass category than others and the reverse is also true. The details about this issue will be explored further below. However, this ambiguity could be among the factors that cause difficulty for learners of English regarding the judgment of countability.

Cross linguistic differences between Arabic and English further complicate the acquisition of English articles. Unlike English, Arabic does not distinguish between mass and count nouns in the same way English does. That is, the use of (in)definite articles (or lack of them) is not related to whether nouns are mass and/or count; the context plays a role in determining the singular and plural forms of the noun. Kharma and Hajjaj (1989) and Zughoul (2002) among others argue that the use of the English (in)definite articles is a major source of difficulty for Arabic speaking learners of English. Arabic L1 interference is one of the major sources of difficulty (e.g., Willcott, 1978; Scott & Tucker, 1974; Khanji, 1981; Kharma, 1983).

At this point, it is important to give a quick comparison between the article systems in the two languages in order to highlight the source of difficulty. English has a tripartite system to indicate definiteness (and lack thereof), namely: a/an, the and zero¹, while Arabic

---

¹ Chesterman (1991) claims that the zero article comes in two types; the zero and the null article. First, the zero article takes place mostly with indefinite mass nouns (e.g., milk) and plural count nouns (e.g., apples). It can also be used to describe generic and nonspecific nouns, especially in the plural count forms. The null article is the most definite of the articles and it occurs mostly with bounded singular proper nouns (i.e., entities with an exterior boundary that ... is limited a priori), (Chesterman (1991: p.86). In addition, it can also be used with certain singular count nouns. Refer to Chesterman (1991) for more details.
employs a binary system. Arabic has a definite article, which is prefixed to the noun and equivalent to the. There is no indefinite prefix; instead, there is an add-on process called nunation (i.e., suffixes that mark case ending resulting in the forms –un, -in, -an) to mark indefiniteness. This occurs only in the formal forms of the Modern Standard Arabic, and there is no audible indefinite marker in spoken regional varieties of Arabic (Schulz, 20014: 121). Part of the problem in the use of English articles by Arabic speakers stems from this main difference.

Another major difference is that Arabic often uses the definite article where English does not. It is common in the cases of abstract nouns, which normally take the definite article in Arabic, but less frequently in English. This difference results in the following errors:

- *The philosophy is not a science.
- *All men fear the death.
- *The Arabic opinion is generally anti-terrorism.

Another case in point is that, in Arabic, mass nouns take the definite article when they refer to the whole kind, which may trigger the following errors:

- *The milk is nutritious to the body.
- *The silver is cheaper than the diamond.
- *The glass is easier to break than the wood.

One last case pertains to certain proper nouns that do not take the in English, but are definite in Arabic as in the following:

- *The Riyadh is the capital of Saudi Arabia.
- *He has lived in the India for three years.

In English, nouns in the generic sense come in three different forms, while only one form is possible in Arabic, which is /al/ +N(s). Compare the following two for English and the third is a frequent error by Arabs:
Another crucial difference between Arabic and English that contributes to the perception of the mass/count distinction has to do with some quantifiers. The quantifiers *much and many have one equivalent in Arabic ‘kathir’, which can be employed with mass and count nouns. It is predicted based in L1 transfer that Arab learners of English have errors such as ‘*many researches and *much students’. Zughoul (2003) points out that Arab learners of English are likely to confuse quantifiers used with count nouns with those used with mass nouns. As a result, quantifiers, such as *a great deal and *a large/small quantity/amount of, which are restricted to occurrences with mass nouns, may be used with count nouns.

1.3 Overview

The rest of the dissertation is organized as follows. Chapter II provides an overview of the concept of noun countability from three different perspectives: syntactically, semantically and pragmatically. It also gives a brief comparison of the article system in both Arabic and English with concentration on the differences that are likely to pose problems to Arabic learners of English. A brief overview of language transfer as the theoretical framework in this study is discussed. This chapter ends with a discussion of how countability has been investigated in the area of second language acquisition. Chapter III describes the methodological procedures implemented in this study including; data collection and participants’ selection, instruments, data coding, and how the survey was administered. Chapter IV presents the findings of the current study. Chapter V discusses the results in detail with regard to the research questions. Chapter VI

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2 Native English speakers often use amount with count nouns, although it is not the traditional standard
includes a conclusion, the implications of findings, limitations of the study, and suggestions for future research.
CHAPTER II
LITERATURE REVIEW

2.0 Noun countability

2.0.1 Syntactic Approach

As noted above, nouns in English are commonly classified into two categories in terms of countability. The most common terms used in the linguistic literature are mass and count. However, different scholars give different labels; countable and uncountable (Christophersen, 1939), thing-words and mass-words (Jespersen, 1933), and count and non-count (Quirk et al, 1985). The syntactic and semantic properties of these classes of nouns make them behave differently at the grammatical level. This section is devoted to the syntactic distributional properties.

Jespersen (1933) indicates that noun phrases are syntactically distinguished according to their co-occurrence with cardinal numbers, determiners (e.g., a/an etc.), quantifiers (e.g., many, much, few etc.), and the plural form. Jespersen provides two formal differences to distinguish thing-words (count) and mass-words (mass). While count nouns are modified with quantifiers such as one, two, many, each, a/an, mass nouns cannot take such adjectives but may be qualified by much, little, an amount of. Even though this criterion adequately describes some differences between count and mass nouns, it is not sufficient to decide the countability of a noun.

Following Jespersen (1933), Chierchia (1994) points out that count and mass nouns behave differently according to certain syntactic restrictions. Count nouns co-occur with some cardinal numbers, some quantifiers, indefinite articles, and the plural form. On the other hand, mass nouns cannot co-occur with these restrictions but occur with others such as much and little. These syntactic elements are tested below with both count (in 1) and mass nouns (in 2):

1. (a) *Each* book has a different color. [quantifier]
(b) I have *many* books at home. [quantifier, plural form-s]
(c) Can I borrow *a* book? [indefinite article]
(d) *I have *much* book at home. [quantifier]
(e) I bought *two* books yesterday. [cardinal number and plural form]

Notice that in the above set, the word book co-occurs with all the syntactic elements (e.g., the quantifiers *each* and *many*, the indefinite article and the plural form). In example (1d) the use of much before the count noun is not permissible. Examples in 2 below show the reverse, in that, the mass noun furniture fails to co-occur with all the syntactic properties except for *much* in (3e):

2. (a) *I bought *one* furniture yesterday. [cardinal number]
    (b) * Can I sell *a* furniture. [Indefinite article]
    (c) * There are furniture at the store. [Plural form –s]
    (d) * I have *many* furniture at home. [Quantifier]
    (e) They don’t have *much* furniture. [Quantifier]

Jespersen (1933) himself finds out that many words may be used as both count and mass. That is, relying only on the syntactic properties of NPs is insufficient for the determination of noun countability. He gives a list of nouns that can fit both categories based on the context in which they occur, such as *cheese, iron, cork, paper, talent, experience, time* as in (3):

3. (a) I have been there four or five times. [count]
    (b) I have no time for such nonsense. [mass] (Jespersen, 1933: p. 207).

He also acknowledges that there are some nouns that take the plural form but are treated as mass nouns, such as *dregs, lees, proceeds, belongings*, and the like. Another problem with the use of pure syntactic criteria to determine noun countability is the fact that some determiners can co-occur with both count and mass nouns. Determiners such as *some, no, the, a lot of*, and *all* are such types. In example 4, the quantifier *a lot of* occurs with a noun in plural form as in (4a) and at the same time it occurs with mass nouns as in (4b):

4. (a) Travel always provides *a lot of* experiences. [count]
    (b) We are going to need *a lot of* water. [mass].
In brief, some syntactic distinctions are useful in distinguishing count from mass nouns. However, the discussion above shows that syntactic clues alone may not be sufficient for distinguishing the two categories because there is an overlap in the use of some determiners with both count and mass nouns.

2.0.2 Semantic Approach

Allan (1986) states that consideration of the semantic properties of nouns in the count/mass distinction is essential due to the fact that native speakers’ judgment of countability is perceptually dependent on what a noun denotes or to what it refers. This section explores the semantic properties of nouns in terms of the notions ‘individuation’ and ‘boundedness’.

2.0.2.1 The Notion of Individuation

If a noun is used to refer to an individual entity or object, then it is referred to as a count noun. If it is used to refer to undifferentiated mass, then it is called a mass noun (Christophersen, 1939; Jespersen, 1949; Quirk et al, 1985).

Christophersen classifies common nouns into ‘unit-word’ (e.g., boy, book, tree) and continuant-words’ (e.g., butter, oil, water, clay). The former are countable and the latter mass. He explains that a countable noun denotes “an individual or unit that belong[s] to a class of similar objects” that is singular and complete in itself. A mass-word, on the other hand, refers to something that is continuous and extending indefinitely in space and time” (p.26).

Similarly Lock (1998) states that count nouns are those denoting discrete entities, such as (one pen, two pens etc.) and mass nouns are those that denote “undifferentiated whole”. This type is further divided into two subtypes: material and substances (oil, butter, wood, etc.) and abstract (knowledge, love, etc.).
In the same vein, Yule (1998) also differentiates mass and count nouns through the notion of individuation. He claims that this criterion is helpful in constructing indefiniteness in English as *a/an* goes with entities or things that can be individuated whereas *zero* article goes with nouns that cannot be individuated. An individual unit has clear boundaries and no parts of the unit equal the whole. For example, the word *table* is a single unit of entity, which is composed of separable parts. When decomposed, a part of the table cannot be a table by itself. In contrast, the word *oil* is non-individuated because *oil* remains oil even if it is splashed in different locations. Yule lists the characteristics of an entity when it occurs in count and mass contexts. See Table 1:

Table 1: *Characteristics of Mass and Count Nouns according to Yule (1998).*

<table>
<thead>
<tr>
<th>Syntactic sign</th>
<th>Mass contexts</th>
<th>Countable contexts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Zero article</td>
<td><em>a/an</em></td>
</tr>
<tr>
<td>a.</td>
<td>Non-individuation</td>
<td>a. Individuation</td>
</tr>
<tr>
<td>b.</td>
<td>Indistinct boundaries</td>
<td>b. Clear boundaries</td>
</tr>
<tr>
<td>c.</td>
<td>Any part equals the whole</td>
<td>c. No part equals the whole</td>
</tr>
<tr>
<td>d.</td>
<td>Treated as substance-like, mass</td>
<td>d. Treated as discrete, separate</td>
</tr>
<tr>
<td>e.</td>
<td>Often treated as abstract</td>
<td>e. Often treated as concrete</td>
</tr>
<tr>
<td>f.</td>
<td>Cannot become plural</td>
<td>f. Can be plural</td>
</tr>
<tr>
<td>g.</td>
<td>Co-occur with much</td>
<td>g. Co-occur with each and many</td>
</tr>
<tr>
<td>Typical Examples</td>
<td>Knowledge, education, love sincerity, music etc.</td>
<td>Car, book, house, track, man etc.</td>
</tr>
</tbody>
</table>

Quirk et al. (1985) also claim that nouns that refer to individual entities are countable and those that refer to undifferentiated mass are called non-countable. Based on this conceptualization, they propose a classification of nouns in light of the mass and count distinction as in Table 2:
Table 2: *Classification of Nouns*

<table>
<thead>
<tr>
<th></th>
<th>COMMON</th>
<th>mass</th>
<th>PROPER</th>
</tr>
</thead>
<tbody>
<tr>
<td>count</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>concrete</td>
<td>abstract</td>
<td>concrete</td>
<td>abstract</td>
</tr>
<tr>
<td><em>bun, pig, toy...</em></td>
<td><em>difficulty,</em></td>
<td><em>butter,</em></td>
<td><em>music,</em></td>
</tr>
<tr>
<td><em>remark...</em></td>
<td><em>gold...</em></td>
<td><em>homework</em></td>
<td><em>John, Paris</em></td>
</tr>
</tbody>
</table>

Regarding concrete and abstract distinction, Quirk et al. state that both of the categories of count and mass nouns contain the subcategories of concrete and abstract nouns. By definition, while concrete nouns refer to entities that can be quantified and experienced by the senses, abstract nouns cannot be quantifiable or experienced by the senses. Quirk et al claim that there is a considerable overlap between abstract and non-count nouns because there are instances of abstract nouns in the count sense, such as *remark/remarks* and in the non-count sense, such as *knowledge/*knowledges*. Put simply, even though abstract nouns can be countable, a greater number of abstract nouns are likely to be noncount. This overlap may lead learners of English as a second language to overgeneralize and treat all abstract nouns as noncount.

**2.0.2.2 Boundedness**

Some scholars argue that mass and count distinction can be explained by the semantic concepts of *boundedness* for count nouns and *continuousness, replicability* or *expansibility* for mass nouns (e.g., Langacker, 1991; Frawly, 1992; Huddlestone, 1994).

Langacker (1991) points out that the semantic concept of boundedness is essential in distinguishing mass from count nouns. Bounded nouns are internally organized. They can be viewed as composed of parts and thus conceptually heterogeneous. Unbounded nouns, on the
contrary, tend to be homogenous with little or no internal structure; they are, relatively speaking, uniform and internally undifferentiated. Riddle (2013) points out that the composition and characteristic use of individual lexical items can reveal a conceptual basis for the mass and count uses. She argues that “The arbitrariness of word meaning in terms of the mass-count distinction is better understood as the conventionalization of a particular point of view about a slice of reality as opposed to another point of view.” (p.2). Consider the first pair of examples:

5. (a) I love chocolate. (mass/uncountable: unbounded)  
(b) Would you like a chocolate? (count/countable: bounded)

In (a) above, chocolate is unbounded as it refers to a substance (or a mass of chocolate); it has no internal parts, and it is made only of one type of chocolate and nothing else. Although chocolate in such context is typically mass noun, Riddle (2013) claims that it can be unitized when a special name such as kisses is coined via metaphorization as in the case of Hershey’s chocolate kisses. In this context, she argues that “the noun in this new use usually occurs with the countability of the word in context which is the basis for the metaphor.” (p.4).

Example (b) above gives a different sense of chocolate – that of being bounded as a piece of candy, where the entity does have pieces and is internally composed of different parts. In other words, a chocolate is usually composed of a covering, a filling and so on. These parts heterogeneously make up the entity in its bounded state.

Because they have internal structure, bounded entities cannot be expanded or contracted without losing their status. Again, refer back to example (b) a chocolate. If the covering is removed or if the filling is subtracted, it can no longer be called a chocolate. In some cases, alternation to the composing parts affects the discreetness of the entity as a whole. However, as a
mass of chocolate (unbounded), expansibility is possible; if one subtracts or adds more chocolate, the entity remains unaffected because it is continuous and non-composite. Even if a piece of an unbounded chocolate is extracted, that piece still retains the properties of the whole.

Expansibility affects replicability or iteration. Bounded nouns can be repeated, while unbounded entities cannot. Put differently, bounded entities can be incremented or divided into units to demarcate one unit from another. Unbounded entities, given that they are inherently undifferentiated, cannot be incremented, repeated or replicated. In this view, repetition of an unbounded noun (chocolate >> more chocolate) produces more of the same entity, and thus is continuously incremented. Consequently, such nouns can neither be countable nor take the plural form. On the other hand, repetition of a bounded noun (a chocolate >> more chocolates) produces another instance of the same entity and thus is repeated or iterated. Such nouns are considered countable and can be pluralized.

The above scenario is not always straightforward. Frawley (1992) demonstrates that the mapping between bounded entity and the singular form of the noun and the mapping between unbounded entities and the plural form of the nouns are not always in agreement. He observed several problems in this regard. First, there are some words labelled under mass plurals which only occur in plural form such as oats/*one oat, coffee grounds/*five coffee grounds. Second, there are mass nouns that occur only in the singular. For example, the word furniture does not seem to have the semantic properties of the typical singular uncountables such as butter and meat. In this example, meat is an unbounded substance that is likely to be mass as it is composed internally of homogeneous components, whereas furniture is a heterogeneously composed mass. It appears in singular form even though it semantically has a collective meaning, it should be pluralizable. Third, there are count nouns that appear in the plural (Dual objects). Scissors and
pants are typical examples of this type. One criterion of count nouns, which refers to single bound entities, is that they can be enumerated, such as a book, three books and so on. Frawley questions why is it formally disallowed to have *a scissor, *one pant even though they are composed of single entities with clear boundaries? Finally, it is possible to have countables with no plural marker. Given that boundedness motivates countability and countability motivates plurality, why are nouns such as hair, a hair possible and *the hairs is not?

To explain this irregularity, Frawley (1992) adapted Wierzbicka’s approach. This approach states that there is a close connection between the semantic properties of a word and its surface form. She argues that “these irregularities would disappear if the locale of incrimination, not internal homogeneity per se and continuousness, is understood as the controlling property of singularity and plurality” (p.87).

In response to the first problem of mass plurals discussed above, Wierzbicka states that all entities called mass plurals are composed of individual constituents, but these constituents are not relevant to their perception. It is normally true that coffee grounds have pieces, but counting the pieces is not worthy or relevant. Plurality comes from the fact that it is countable in principle as it is composed of pieces, whereas a mass sense comes from the irrelevance of counting the pieces. Thus, such mass plurals are fuzzy and unbounded but with countable constituents.

In the second problem furniture is a singular mass noun like the canonical noun butter. However, furniture is different from butter in its internal structure. Unlike butter, furniture is internally differentiated; butter is constituted of homogenous entities whereas furniture is composed of heterogeneous entities and these components are different from each other (e.g., chair, table, sofa etc.). Due to the internal heterogeneity of its referent, furniture must not be a
singular mass noun as singularity follows from internal undifferentiated entities. According to Wierzbicka, the idea of counting implies objects of the same kind, while *furniture* is composed of entities of different kinds, which cannot be counted together due to the fact that they are perceived differently.

Referring to countables normally appearing only in plural forms, again the answer is related to how boundedness relates to the entity. These nouns are entities that have two identical parts fulfilling the same function within the whole object. The word *scissors*, for instance, has clear differentiated constituents and these constituents (semi-separate parts) are of the same kind. In the same way, *pants* encodes entities that consist of discrete parts. Wierzbicka, among others, explains that if the two semi-separate parts are separated, the objects’ function can no longer be performed. These dual objects do not have singular forms and take plural verb agreement since they are seen as being composed of individual parts that do not achieve the status of separate objects.

With regard to the fourth problem that these are some countables with no plural, Frawley (1992, p. 88) gives the following explanation based on Wierzbicka’s approach:

“*If plurality is motivated by bounded entities to be counted, whether internal to the entity or as a function of the counting of the entity as totality itself, then there may be entities that are bounded as a whole, but whose constituents or aggregations are either not bounded or are irrelevant to bounding.*”

In brief, the semantic count/mass distinction is not only marked for whether a noun is viewed as an individual entity or an undifferentiated mass, but also for other semantic concepts such as individuation, boundedness, expansibility. The discussion has also considered the
divergence of boundedness and expected surface forms, like mass plurals, and touched on Wierzbicka’s proposal to come up with a general account for the exceptions.

2.0.3 Pragmatic Approach

Many researchers (Parsons, 1970, 1979; Bunt, 1979; Allan, 1980; Mufwene, 1984) argue that most English nouns can be used as count and mass. Mufwene (1984) suggests that many nouns can fit either category depending on the context. The meaning of the word is not only determined by the ontology of the word, but rather by the perception and conception of the speaker. This view emphasizes the fact that mass/count distinction is not only derived from the inherent meaning of the word, but it can be dependent of the speaker’s communicative intent.

In line with this view, the mass use of some typical count nouns, such as *apple*, is not uncommon even though such a noun is considered conventionally count. When count nouns are used as mass, there is a semantic implication that the individual discrete entity is just not focused on and become ‘stuffs’ (Wierzbicka, 1988). Consider the following set of examples (Falkum, 2010: p. 16-17): In the examples below, (6a), the noun *rabbit* is used to denote the animal, its meat in (6b), its fur in (6c), and unspecified rabbit “stuff” in (6d).

6. (a). A *rabbit* jumped over the fence.
   (b). We’re having *rabbit* for dinner.
   (c). The model wore *rabbit* on the catwalk.
   (d) After a tractor had run over the body, there was *rabbit* splattered all over the yard.

Likewise, Langacker (1991) argues that many nouns which are thought of as typically count or as typically mass can be used as nouns in the opposite category in sometimes, unusual contexts. It is not very hard to think of a context in which a noun like *cat*, which is normally count, is used as mass noun:

7. After I ran over *the cat* with our car, there was *cat* all over the driveway.
Even though Wierzbicka agrees with the notion of countability, she does not believe that every noun can be used in either mass or count depending on the context. She agrees with Allan (1980) that based on this view sentences may yield odd meanings that are semantically unacceptable. In other words, some count nouns cannot be used as mass nouns because this violates some semantic constraint during inversion.

8. Johnny is very choosy about his food. He will eat book, but he won’t touch shelf.

In example (8), Wierzbicka (1988) claims that the singular bare nouns book and shelf cannot be used as mass nouns as there is a semantic constraint applied to these words. The following quote is from Wierzbicka explanation of this issue:

The point is that words such as apple or egg as names of discrete objects include edibility in their meaning, and there is a general semantic rule in English (and in many other languages) which allows names of edible objects which have edibility encoded in their meaning to be used also as names of non-discrete food stuffs derived from those objects. There is no similar rule, however, which would allow names of combustible objects to be used as names of combustible staffs, or names of objects which can be eaten but which don’t have edibility encoded in their meaning (such as book or shelf) to be used as names of food stuffs (Wierzbicka, 1988: p.522).

In summary, this section was devoted to the cognitive approach of noun countability in English. The discussion has shown that countability is not an inherent feature of nouns. Lock (1996) argues that nouns should not be classified as mass and count, but rather their usage should be classified into mass and count. For learners of English, Lock suggests that it is important first to learn the countability status of a noun in the meaning and the context most likely to be encountered. With advancement of their proficiency, learners may manipulate countability in different contexts.
2.0.4 Traditional and Non-Traditional Views of Countability

There are two different approaches to the countability status of nouns: binary distinction and non-binary distinction. The binary distinction has been supported by several scholars (Christophersen, 1939; Jespersen, 1949; Quirk et al., 1985). The non-binary theory was proposed by scholars such as Allan (1986) and Larsen-Freeman (1983).

2.0.4.1 Binary Distinction

Traditionally, the countability of English nouns has been classified as either mass or count. Christophersen (1939) classifies nouns into “unit-word” and “continue-words”. Jespersen (1949) categorizes them as “thing-words” and “mass words”. These scholars and others based their classifications of nouns on the semantic and syntactic properties of nouns. Researchers such as (Chierchia, 1994; Jespersen, 1949; Quirk et al.) suggest some syntactic and morphological characteristics that determine the countability of nouns in a syntactic context, including the presence of cardinal numbers, determiners (e.g., indefinite articles and quantifiers) and plurality. The semantic distinction has been looked at from two perspectives. The first is that countability status is based on whether or not a noun denotes an individual entity (Christophersen, 1939; Jespersen, 1949; Quirk et al., 1985). The second is based on the semantic characteristic of a given noun in terms of boundedness or continuousness (Frawkey, 1992; Huddleston, 1994; Langacker, 1991; Yule, 1998).

Although the traditional binary distinction of noun countability has been frequently used to distinguish common nouns in English, it encounters some problems in explaining some cases where a noun can fit the opposite category. The same researchers, who proposed or agreed with this theory, acknowledge that there are many words that can fall into either category depending on the context. Christophersen suggests that a speaker’s perception at the moment of speaking
decides whether a noun is count or mass. He mentions that some continuate-words such as
stupidity and kindness can shift from being a continuate-word to a unit-word as in a stupidity and
a kindness when they denote an instance of the quality or a single act. Quirk et al. (1985) provide
a list of words that have dual membership. This list includes, but is not limited to, the following
words: stone, beauty, brick, difficulty and so on. The following examples show how these words
can have dual membership:

9. (a). She had many difficulties. [count]
   (b). She didn’t have much difficulty. [mass]
10. (a). She had several odd experiences. [count]
    (b). She hasn’t had much experience. [mass].

Yule (1998) and Allan (1981) attempted to find a solution to this problem and moved the
consideration of the binary distinction from nouns to contexts in that effort. That is, they
proposed that there are two different contexts: a countable context and an uncountable context.
In his view, countability of a noun does not depend on the noun itself, but rather on the context
in which it appears.

2.0.4.2 Non-Binary Distinction of Countability

Allan (1980) argues that countability is not binary, but can be seen as having eight levels
in English. He also argues that countability has to be considered in terms of noun phrases (NPs),
not as a characteristic of nouns per se. Nevertheless, nouns do have countability preferences;
some enter countability environments more readily than others. Allan identifies eight levels of
countability for English by computing words against four types of tests designed to examine how
nouns behave in different environments. The four test types are shown below:

i. A + N Test: “a/an + N is grammatical or not
   a) John bought a car.
   b) An oak is a tree.
   c) * I saw a cattle in the field.
   d) I’d like to see a mankind full of charity and sweetness.
e) *An equipment in our lab was destroyed by fire.

ii. F(uzzy) + Ns Test: “a noun can be preceded by a fuzzy denumenator such as several, many, about, …”
   a) John bought several cars.
   b) Many oaks are chopped down.
   c) I saw about fifty cattle in the field.
   d) *I have met with several mankind full of charity and sweetness.
   e) *Several equipment in our lab were destroyed by fire.

iii. EX (ternam)-PL(ural) Test: to see if an NP governs plural NP-external number registration
   a) Those cars are wonderful and I like them all.
   b) Oaks are deciduous, aren’t they?
   c) Those cattle are dying for lack of water, aren’t they?
   d) Mankind are expected to give an account of themselves before God, aren’t they?
   e) Equipment(s) are essential, aren’t they?

iv. All + N Test: to see if the form “all + N + V singular” is grammatical or not
   a) *All car is convenient vehicle for transport.
   a) All oak is flammable.
   b) *All cattle is dying for lack of water, aren’t they?
   c) All mankind is rational.
   d) All equipment was destroyed.

If a word passes all of the first three tests and fails the last one ‘All + N Test’, then the word is taken to be 100 % countable and assigned to level 7, the highest level of countability. For example, car, which is at level 7, is 100 % countable even though it fails the last test. The lowest countability level (level 0) is assigned to words such as equipment, which pass tests 3 and 4 but fail the first two tests. Allan’s eight level of countability are displayed below:
Table 3: Allan's (1980:p.563) Eight Levels of Countability

<table>
<thead>
<tr>
<th>Representative</th>
<th>Percentage</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>car</td>
<td>100</td>
<td>7</td>
</tr>
<tr>
<td>oak</td>
<td>82</td>
<td>6</td>
</tr>
<tr>
<td>cattle</td>
<td>50</td>
<td>5</td>
</tr>
<tr>
<td>Himalayas</td>
<td>44</td>
<td>4</td>
</tr>
<tr>
<td>scissors</td>
<td>40</td>
<td>3</td>
</tr>
<tr>
<td>mankind</td>
<td>26</td>
<td>2</td>
</tr>
<tr>
<td>admiration</td>
<td>14</td>
<td>1</td>
</tr>
<tr>
<td>equipment</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

In this section, different arguments regarding noun countability are gathered. Some researchers argue that noun countability is viewed as a binary distinction, in that there are only two categories; mass and count. This binary distinction fails to account for a great number of nouns that can be used in both categories. The non-binary theory, however, can account for the discrepancy of the traditional view of countability.

2.2 Language Transfer

2.2.1 Introduction

Language transfer (Odlin, 1989) is often defined as “the influence resulting from similarities between the target language and any other language that has been previously acquired” (p. 27). The role the first language has in the acquisition of the second language has been well acknowledged in the literature (e.g., Dechart & Raupach, 1989; Kharma & Hajjaj, 1989; Odlin, 1989; Gass & Selinker, 1992; Schwartz, 1998; Jarvis 1998; Ellis, 2006; and others). The extensive research on transfer did not only render language transfer as a crucial independent variable that can impact language acquisition and use, but also raised its status in the field to the extent that L1 transfer has become important enough to be examined as a primary process itself in its own right (Jarvis & Parvlenko, 2008). L1 transfer research has developed from only identifying transfer cases to addressing more profound and broader issues concerning the nature
of the phenomenon, and asking questions such as how, why, and when. At this point, it is important to give an overview of L1 transfer and some other related theories that can be utilized in the discussion of the present study.

2.2.2 Overview of Language Transfer Theory

Language transfer has been a focus of second language acquisition. Since the emergence of this theory, it has mainly passed through three stages, namely, behaviorism view, mentalism view, and cognitive view.

2.2.2.1 Behaviorist View of Language Transfer

In light of behaviorist viewpoint, learning was thought of as a process of habit formation and accumulation. In this sense, the first language is acquired by children through copying and imitating adults and those imitations were reinforced by rewards or punishments. Learning a second language was seen as formation of new habits, which may be hindered by the already established habits of the first language. That is, L1 was considered a main obstacle in the acquisition of a second language. Scholars claim that the difficulties in language learning depend on the extent to which the target language is similar or different from the native language. In one hand, the positive transfer occurs when the two languages are similar, and thus language acquisition is facilitated. On the other hand, the negative transfer occurs when the structures of the two languages are different; hence second language acquisition is hindered or delayed. This led to the emergence of the theory of Contrastive Analysis Hypothesis (CAH) by Lado (1957), which holds that (a) the level of difficulty experienced by the learners will be directly related to the degree of linguistic differences between L1 and L2, and (b) the difficulty will manifest itself in errors in that the greater the difficulty the frequent the errors are. Under this theory, he defined
language transfer through comparing and contrasting the surface structures of the L1 and L2s as follows:

“Those structures that are similar will be easy to learn because they will be transferred and may function satisfactorily in the foreign language. Those structures that are different will be difficult because when transferred they will not function satisfactorily in the foreign language and will therefore have to be changed.” (1957, p. 2)

This view received criticisms especially from mentalists during the late 1960s as exaggerating the role of L1 in the acquisition of L2 and ignoring other factors that hinder SLA, such as learners’ individual differences.

2.2.2.2 Mentalist View of Language Transfer

The role of the mother language was excessively emphasized by behaviorists, while it was viewed as trivial, under the influence of Chomsky’s UG theory (1965) by mentalists. From mentalist perspective, children are born with a specific and unique kind of knowledge, which enables them to learn a language, and such knowledge is embodied in a mechanism called the Language Acquisition Device (LAD). Dulay and Burt (1974) put forward that children do not rely on language transfer or a comparison of their L1 to acquire L2. However, with the guidance of universal innate mechanisms, they formulate certain hypotheses about the target language system and gradually reconstruct rules for the input until the mismatch between what they produce and what they perceive is settled down. Mentalists’ view is not without challenges and criticisms. With the development of the cognitive science, Shi (2005) claims that UG fails to provide cognitive psychological evidence and explanation for the process of child language acquisition.
2.2.2.3 Cognitive View of Language Transfer

The shortcomings of the mentalist view led to the rise of the cognitive view of language transfer. According to Kellerman (1977), advocates of the mentalist view believed that language learning involved the same cognitive principles as learning other types of knowledge: perception, memory, problem solving, information processing etc. The cognitive view hinges on the idea that typological similarities and differences are not the only predictors for language transfer, but their interactions with other linguistic factors increase the probabilities of transfer (Faerch & Kasper, 1987). These factors include language level, social factors, markedness, prototypicality, language distance and psychotypology, and developmental factors (Ellis, 1999).

The concept of markedness has been one of the key factors in language transfer. It was brought into SLA research by several scholars (e.g., Eckman, 1977; Zobl, 1983; Hyltenstam, 1984; Ellis, 1994 & 2000). This theory initially emerged as an extension of the idea of language typology, which expanded the concept of markedness from being internal to one language to being external to all natural languages, and hence features that are attested in most languages are considered to be unmarked, whereas those that are present in one or a few languages are marked. This gave rise to the emergence of the Markedness Differential Hypothesis (MDH) by Eckman (1977) in which he claims that transferability is determined greatly by typological markedness. It can be summarized in the following lines:

“Those structures that are similar will be easy to learn because they will be transferred and may function satisfactorily in the foreign language. Those structures that are different will be difficult because when transferred they will not function satisfactorily in the foreign language and will therefore have to be changed.” (1977, p. 2)

In spite of the fact that Typological Markedness contributed to the enrichment of SLA research as it provided reasonable clarifications for many pendent issues in language transfer
studies, it has its own shortcomings. It has been criticized for its vague definition of markedness because of the discrepancy between theory and description in linguistic field. This drawback made it difficult to identify which language features are marked or unmarked in relation to others. This inspired Kellerman (1977) to come up with the cognitive theory of markedness, which defined markedness in light of native speakers’ perceptions of similarity. This is also called Prototypicality.

2.2.3 Prototypicality Theory
Kellerman is one of the early pioneers who investigated the role of psychology in L1 transfer. He suggested that native speakers’ perception of semantic features could be utilized to predict transferability. Prototypicality is, in principle, a cognitive version of markedness theory. It refers to the learners’ perceptions of their own languages. In his cognitive perspective, marked features are perceived as infrequent, irregular, semantically or structurally opaque, or in any other way exceptional, and the transferability of such features will be inversely dependent on their degree of markedness (Kellerman, 1983). That is, the perceptions, that learners have, lead them to categorize structures as either potentially transferable or potentially non-transferable. The transferability of L1 structures are thought to be governed by their degree of markedness (Faerch & Kasper, 1987). Kellerman (1978) argues that native speaker’s intuition about the semantic space is seen as a predictor of transferability, and such intuitions will not be considerably influenced by factors such as teaching, learning and age. He further points out that L1 non-prototypical meanings and structures rarely transfer to L2.

2.2.4 Input Frequency
The relationship between the frequency of L2 input and language acquisition was noticed initially by Hatch and Wagner-Gough (1976). This led to the development of the frequency
hypothesis, which posits that the order of second language acquisition is governed by the frequency of various linguistic items occurring in the input. Ellis (1994) points out that the purpose of the frequency hypothesis is to account for the relationship between input and accuracy. That is, it hinges on the assumption that the order of accuracy of an input correlates with the acquisition of the same input. The effectiveness of this hypothesis was evident in the processing of varies linguistic aspects, such as phonology, reading, spelling, lexis, formulaic language, language use, grammaticality, syntax etc.

2.3 Language Transfer in L2 Research

Given the amount of research on language transfer on many linguistic phenomena, it is not surprising that L1 transfer has been detected to play a central role in the acquisition of the article system in English. Studies comparing learners whose L1s differ in having or lacking article systems have often yielded significant differences between the groups; learners speaking languages that lack articles make errors more frequently in their use of English articles than those who natively speak languages that share some common features of articles with English (e.g., Ionin & Montrul, 2010; Ionin et al., 2008; Snape, 2008; Zdorenko & Paradis, 2008). The differences between learners from different [+/- ARTICLE] backgrounds are attributed to the features of the learners’ mother languages.

The effect of semantic contexts (e.g., definiteness vs. specificity, or generic or nongeneric) has been the primary focus of the research investigating the role of L1 on the acquisition of the English articles. In contrast, judging noun countability has been neglected in research of this subject even though countability judgments are of equal importance for achieving a better understanding of the articles. There have been quite a few studies focusing on L1 transfer in countability judgments. However these studies have been exclusively conducted
on classifier languages, such as Korean and Japanese. In Korean, for instance, *haksayng* (student) have either singular or plural interpretations depending on the context.

In light of the general view of language transfer, one major difficulty has to do with the distinction between mass and count in English and Arabic. Kharma and Hajjaj (1989) claim that this distinction is language-specific, which means that items belonging to one category (e.g., mass) in one language do not necessarily belong to the same category in the other language. They point out that *leisure, homework,* and *research* are mass in English, but their counterparts in Arabic fall under the countable category. As a result, because of the influence of their L1, it is common that Arab students commit the following types of errors: (i) they tend to form plurals of such nouns (e.g., *leisures, homeworks,* and *researches*); (ii) they may also use *a/an* with each of these by false analogy of other count nouns (e.g., *a leisure, a homework*); (iii) they sometimes employ *the* with the names of substances such as *sugar, milk, water, air* and so on, due to the fact that these nouns are definite in Arabic (Kharma and Hajjaj, 1989). These examples present fertile ground for the application of Prototypicality Theory, mentioned above. Native speakers of Arabic perceive the previous nouns as count in that they can take the plural marker in Arabic.

English requires marking countability status of nouns in forming NPs, and the countability feature is captured through the use of English articles and plurality; that is, the choice between *a/an* and *zero* article for indefinite singular nouns indicates the noun’s status (i.e., mass vs. count). On the other hand, the countability of nouns in Arabic is not associated with the use of the articles, for mass and count nouns can be both definite and indefinite, but are rather associated with [+- plural]. The task facing learners is to reconfigure the countability features from the way they are represented in Arabic into new configurations with the use of...
articles and plural markers on possibly different lexical items in English. This basically involves teasing apart the relevant features from the way they are assembled in Arabic. For example, the lack of the indefinite article (except for nunation in formal language) in Arabic does not indicate the mass status of the noun, whereas it does in English. Thus, Arabic learners of English have to learn to link the use of the indefinite article and plural markers in English because the mass-count distinction is associated with these features. When the lexical item in the target language is identified (e.g. information), the learner has to acquire the ways in which [+/- count] features are realized in English. This task for Arabic speakers is partially a new way of distributing the features given the differences in the use of articles between the two languages.

Given the complexity of the process, it would be difficult to anticipate where in the process, the learner makes the error and what is the triggering reason. Lardiere (2005), however, notes that “one of the greatest sources of difficulty is considered to be transfer of representations of how the same features are assembled in lexical items in L1” (p.187). Given that Arabic has the count/mass distinction, it is possible for learners to rely on their L1 knowledge to make correct countability judgments of many English words, but not all: Arabic speaking learners of English are likely to have their own categorization of mass and count nouns in accord with their native knowledge. This knowledge may explain the improper use of articles which is closely related to the judgment of countability of nouns in English.

2.4 Previous Studies on L2 Acquisition

2.4.1 Introduction

A number of researchers observe that many EFL and ESL learners are faced with problems related to articles (Kharma, 1981; Master, 1987). Much research has been carried out on the sensitivity of learners to the acquisition of English definite and indefinite articles. The
focus has mostly been on related features such as definiteness and specificity. These studies have covered languages that contain an article system as well as languages that lack it. Only a few SLA studies have investigated the importance of the semantics of nouns and noun countability in the use of English articles. Rather, the focus has mostly been on error analysis rather than on the perception of noun countability and how learners’ awareness of this aspect might yield progress in learning the proper use of articles. Since the current study focuses on the use of English indefinite articles in relation to noun-countability, the literature review will be divided into two sections. The first section is limited to studies related to the acquisition of English articles by non-native speakers. The second section is devoted to previous studies that investigate noun countability and its role in the mastery of articles in SLA.

2.4.2 Previous L2 Studies of the Acquisition of English Articles

As mentioned above, many studies have investigated errors made by learners of English. The main trend of these studies is the investigation of features related to definiteness and specificity. Several researchers (Huebner, 1983; Master, 1997; Parrish, 1987) agree English articles are acquired in different stages. In other words, their results indicate that the definite article the is acquired first and the indefinite article a/an is acquired in a later stage.

Kharma (1981) conducted a study on undergraduate students in Kuwait to investigate the use of English definite and indefinite articles by Arab learners of English. He was one of the earliest researchers to note that the English article system is a major problem facing Arabic speaking learners of English. He found that article related errors account for 25% of the errors in general, with the highest error rate for the indefinite article and the lowest for in the definite article. The results of the production task that he used in his study showed that 61% of errors were instances of switching the articles: “Ø-for-a” (46%), “the-for-a” (15%). Overuse counted
for the remainder with the largest types of error being “a-for-the” (27%) and “a-for-Ø” (8%). He concluded that language interference was behind the high error rate in the use of the articles.

In addition, several other researchers (Chaudron & Parker, 1990; 1983; Master, 1987; Young, 1995), have classified articles according to the system proposed by Huebner (1983) and analyzed NPs based on Bickerton’s (1981) model of semantic universal features of the referents “specific referent [SP]” and “referent assumed known to hearer [HK]”. There are four combinations of these features: [-SR] [+HK] for generic nouns, [+SR] [+HK] for referential definites, [+SR] [-HK] for referential indefinites and [-SR] [-HK] for non-referential nouns. There was general agreement that lower level learners of English tend to overuse the definite article the especially in contexts where the information was assumed to be unknown to the hearer and refers to a specific referent [-HK, +SP]. They found that overuse of the in such contexts decreases as learners’ proficiency advances.

Master (1987) conducted a study on two different groups of learners: the first had participants whose L1 has an article system [+ART] (e.g. Spanish and German), and the second had participants whose L1s lack the article system [-ART]. He concludes that the article system is acquired at an intermediate level by those who speak languages with an article system, whereas the acquisition of English articles is delayed until the advanced level for those who speak article-less languages. He notes that speakers of [+ART] languages tend to overuse the, while speakers of [-ART] languages tend overuse zero article. This result led Master to argue that L1 grammatical systems have an influence on the acquisition of L2 grammatical structures. He states that the definite article seems to be acquired independently from a and zero. He also argues that “countability appears to cause the most persistent difficulties in article acquisition” (p. 175) and stresses the importance of teaching countability prior to articles.
Another major study on second language acquisition that deals with article systems was conducted by Parrish (1978). In her longitudinal study, she investigated the use of *the*, *a* and *zero* articles by observing and recoding a Japanese adult who arrived in the U.S. three weeks prior to the study. Her results indicated that the accuracy rate of *zero* article started at 95% at Time 1 and continued to progress until it reached 100% in Time 12. However, there was a massive overuse of *zero* article in inappropriate contexts (i.e., contexts where *the* and *a* are required). The accuracy rate of *the* started around 33% and reached 84% at the end of the study. However, the accuracy rate of *a* fluctuated as it started at 20% and ended at about 60%, but there were ups and downs in between. She thus argues that *the* is likely to be acquired before *a*. She also points out that there were instances where the learner repeatedly marked NPs with the same inappropriate article. For instance, the noun *moon* occurred five times with the *zero* article in her production in contexts where *the* is the appropriate article. She also notes that the Japanese subject made errors with some idiomatic expressions, proper nouns and frequently used expressions such as *go to school*. She suggests that these errors can be better explained by the notions proposed by Hakuta (1976): *prefabricated patterns* and *internal consistency*. By *prefabricated patterns* he means, “patterned segments of speech without knowledge of their underlying structure, but with the knowledge of which particular situations call for which patterns” (p. 287). Some examples are *go to the bathroom, in the morning, watch TV*. The internal consistency refers to “a learner’s attempt to keep related linguistic forms within his/her system consistent with one another” (p. 287).

### 2.4.3 Previous studies of Countability status in L2.

As can been seen from the discussion above, even though some researchers have attributed the misuse of articles to the confusion in the understanding of noun countability, they
have not provide much explanation. Thus, this section is devoted to studies that primarily studied the role of understanding NP types in the use of English articles.

There are several studies that have investigate the acquisition of English articles by non-native speakers of English with concentration on the role of mass-count distinction in the mastery of the article system (Master, 1987; Hiki, 1991; Yoon, 1993; Young, 1995; Butler, 2002). They agree that misjudgment of count status of NPs affects L2 learners’ use of articles. It is noteworthy that all these studies were conducted on [-ART] type of languages.

Hiki (1991) investigated the influence of noun countability on the use of the English article system. The study was motivated by pervious research on native English (Allan, 1980; Christophersen, 1939; Jespersen, 1924: Quirk et al, 1972). Hiki took countability, definiteness, and genericness as important factors that influence learners’ use of English articles and plural forms. He hypothesized that there would be difficulty in countability selection related to noun class, countability environment and genericness. The study involved Japanese and other EFL learners from different linguistic backgrounds in addition to native speakers of English. He chose 5 nouns from each of the four noun classes (individual, abstract, material, and proper) for use in three tasks: a) judgmental task, b) retrospective task and c) production task. There were two groups of participants who took part in this study. The first group was ESL learners, and the second group was native speakers in order to provide baseline data for the sake of comparison. The first group consisted of 42 participants (15 females and 27 males) enrolled in level 5 of the center of English language training at Indiana University. The nonnative-speaker group represented 11 different linguistic backgrounds. The native speakers group contained 50 participants (35 females and 15 males). The results revealed that the mean countability misjudgment rates were not the same across the hypothesized factors. Overall, the countability
misjudgment rate for all test items was 33%, which means about one third of the participants made countability errors. He also found that the means of countability misjudgment rates were different across noun class, countability environment and generic-vs-non-generic uses. Concerning noun classes, the findings revealed that the greatest number of countability misjudgments were with abstract nouns, especially in editing tasks. That is, Abstract Nouns (47%) were significantly higher in the countability misjudgment rate than Individual Nouns (29.2%), Material Nouns (25.2%), and Proper Nouns (10.4%). Regarding the countability environment, a plural environment (32.3%) is likely to be more difficult for learners than the singular environment (26.4%). In terms of genericness, the learners had more difficulty in the selection of articles in generic contexts (42.4%) than non-generic contexts (16.7%).

It was concluded that abstract nouns, in both the plural environment and generic use cause difficulty for learners with respect to countability. The number of countability–inappropriate NP forms in the judgment task accounted for three fourths of the total error number in this task. The retrospective task revealed some insights on the nature of learners’ misjudgments about NP forms. The production task revealed that there is a relationship between noun class and countability environment, and that these together may be the primary cause of the difficulty of NP form/countability selection.

Around a decade later, another study was conducted by Butler (2002) on Japanese learners of English. This study investigated the employment of the metalinguistic knowledge by L1 Japanese learners of English to comprehend English articles. For the purpose of her study, she recruited 80 Japanese college students and 20 native English speakers. Butler used four different tasks and presented them in the following order: “fill-in-the-blanks”, “interview task”, “confidence assessment” and “judgment of countability”. The results showed that the
performance of the participants in the cloze test varied according to their proficiency level. In other words, the higher the proficiency level of the participants, the more accurate the use of articles. A sideline interest in this study was to test noun countability. Butler included the role of context in the realization of articles and noun countability. She had three hypotheses in her analysis of these factors in relation to proficiency level: (a) context-insensitive hypothesis, (b) hypothesis that showed sensitivity to inappropriate contextual cues, and (c) hypothesis that showed sensitivity to a range of relevant contexts. The findings indicate that participants with lower levels of proficiency took the first approach as they were strongly influenced by a set of rules (i.e., fixed rules of articles and noun countability) they believed had been taught in the classroom or by textbooks. This, in turn, influenced their performance on both articles and noun countability. As such, the rule of context was not significant for them. The second type of hypothesis was frequently observed in learners with lower to middle level proficiency. However, participants with higher proficiency levels seemed to take the third approach in which they shifted from the static knowledge regarding articles and noun countability to the realization of the role of context to determine the correct use of articles. She concluded that as their level of proficiency increases, the participants’ realization of their errors in [+/-SP] contexts decreases. On the other hand, errors stemming from their misjudgment on noun countability, along with [+/-HK] remains problematic.

Furthermore, the type of noun class is seen to be an important factor in the correct judgment of noun countability and the proper use of articles in turn. That is, the participants found it easy to judge visible and concrete nouns; whereas, they had difficulty with invisible or abstract nouns. Buttler (2002) observed that the subjects may have more difficulty with abstract nouns because it was hard to draw boundaries for invisible entities. She suggest that structural,
semantic and pragmatic differences between English and Japanese may be the reason behind the difficulty in the use of the English article system.

Cho (2005) investigated Korean EFL students’ perception of countability of English nouns and its relation to the use of the indefinite articles. For the purpose of her study, she designed four tasks and a self-report questionnaire. These tasks, which were taken by 115 participants, included: a fill-in-the-blank task (FB), error correction (EC), a task of judgment of nouns in isolation (JCI), judgment of nouns in context (JCC), and self-report of metalinguistic knowledge of countability and learning backgrounds for countability. She found that the subjects had a flexible notion of countability. The results revealed that context and level of proficiency were also important in the perception of countability by the subjects. Regarding the types of nouns, her findings showed that the participants were likely to perform better on concrete count use of nouns as opposed to non-count use of the same type. In addition, it was found that the perception of abstract nouns did not improve with the development of proficiency.

Similarly, White (2009) conducted a study to investigate the role of noun type and countability on the choices of articles by nonnative speakers. His hypothesis was that the semantics of nouns and noun types influences the countability of nouns for English learners. The total number of participants in his study was 41 after he had excluded Arabic speakers. He did so because his focus was only on participants who speak languages that lack an article system. The participants were advanced ESL students at Michigan State University. The results showed that the influence of the indefinite context (i.e., the context that requires the use of the indefinite article) was not significant to noun type. However, the choice of indefinite article and zero article, noun type and semantic context were significant predictors. The results of this study revealed interesting points regarding noun type. For both indefinite article and zero article
choice, abstract count nouns pattern with mass nouns. In other words, neither abstract nouns nor mass nouns correlate with a and favor Ø. The participants had problems identifying the correct article with abstract count nouns. Instead of choosing a for singular abstract nouns in indefinite contexts, participants tended to choose the zero article. These results suggest that the ESL learners in this study had trouble classifying abstract nouns as countable. In addition, the findings indicated that the participants made their choices based on noun countability rather than on the semantic context.

There was relative agreement in the findings of the previously mentioned studies, including Butler (2002), Hiki (1991) and Yoon (1993). For instance, abstract nouns cause difficulty for English learners in the use of articles. This finding motivated Amuzie and Spinner (2013) to investigate the use of a/an or zero article with different types of abstract nouns. These four types, which are based on the notion of boundedness and countability are: state nouns (i.e., abstract nouns that denote static situations; thus, this category is named ‘state nouns’, such as knowledge), continuous-action nouns (i.e., nouns associated with activity verbs, such as educate, describe, and prepare), non-continuous action nouns (i.e., abstract nouns that denote non-continuous actions, thus named ‘non-continuous action nouns’, such as jump or arrive), and bounded independent nouns. The last category consists of a subset of nouns that are not derived from or closely associated with verbs or adjectives (which we are calling ‘independent nouns’). In this subset, only highly bounded nouns are included, that is, nouns with boundaries that are observable in time and space. For example, the boundaries of a sentence can be heard in speech or seen in a written text. These boundaries are more concrete and bounded than some other independent nouns, for example literature. They considered these categories to exhibit different
degrees of boundedness. Fifty Korean intermediate-level learners of English were recruited to do a binary forced choice task, where they had to provide *a/an* or *zero* for nouns in context.

Amuzie and Spinner’s study was mainly concerned with whether the type of noun had an influence on the use of the proper article or not. The participants exhibited a higher rate of accuracy with bounded independent nouns, whereas the rate of accuracy was lower with continuous action nouns. Non-continuous action nouns were the most difficult as the participants’ rate of accuracy was the lowest. They attributed these findings to the possibility of learners’ relying on perception of concreteness as opposed to abstractness. That is, concrete nouns are easily connected to the visualization system in the brain. The researchers claim that “concrete words are higher in context availability and visualization ratings than abstract nouns” (p. 427). They also argued that L1 might have an impact on the participants’ decision in the use of the articles. Even though Korean is regarded as a [-ART] language, Amuzie and Spinner (2013) argue that the distinction between mass and count nouns does exist by the presence or absence of the plural marker [*-tul*] in certain nouns. Based on this criterion, they assert that many of the *continuous action nouns* such as (e.g., *preparation, description, suggestion*, etc.) might be treated as countable by Koreans because they take the plural marker. *Non-continuous action nouns* such as (e.g., *cutting, dropping, falling*, etc.) may be perceived as uncountable because such nouns do not take a plural marker in Korean.

2.5 Summary of findings

In section 2.4.1, all of the studies discussed the realization of the English article system by non-native speakers of English. It was suggested by some researchers (Huebner, 1983; Master, 1997; Parrish, 1987) that English articles are acquired in different stages, the definite article acquired earlier than the indefinite article. Those who speak languages that have an article system tend to overuse the definite article in contexts where the indefinite or *zero* article is
obligatory. On the other hand, the zero article is likely to be overused by learners who speak [-ART] languages. Master (1987) first noticed that countability is an important factor that may be responsible for the proper use of articles. He, unfortunately, did not provide further explanation for this claim.

There were only a handful of studies that shed light on the role of countability as a determining factor in the use of English articles (Butler, 2002; Cho, 2005; Hiki, 1991; Yoon 1993). Hiki’s study identified the linguistic environments that pose difficulties for learners’ acquisition of English articles. However, he left unanswered questions: (1) why do learners of English have more difficulty with abstract nouns than other noun classes? (2) Is there a relationship between learners’ proficiency level and the rate of countability misjudgment?

The previous few studies have discussed the influence of countability on article choices on participants speaking [-ART] languages. This raises the following questions: (1) How do speakers of [+ART] perceive countability? Does the presence of an article system in the learners’ L1 play a role in their perception of countability? The present study is designed to find answers to these questions as it narrows the focus to learners of English who speak Arabic, which has an article system that share some similarities and differences with the English article system.
CHAPTER III
METHODOLOGY

3.1 The Aim of the study

The present study is designed to investigate Arabic EFL learners’ judgments of countability of English nouns in relation to the employment of English indefinite article and zero article. It investigates several crucial issues not addressed in previous studies that considered judgment of English noun countability. First, unlike other studies, the present study focuses on learners of English whose L1 has an article system. Second, it examines the relationship between the use of indefinite article and zero article and noun countability. Third, it also examines the role of context in the realization of noun countability. In other words, learners’ judgments of countability would differ depending on whether a noun was given in context or in isolation. Fourth, previous research suggested that the degree of difficulty of countability selection might not be the same across noun classes (Hiki, 1991). Learners might find it more difficult to make appropriate judgments of countability for an NP of some noun classes than others. This study aimed to test learners’ countability judgment on two classes of nouns; abstract and concrete. Finally, this work highlight the role of proficiency level in the use of article and countability judgments. Level of proficiency is a major factor in this study because it is widely accepted that the influence of L1 is often considered extensive with low-level learners, as opposed to those who are more proficient (Hiki, 1991). That is, low-level learners are more likely to rely on their L1 linguistic knowledge in their judgments of a noun’s countability and article use than advanced learners. These issues can be summarized in the following questions:

1- Do noun countability judgments correlate with the learners’ use of the English indefinite articles and zero article in English given that articles in Arabic (L1) are not a determining factor of countability?
2- To what extent does context aid Arabic learners of English to make better judgments of noun countability?

3- Do countability judgments correlate with noun class (concrete vs. abstract)?

4- Does Arabic (L1) knowledge play a role in the judgments of noun countability in English (L2)?

3.2 Definitions of Terms

For the purpose of this study, several terms must be given operational definitions in order to understand the goals and methods of this research. Specifically, the following term must be defined: ‘countability’, ‘the zero article’, and ‘to what extent’.

Countability is this work refers an important feature of nouns. A given instance of a noun may be either count, mass or ambiguous with respect to countability. Many nouns in English are by no mean have both count and mass senses (Allan, 1981) in that the uses of such nouns represents two distinct senses of the same lexical item rather than two distinct lexical items. (Refer to Chapter II for more details).

The zero article is also a source of problem for English learners and thus Master (2003), for example, divided the zero article into two: the zero and the null article. The former is most frequently used before indefinite mass nouns and plurals. The null article, however, is the most definite of the articles and is used before singular countables. For the purpose of this study, the zero article refers only to Master’s zero article, which is used to describe the situation in which an indefinite article is not used. (More details are in Section 2.2.2.2)

The term ‘to what extent’ refers to the score a learner obtains on a test designed to measure their ability to make decisions with respect to English noun countability judgments. Specifically, one way to determine the role the context plays in making better countability
judgments is to use a statistically significant method. For instance, if the mean score for the subjects’ performance on the task of Judgement of Countability of nouns in Context is significantly higher than their mean score for the task of Judgment of Countability of nouns in Isolation. These significant statistics indicate the role of context.

3.3 Predictions

The language transfer hypothesis predicts that Arabic learners of English will use indefinite articles a/an and zero article appropriately because their L1 has an article system that is similar to that of English. The study also predicts that the participants’ performance on noun countability judgment will improve as their level of proficiency increases. The subjects are expected to perform better regarding noun countability judgment in the tasks that give enough context. In addition, abstract nouns are expected to pose more difficulty for learners than concrete nouns.

3.4 Variables

The aim of this study is to investigate countability judgment of English nouns by three groups of Arabic learners of English who vary in their levels of proficiency. It also examines how judgment of countability correlates with the use of English indefinite and zero articles. The dependent variables are the scores of the correct judgment of noun countability in the JCC and JCI tasks and the correct insertion of the appropriate articles in the FB and EC tasks. The independent variable is the proficiency level as there are three different levels of proficiency; beginner, intermediate and advanced. These groups are classified according to their academic level in school.

3.5 Participants

This study was conducted at a university in Saudi Arabia. For the purpose of this study, 75 male undergraduate English major students were asked to participate in the tests. Even though
the researcher believes in the importance of gender in such studies, female participants were excluded because the researcher’s requests to have access to female students were rejected several times. This is due to cultural restrictions related to gender-segregation in Saudi society. Participants’ ages range from 18 to 25. The participants were chosen from the department of English language and literature for several reasons. First, students in this department specialize in English language and literature, which means that they devote more time and effort than other students do for the sake of mastering the language. Thus, if any errors are still committed by these students, they must be of the very persistent and resistant types and are, for this reason, worthy of study. Furthermore, the students are more or less equal in that they are exposed to about the same amount of English during their university career.

The participants were divided into three groups (25 participants each) based on their level of proficiency. The groups were rated beginners, intermediate and advanced. Beginner level students were in their first and second semester at the time of the study (i.e., each semester represents a level); intermediate level students were chosen from the fourth and fifth semester students, and advanced-level students were chosen from the seventh and eighth semester students. "Level", which is equal to semester, refers to 15 weeks of classes (i.e., roughly four months). Undergraduate students must complete eight levels in order to obtain the degree. It was not possible to obtain standardized proficiency scores from tests like TOFEL and IELTS. However, to ensure that there would be a difference in the level of proficiency, one level was skipped between each group of levels. For example, students in levels 1 and 2 were chosen and level 3 students were skipped, and students in Levels 4 and 5 were chosen and those in Level 6 were not.
In Saudi Arabia, prior to college level, students are exposed to English for six years (three years in elementary school and three years in high school). When students finish high school, they are likely to have received the same basic education in English. Students planning to study in the English program are required to take entrance examinations as part of the application process for this program in Al Majmaa University. At the beginning of each semester, students are allowed to write an appeal to take a replacement test if they think their proficiency level is higher than the level to which they are assigned. Written appeals must be submitted along with their teachers’ recommendations during the first week of classes. After the appeals are carefully reviewed by a committee, students can take replacement tests, which will determine if they can move to the next level or remain at the same level. During the first five semesters, students take English skills courses including, reading, writing, grammar, listening, and speaking. The minimum number of credits each semester is 18 credits. Linguistics and literature courses are offered after the students pass level five.

For validity purposes, the town from which the participants were chosen is 300 km away from the closest big city. The chance of having contact with native speakers of English is rare enough in this town to make it likely that the participants would have similar English backgrounds. Students who had travelled to an English-speaking country or had an English speaking family member at home were excluded in order to ensure that the subjects are most similar.

3.5.1 Recruitment of Participants and Procedures

The 75 participants in this study were male undergraduate English major students in the English Department at Al Majmaa University in Al Majmaa City, Saudi Arabia. Their ages ranged from 18-25. I recruited the participants through the university department and obtained the department’s permission to visit the students in their classrooms during class time where the test
would take place. There was no any kind of compensation for participants. Participants were asked to voluntarily take part in the research and were assured that there was no penalty or punishment of any kind to anything directly or indirectly related to them if they refused or decided to withdraw before or during participation. After exchanging greetings, the researcher introduced his research to the participants by saying “I am conducting a research project that aims at investigating judgment of English noun countability by Arabic speakers of English. If you are willing to participate, I will hand a copy of a written consent form and you will be kindly asked to read it and sign it yourselves indicating your agreement to participate in the study.” Those who were not willing to take the test were asked to leave the room. Upon agreeing to participate and signing the consent form, participants were asked to complete the demographic questionnaire. Once that was completed, I began explaining the test by saying “you will be handed a test paper in which you are going to respond to 119 sentences in different tasks. This test will take approximately 45 minutes to complete.” Upon the completion of the test, participants’ involvement in the study was complete. Responses and demographic information were connected only by a simple code “S1, S2, etc.” The consent forms were not physically connected to the responses or demographic information and were stored in a locked cabinet.

3.6 Instrument

The instrument utilized in this study is adapted from a previous work by Cho (2005), who investigated countability judgments of English nouns by Korean EFL learners of English. The instrument was adapted nearly as is because it fulfilled the purpose of the current study in the following ways. First, the items in the instrument were selected with attention to the need to make sure that all words used were likely to be known to the participants due to the fact that the aim was not to test their vocabulary knowledge. Second, the selection of nouns in the instrument was carried out with extreme care to include nouns that can occur in both mass and count
contexts in order to test the subjects’ awareness of countability of nouns. At the same time, the instrument included nouns that occur only in mass contexts in English whereas they can occur in count contexts in Arabic such as advice, evidence, garlic, equipment, evidence, etc. Third, Cho took care of the number of concrete and abstract nouns and controlled the number as having an equal number of items in each category. Fourth, all the words and sentences in the instrument were taken from a huge variety of naturally occurring data, both spoken and written discourse performed by native speakers of English. Fifth, the instrument had already been tested and its validity insured according the results of Cho’s results, as it tested what it was constructed for. Finally, the number of the items was kept the same to allow for comparability of results between Cho’s study and the current study, including tasks that have an odd number of items that serve as distractors as in tasks 1 and 3 and 5.

In the process of adapting the instrument for the purpose of the present study, some slight modifications were made, ensuring that they would not affect the validity of the original instrument. The sentences provided in the tasks used in the original study were designed for Korean learners of English. These sentences included some specific cultural concept and names with which Arabic learners would not be familiar. This is because some sentences could include cultural schemas (Yule, 1996), which could generate different expectations on the part of the subjects. The notion of cultural schemas refers to the role of cultural membership that is needed to fully comprehend intended meaning. This study included cultural familiarity to aid the subjects to understand the text by referring to more personally and culturally relevant scripts (Oller, 1995).

 Particularly relevant to this study, Alptekin (2006) illustrates that when cultural elements of a text are nativized to make it culturally more familiar, students can make better inferences
than when they read the original. Both Alptekin (2006) and Oller’s (1995) findings agree on the fact that exchanging certain words in authentic texts for more familiar ones helps readers to achieve better comprehension, (e. g., the names of people and places, etc.). Such words may be replaced by an element from the student’s own culture. The researcher of the present study sees Alptekin’s (2006) approach seems applicable to the present study plausible because minimize possible intervening variables in the comprehension process. I decided to nativize elements such as the names of people and places (e.g., as in 1 below), taboo words, and culture-specific concepts (as in 2) in the original text with more familiar items that fit with the culture of the target population in this study. The following are examples of the modified items presented along with the original for the sake of comparison:

1-  (a) **Original**: At Global Language Institute, we believe that learning …….language should be an enjoyable and rewarding experience.

   (b) **Nativized**: At Almajmaa University, we believe that learning …….language should be an enjoyable and rewarding experience.

2-  (a) **Original**: A few weeks ago, I received a letter from you saying that I saved ……. life by adopting a dog from your shelter.

   (b) **Nativized**: A few weeks ago, I received a letter from you saying that I saved ……. life by treating a cat run over by a car.

3-  (a) **Original**: We wanted to bring together two different types of people: those who want to read poems, and people who want to drink beer.

   (b) **Nativized**: We wanted to bring together two different types of people: those who want to read poems, and people who want to drink coffee.

In (1), the Arabic speaking participants would not have been familiar with the name of the institution in the original task. Thus, I substituted for it the name of the university where the subjects study. In (2) the concept of animal adoptation is not common in Saudi Arabia and thus I changed to a familiar concept relating to an animal. Beer (as in 3) is prohibited in Islam, and thus selling and drinking alcoholic drinks is not allowed in Saudi Arabia. Therefore, Beer was changed to coffee and wine was changed to juice. A total of 10 items were nativized throughout the tasks; these items are highlighted in gray in the appendix.
3.6.1 The Design of the Tasks

For the purpose of this study, four tasks were adapted from Cho (2005). The tasks are: (1) Fill-in-the-blank task (FB), (2) Judgment of countability of nouns in isolation (JCI), (3) Judgment of countability of nouns in context (JCC) (4) and error correction task (EC). A translation task is added by the researcher. These tasks were supplemented with two self-report questionnaires. The purpose of this task was to measure the participants’ linguistic knowledge of countability and other related issues. Each of these tasks will be explained in detail below.

3.6.1.1 Task One: Fill-in-the-blank (FB)

The fill-in-the-blank task was designed to examine learners’ ability to use indefinite articles and zero article. In this task, participants were asked to insert the appropriate article in the blank. The selection was from *a/an, zero*. Notice that the definite article was excluded from the choices because it was out of the scope of this present study. That is, the definite article is not a signaling device for judgments of countability because, unlike indefinite and zero articles, it can be used with both count and mass nouns.

This task consisted of 25 items including one distractor. A total of 12 nouns were tested in this task and each of them can be used both in count and mass contexts making a total of 24 sentences. The nouns in this task were evenly divided in terms of their class; six concrete and six abstract nouns.

3.6.1.2 Task two: Judgment of countability of nouns in isolation (JCI)

The purpose of this task was to test learners’ judgments of countability of nouns in isolation. In this task, participants were asked to judge 44 nouns in isolation. They were asked to select from options provided: count (C), mass (M), can be either count or mass (CM) and not clear (NC). The purpose of this task was to examine how the participants would determine the status of the nouns in context-free situations. This task was provided first and its results were
compared with the results of the other tasks because the same 44 nouns tested in this task were also tested in the other tasks.

3.6.1.3 Task three: Judgment of countability of nouns in context (JCC)

The purpose of this task was to examine how learners of English judge noun countability when nouns are used in context. This task consisted of 17 items and the subjects were asked to decide whether the underlined noun or noun phrase was count or mass based on the given context. The rationale for underlying the nouns in question was to make sure that the participants were not disturbed by other nouns in the sentences, which fell out of the scope of the present study. This task is different from task two (JCI) in that it might be easier to identify the countability of the nouns because of the help of the context. The participants were instructed to read the whole sentence and not to focus completely on the underlined nouns. The comparison between the results of these two tasks is important for describing the perception of noun countability and determining whether countability is fixed to the noun regardless of the context. Put simply, if there were significant differences in the results of the two tasks, the notion of countability would be regarded as flexible. If the reverse were true, the notion of countability would be best described as rigid in the participants’ perception. For example, if participant A identified the noun *stone* as count in the JCI task and identified the same noun as either count or mass in the JCC task, the notion of countability would be flexible and determined by context. However, if the same noun was marked as count in both tasks, then one could say that the participant sees countability as a feature fixed to the noun regardless of the context.

3.6.1.4 Task four: Error Correction Task (EC)

This task was designed to investigate how the participants would detect errors related to the use of articles in context. That is, this task was developed to tap the participants’ intuitions about (un)grammaticality of the NPs associated with the English articles and plurality. The task
consisted of 17 sentences, which provided enough context to decide if the underlined noun or noun phrase was grammatically correct. If an error was detected, the participants would be asked to correct the error in the blank provided below each sentence. If the sentence was correct, they were instructed to put a [✓] in front of the sentence. The rationale for underlying the nouns in question was to make sure that the participants were not disturbed by other nouns in the sentences, which fell out of the scope of the present study. Doing so might result in unreliable data, which causes unreliable results. This task and the FB task are similar in that they examine the use of English articles. However, they differ in the fact that in the FB task, the participants were asked to supply the appropriate article in correctly constructed sentences. In the ER task, the participants’ job was more complicated because not all of the sentences were grammatically correct. First, they had to identify whether the sentence was correct or not, then provide correction if the sentence was not correct.

3.6.1.5 Task Five: Translation Task

The translation task consisted of 10 short Arabic sentences, each of which included one target noun. These nouns were all count in Arabic and used in the plural form; whereas they were all mass nouns and cannot be pluralized in English. The task included five concrete and five abstract nouns. The reason why this task was short in comparison with the other tasks was that the subjects would have to complete other tasks in addition to this task in a session limited to 45-50 minutes. In this task, the participants were asked to translate the Arabic sentences into English. Because the same sentences would be translated in different ways using different structures and vocabulary, this task was piloted by 10 Arabic learners of English varying in their proficiency level. It took 6-10 minutes to be completed. One sentence had to be changed because only one subject was able to translate it in the way desired by the researcher. Thus, this sentence was rephrased to make sure that the target word is used in translation. The purpose of this task is
to measure how much influence L1 has on L2 perception of English noun countability by Arabic speakers. The error rate in this task indicates the degree of L1 influence.

**3.6.1.6 Self-Report Task**

The previous five tasks were supplemented by self-report tasks. The purpose of these tasks was to gain knowledge of the linguistic schema of the participants regarding noun countability related issues. This task was composed of two parts. In the first part, the participants were asked questions to explore their metalinguistic knowledge about noun countability in English with respect to the noun class. In fact, they were instructed to select the best answer on the following scale: *always, often, usually, seldom and never*. The second part consisted of 11 questions that examined the participants’ attitudes toward identification of noun countability in English, their learning background on countability, and the strategies used in learning countability. They were asked to choose the answer they agree with the most as in the following scale: *strongly agree, agree, not sure, disagree and strongly disagree*.

**3.6.2 Reliability Test**

All the 113 items on Part I of the instrument were subjected to reliability analysis through Cronbach’s alpha test. The results yielded $\alpha = .956$ which, according to George and Mallery (2005), indicates an excellent value for internal consistency. Since none of the 113 items would have changed the alpha value considerably if deleted, all the 113 items were kept for the analysis of the data.

In more details, the internal consistency of the instrument was evaluated for each task since there are several different constructs in the instrument. As reported in Table 6, the alpha values ranged from .931 to .651.

<table>
<thead>
<tr>
<th>Table 4: Internal Consistency Estimates for the Survey Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tasks</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

58
<table>
<thead>
<tr>
<th>Task</th>
<th>Accuracy Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task 1: Fill-in-the-Blanks (FB)</td>
<td>.850</td>
</tr>
<tr>
<td>Task 2: Noun countability Judgment in Isolation (JCI)</td>
<td>.931</td>
</tr>
<tr>
<td>Task 3: Error Correction (EC)</td>
<td>.663</td>
</tr>
<tr>
<td>Task 4: Noun countability Judgment in Context (JCC)</td>
<td>.812</td>
</tr>
<tr>
<td>Task 5: Translation (TRAN)</td>
<td>.725</td>
</tr>
<tr>
<td>Self-report Task</td>
<td>.651</td>
</tr>
</tbody>
</table>

### 3.7 Data coding and analysis

Because reporting the total accuracy scores of the participants is essential for the purpose of the present study, a descriptive analysis was conducted using the SPSS statistics software to calculate the number of correct uses of *a/an* and *zero*, and the correct judgments of noun countability. The correct response was given 1, while zero was given to each incorrect response.

The data analysis involved calculating descriptive statistics and multiple use of one-way ANOVAs to compare the three proficiency groups on their accuracy rate in each of the tasks. For example, this test was used to examine the interaction between proficiency level and the performance of the participants on the FB Task. The same test was used to identify the relationship between proficiency level and countability judgments of concrete and abstract nouns. A paired sample *t*-test was conducted multiple times in order to unveil the interaction between any two variables in the present study. For example, the test was used to examine and compare the overall score of the two related tasks the JCC and the JCI tasks. It was also used to compare the accuracy rate of the correct use of English articles in both the FB and EC tasks. Judgments of countability on abstract and concrete nouns can be compared through running the *t*-test. The Tukey multiple comparison test was also performed five times in order to identify statistical significance among the three levels of proficiency and the five tasks.

The analysis also included calculating percentages of correct answers within the five tasks and within proficiency groups. All statistical tests of significance were performed at level
of significance $\alpha = .05$. The results of these statistical analyses were used to answer questions on the following central issues in the study: participants’ judgment on the countability of nouns in context and in isolation; their performance on the use of indefinite articles in the tasks; the relationship between the countability judgment tasks and the participants’ use of indefinite articles; and the participants’ performance on concrete and abstract nouns in both count and mass contexts.

This chapter presented the methodology of the study, including utilized and the instrument designed to gather the necessary data to achieve the desired objectives. In addition, it reviewed the aims of the study and predictions of the results. Additionally, the design, participants, procedure and methods of data analysis were covered. Furthermore, the chapter presented an account of how reliability was to be ensured.
CHAPTER IV
RESULTS

4.0 Introduction

This study investigated the judgments of English noun countability and its relation to the use of English indefinite articles by three proficiency groups (beginner, intermediate and advanced) of Saudi learners of English as a foreign language. A comparison was made between the groups of the way they judge the countability of English nouns. The 75 Saudi undergraduate students were given a written test, which contained 113 items divided into five different tasks. In scoring the data, 1 point was given to each correct answer and 0 point for each incorrect answer.

This chapter presents the results of the data analysis. The tasks were examined through statistical analysis, t-tests, one-way ANOVA and correlations tests. In t-test analyses, the mean scores were calculated as percentages to avoid biases related to unequal numbers of tokens in the tasks.

The chapter is structured as follows: Section 4.1 provides an analysis of the tasks related to the use of indefinite articles in English (i.e., FB and EC tasks). The second section presents accounts relevant to noun countability–related tasks (i.e., JCC and JCI), which are mainly concerned with the role of context in countability judgment. The next part provides an analysis of related tasks to give an answer to the third question, Do Arabic learners’ countability judgments correlate with the type of nouns? This section is followed by an analysis of the context of the noun (i.e., mass and count) of each noun category. Section 4.4 is limited to an analysis of the translation task examining the role of the learners’ L1 in countability judgments of nouns in their L2. In section 4.5, correlation tests are presented to reveal any relationship between the tasks. Finally, this chapter concludes with a summary of the findings.
4.1 Results for the Use of Indefinite Articles in Different Tasks

This section is devoted to measurements of how learners of English performed on different tasks testing the use of indefinite articles. It was plausible to test in which one of the tasks the participants perform better. The sample of this study involved 75 participants. Prior to the dependent t-test, examination of the descriptive statistics revealed that in both tasks the scores were normally distributed and within the appropriate limits for skewness. This allowed the test to be performed without concerns for its validity.

4.1.1 t-test for the FB and EC tasks

A dependent t-test was performed to compare the Mean score of accuracy of the FB and EC tasks. The results revealed that the Means of Accuracy for both the FB and EC tasks were not significantly different, $t(74) = .315$, $p = .754$, $d = .03$. The low value of the effect size $d = .03$ further indicates that the different types of tasks did not influence participants’ performance on the use of the English indefinite articles and had an almost equal percentage of success in both tasks.

Table 5: t-test Results for FB and EC Tasks

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>% success</th>
<th>95% Confidence Interval for Mean</th>
<th>t(74)</th>
<th>Sig.</th>
<th>Effect size $d$</th>
</tr>
</thead>
<tbody>
<tr>
<td>FB Task</td>
<td>75</td>
<td>.61</td>
<td>.24</td>
<td>62%</td>
<td>.56</td>
<td>-.315</td>
<td>.75</td>
<td>.03</td>
</tr>
<tr>
<td>EC Task</td>
<td>75</td>
<td>.62</td>
<td>.15</td>
<td>63%</td>
<td>.62</td>
<td>.58</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.1.2 One-way ANOVA for the FB Task

This part of the analysis aimed to partially address the question: *Does noun countability correlate with the learners’ use of the English indefinite articles and zero article in English*
given that articles in Arabic (L1) are not a determining factor of countability? In the written test given to the 75 participants, there were two tasks concerning the use of English indefinite articles. One was an FB task in which they were given 24 statements. Table 8 summarizes the descriptive statistics for the correct insertion of the English indefinite articles for each proficiency level. The data was analyzed through a one-way ANOVA, where the dependent variable was the total Mean score of accuracy in the use of the definite articles, and the independent variable was the proficiency level of the participants.

Table 6: Proficiency Level and Accuracy Rate of Employing Definite Articles in the FB Task

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>% success</th>
<th>95% Confidence Interval for Mean</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginner</td>
<td>25</td>
<td>0.38</td>
<td>0.19</td>
<td>38%</td>
<td>.30</td>
<td>.00</td>
<td>.67</td>
</tr>
<tr>
<td>Intermediate</td>
<td>25</td>
<td>0.61</td>
<td>0.14</td>
<td>61%</td>
<td>.55</td>
<td>.29</td>
<td>.96</td>
</tr>
<tr>
<td>Advanced</td>
<td>25</td>
<td>0.86</td>
<td>0.05</td>
<td>86%</td>
<td>.83</td>
<td>.75</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Preceding ANOVA, Levene’s test showed that the assumption of homogeneity of variances was violated, $F(2, 72) = 9.98, p < .001$. Thus, the Welch test of inequality of means had to be run. The results of the Welch test revealed that the assumption of unequal variances was observed, $F(2, 38.5)= 86.5, p < .001$. The independent variable proficiency level had a significant effect on the participants’ accuracy of employing the indefinite articles in the fill-in-the-blank task. The descriptive statistics (See Table 8) showed an increase in the Mean scores and Success rates from the beginner group to the advanced group. The results can be interpreted to mean that the performance of the participants on the FB task (i.e., the use of the indefinite articles) reach
higher levels of accuracy as their proficiency level progresses (Compare success rates in Table 7).

Since there were three levels of proficiency, a multiple comparison test was necessary in order to find out which proficiency level was significantly different from others. For this purpose, the analysis continued with the Games-Howell multiple comparison test, which showed that all levels of proficiency were significantly different from each other, \( p < .001 \) in all cases.

Overall, the Games-Howell results showed that there was a developmental trend in the performance of the participants on the use of the English indefinite articles in the FB task as significant improvement occurred at the intermediate and advanced levels. Figure 1 further illustrates this developmental trend in the task.

\[
\begin{array}{ccc}
\text{Beginner} & \text{Intermediate} & \text{Advanced} \\
\end{array}
\]

\[\text{Scores}\]

\[\text{Significant improvement at intermediate and advanced levels}\]

\[\text{Figure 1: Mean plot for success in the FB task}\]

4.1.3 One-way ANOVA for the EC Task

This part also addresses the same question in (4.1.2) in relation to their proficiency level. This task was different from the FB task in that it puts an extra burden on the participants to first find the error and then provide correction. Table 9 summarizes the descriptive statistics for the correct use of the English indefinite articles in the EC task for each proficiency group. Similar to
the FB task, the data were analyzed through a one-way ANOVA to compare the three levels of proficiency.

**Table 7: Proficiency Level and Accurate Use of Indefinite Articles in EC Task**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>% success</th>
<th>95% Confidence Interval for Mean</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beginner</td>
<td>25</td>
<td>0.51</td>
<td>0.12</td>
<td>51%</td>
<td>.45</td>
<td>.24</td>
<td>.71</td>
</tr>
<tr>
<td>Intermediate</td>
<td>25</td>
<td>0.58</td>
<td>0.11</td>
<td>58.6%</td>
<td>.53</td>
<td>.35</td>
<td>.82</td>
</tr>
<tr>
<td>Advanced</td>
<td>25</td>
<td>0.77</td>
<td>0.08</td>
<td>77.8%</td>
<td>.74</td>
<td>.59</td>
<td>.88</td>
</tr>
</tbody>
</table>

First, Levene’s test was performed; the results showed that the assumption of homogeneity of variances was observed, \( F(2,72) = 1.88, p = .160 \). The one-way ANOVA showed that the independent variable proficiency level had a significant effect on the subjects’ performance on the EC task, \( F(2,72) = 40.6, p < .001 \). As seen in Table 3, the descriptive statistics showed an increase in the Mean scores from the low-level subjects to the high level. This suggests that the use of English indefinite articles in this task reaches higher levels of accuracy as the proficiency level increases.

By running Tukey’s multiple comparison test, it was found that there were significant differences among the three groups. Specifically, the beginner group was significantly different from the intermediate group, \( p = .043 \) even though it had fallen on the peripheral limit of significance. The difference between the advanced group on the one hand and the beginner and intermediate groups on the other hand was statistically significant, \( p < .001 \) for both. This means that the subjects in this group demonstrated a significantly more accurate use of the indefinite articles in the EC task than the other groups.
Overall, the subjects showed significant progress in the use of indefinite articles in all groups. However, a more significant development occurred with the advanced group (See Figure 2).

Figure 2: Mean plot for success in the EC task

4.2 Results for Noun Countability Judgments Tasks

This section of the research aimed to test the participants’ performance on noun countability judgments in isolation (JCI) and noun countability judgments in context (JCC). In the JCI task, the participants were asked to judge the countability of 44 nouns in isolation. They were provided with four options to choose from: count, mass, count and mass, and not sure. In the JCC task, 17 out of the 44-word list were given to the participants in short statements, and they were asked to decide whether each of them was mass or count based on the given context. The analysis of these tasks provides an answer to the second question in this study: To what extent does context aid learners of English to make better judgments on noun countability?

4.2.1 t-test for the JCC and JCI Tasks

The purpose of running the t-test was to examine how the participants performed in the JCC and JCI tasks. Prior to this test, the examination of the descriptive statistics revealed that in
both tasks the scores were normally distributed and within the appropriate limits for skewness. This allowed the test to be performed without concern for its validity.

The results of the dependent t-test showed that the Means of accuracy for the JCC and JCI were significantly different, $t(74) = 4.93, p<.001, d = .52$. Specifically, the subjects obtained higher success rates on judgments of countability in context (63.14%) than in isolation (50.55%), as in Table 10. The relatively high value of the effect size $d=.51$ further illustrates that the different task types influenced the performance of the participants.

Table 8: t-test Results for the JCC and JCI Tasks

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>% success</th>
<th>Lower</th>
<th>Upper</th>
<th>t(74)</th>
<th>Sig.</th>
<th>Effect size d</th>
</tr>
</thead>
<tbody>
<tr>
<td>JCC Mean Score</td>
<td>75</td>
<td>0.63</td>
<td>0.23</td>
<td>63.14%</td>
<td>.57</td>
<td>.68</td>
<td>4.93</td>
<td>.000</td>
<td>.52</td>
</tr>
<tr>
<td>JCI Mean Score</td>
<td>75</td>
<td>0.50</td>
<td>0.25</td>
<td>50.55%</td>
<td>.45</td>
<td>.56</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.2.2 One-Way ANOVA for the JCI Task

In the above analysis, the Mean scores of accuracy were compared and the subjects performed better in the JCC than in the JCI. However, this did not provide sufficient information about the development of the participants’ performance on each task because there were three levels of proficiency. Therefore, a one-way ANOVA was deemed necessary for each task.

The purpose of this test was to partially address the question of whether the level of proficiency had an effect on the subjects’ judgment on noun countability. Table 11 summarizes the descriptive statistics for the correct judgment of countability of English nouns in the JCI task across proficiency groups.
Table 9: Descriptive Statistics for Proficiency Level and Accurate Use of Indefinite Articles in JCI Task

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>% success</th>
<th>95% Confidence Interval for Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
</tr>
<tr>
<td>Beginner</td>
<td>25</td>
<td>0.24</td>
<td>0.17</td>
<td>25%</td>
<td>.17</td>
</tr>
<tr>
<td>Intermediate</td>
<td>25</td>
<td>0.50</td>
<td>0.13</td>
<td>51%</td>
<td>.45</td>
</tr>
<tr>
<td>Advanced</td>
<td>25</td>
<td>0.76</td>
<td>0.10</td>
<td>76%</td>
<td>.71</td>
</tr>
</tbody>
</table>

The assumption of homogeneity of variances was confirmed through performing Levene’s test, $F(2, 72) = 2.62, p = .079$. The results of the one-way ANOVA showed that the proficiency level influenced the subjects’ ability to judge the countability of nouns, $F (2, 72) = 78.87, p<.001$. As seen Table 7, the descriptive analysis showed an increase in the Mean scores of accuracy of countability judgments from the beginner to the advanced group. This suggests that the countability judgment of nouns given in context reaches higher levels of accuracy as the proficiency level increases.

Additionally, Tukey’s multiple comparison test was conducted to determine whether there were significant differences between the groups of proficiency. Significant results were observed between the three groups. Specifically, the performance of the subjects in the intermediate group is significantly higher than the beginner group, $p< .001$. In the same vein, the difference between the advanced and intermediate groups was also statistically significant, $p< .001$.

In sum, Tukey’s results showed that there was a developmental progress in countability judgments of nouns in the JCI task as the accuracy rates significantly increased from the low level to the advanced one (See Figure 3).
4.2.3 One-Way ANOVA for the JCC Task

In the same way, another one–way ANOVA was performed on the JCC task to examine learners’ performance on the JCC task for each proficiency group. Table 12 gives the descriptive statistics for the subjects’ performance on the JCC across proficiency levels.

Table 10: Descriptive Statistics for Proficiency Level and Accuracy Rate in the JCC Task

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>% success</th>
<th>95% Confidence Interval for Mean</th>
<th>Lower</th>
<th>Upper</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginner</td>
<td>25</td>
<td>0.49</td>
<td>0.25</td>
<td>49%</td>
<td>.38</td>
<td>.59</td>
<td>.00</td>
<td>.94</td>
<td></td>
</tr>
<tr>
<td>Intermediate</td>
<td>25</td>
<td>0.56</td>
<td>0.15</td>
<td>57%</td>
<td>.50</td>
<td>.63</td>
<td>.24</td>
<td>.82</td>
<td></td>
</tr>
<tr>
<td>Advanced</td>
<td>25</td>
<td>0.83</td>
<td>0.12</td>
<td>84%</td>
<td>.78</td>
<td>.88</td>
<td>.59</td>
<td>1.00</td>
<td></td>
</tr>
</tbody>
</table>

The results of the Welch test indicated that the assumption of unequal variances was met. The analysis of variances showed a main effect of proficiency level on the participants’ performance on the JCC, \( F(2, 45) = 32.16, p<.001 \). A multiple comparison analysis using Games-Howell indicated that the beginner group and the intermediate group were not
significantly different from each other, $p = .43$ as both had close Mean scores and success rates of 49% and 57%, respectively. However, a statistically significant difference between the intermediate and advanced groups was observed, $p<.001$ as the advanced group exhibited a higher Mean score and accuracy rate of 84%.

Overall, the Games-Howell test showed that there was a developmental trend in countability judgment of nouns in isolation, as significant improvement occurred at the advanced level. Figure 4 below further illustrates the progress in the participants’ performance on the JCC task.

![Figure 4: Mean plot for success in the JCC Task](image)

**4.3 Results for Concrete and Abstract Nouns**

This part of the analysis addresses the following question: *Do Arabic learners’ countability judgments correlate with the type of nouns?* To answer this question a series of dependent $t$-tests were performed, followed by a series of one-way ANOVA tests to examine the role of proficiency level. Descriptive statistics were performed for all the tests to ensure
normality of distributions. The results revealed that the scores were normally distributed within skewness limits.

4.3.1 Concrete vs Abstract

A paired-sample *t*-test was run to compare the mean scores for abstract and concrete nouns. The results showed that the difference in the Mean score for the concrete and abstract nouns in both mass and count senses (M= 0.5811, M= 0.5626, respectively) was not statistically significant, *t* (74) = 2, *p* < .054, *d* = .09. (See Table 13). The small value of the effect size further shows that the type of noun did not significantly influence the subjects’ countability judgments of nouns.

Table 11: A Paired-sample *t*-test for Overall Abstract and Concrete Nouns

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>% success</th>
<th>95% Confidence Interval for Mean</th>
<th><em>t</em>(74)</th>
<th>Sig.</th>
<th>Effect size <em>d</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Concrete Items</td>
<td>75</td>
<td>0.58</td>
<td>0.21</td>
<td>58%</td>
<td>Lower: .53, Upper: .63</td>
<td>2</td>
<td>.054</td>
<td>.09</td>
</tr>
<tr>
<td>Overall Abstract Items</td>
<td>75</td>
<td>0.56</td>
<td>0.21</td>
<td>56%</td>
<td>Lower: .51, Upper: .61</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.3.2 Count vs Mass in Concrete Nouns

Another paired-sample *t*-test was performed to compare the mean scores of concrete nouns in mass and count senses. The results showed that there was a statistical difference in the Mean scores between concrete mass (M= 0.58) and concrete count nouns (M= 0.71) with, *t* (74) = 5.8, *p* < .001. Specifically, the participants scored higher in concrete count nouns than in concrete mass nouns. The large value of the effect size (*d* = .60) further indicates that the mass
and count contexts of concrete nouns have an effect on the subjects’ ability to judge the countability of concrete nouns.

Table 12: A Paired-sample t-test for All Mass and Count Concrete Nouns

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>% success</th>
<th>95% Confidence Interval for Mean</th>
<th>t(74)</th>
<th>Sig.</th>
<th>Effect size d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete Count</td>
<td>75</td>
<td>0.71</td>
<td>0.20</td>
<td>71%</td>
<td>.66</td>
<td>5.8</td>
<td>.00</td>
<td>.60</td>
</tr>
<tr>
<td>Concrete Mass</td>
<td>75</td>
<td>0.58</td>
<td>0.22</td>
<td>58%</td>
<td>.53</td>
<td>.63</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.3.3 Count vs. Mass in Abstract Nouns

Abstract nouns were further analyzed based on the mass and count contexts through a paired-sample t-test. The results revealed that there was no significant difference in the mean scores of abstract count nouns (M= 0.61) and abstract mass nouns (M= 0.60), \( t(74) = .366, p = .715, d = .04 \). Unlike concrete nouns, the small value of effect size confirms that the difference in the context for abstract nouns had no effect on the participants’ judgment of abstract nouns (See Table 15).

Table 13: A Paired-Sample t-test for all Mass and Count Abstract Nouns

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>% success</th>
<th>95% Confidence Interval for Mean</th>
<th>t(74)</th>
<th>Sig.</th>
<th>Effect size d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract Count</td>
<td>75</td>
<td>0.61</td>
<td>0.20</td>
<td>62%</td>
<td>.57</td>
<td>.66</td>
<td>.366</td>
<td>.715</td>
</tr>
<tr>
<td>Abstract Mass</td>
<td>75</td>
<td>0.60</td>
<td>0.25</td>
<td>61%</td>
<td>.54</td>
<td>.66</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.3.4 Proficiency Level vs. Concrete Nouns

So far, several t-tests have been conducted to examine the role of the type of nouns (i.e., concrete vs. abstract) and the role of countability contexts (i.e., mass and count) on the
participants’ perception of English noun countability. The role of proficiency level on countability judgment of abstract and concrete nouns in both of their mass and count contexts was measured through running a One-way ANOVA. Table 16 gives the descriptive statistics for the subjects’ performance on items involving concrete nouns across proficiency level.

Table 14: *Descriptive Statistics for Proficiency Level and Accuracy Rates of Concrete Nouns*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>% success</th>
<th>95% Confidence Interval for Mean</th>
<th>Lower</th>
<th>Upper</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginner</td>
<td>25</td>
<td>0.37</td>
<td>0.15</td>
<td>37%</td>
<td>.30</td>
<td>.30</td>
<td>.43</td>
<td>.09</td>
<td>.66</td>
</tr>
<tr>
<td>Intermediate</td>
<td>25</td>
<td>0.56</td>
<td>0.09</td>
<td>56%</td>
<td>.52</td>
<td>.52</td>
<td>.59</td>
<td>.42</td>
<td>.79</td>
</tr>
<tr>
<td>Advanced</td>
<td>25</td>
<td>0.81</td>
<td>0.09</td>
<td>81%</td>
<td>.77</td>
<td>.77</td>
<td>.84</td>
<td>.66</td>
<td>.94</td>
</tr>
</tbody>
</table>

The analysis of the Welch variances test shows a main effect of proficiency level on the learners’ performance on concrete nouns, $F(2, 46.3)= 90.53, p<.001$. The Games-Howell multiple comparison test revealed that the differences between all groups are significant with $p<.001$, as evident in the difference in the Mean score of each group from low to high level of proficiency (M= 0.37, M = 0.56, M = 0.81, respectively). The interaction between the learners’ proficiency level and their performance on items involving concrete nouns is significant, as shown in Table 16. That is, the subjects’ accurate judgments of concrete nouns increase as their proficiency level improves.
4.3.5 Proficiency Level vs. Abstract Nouns

Abstract nouns were also examined through a one-way ANOVA against the three groups of proficiency levels in order to reveal whether there were significant differences within the groups. Table 15 provides an overview of the descriptive statistics for abstract nouns in both mass and count senses.

Table 15: Descriptive Statistics for All Abstract Items across Proficiency Level

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>% success</th>
<th>95% Confidence Interval for Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
</tr>
<tr>
<td>Beginner</td>
<td>25</td>
<td>0.35</td>
<td>0.13</td>
<td>36%</td>
<td>.29</td>
</tr>
<tr>
<td>Intermediate</td>
<td>25</td>
<td>0.55</td>
<td>0.12</td>
<td>55%</td>
<td>.49</td>
</tr>
<tr>
<td>Advanced</td>
<td>25</td>
<td>0.78</td>
<td>0.08</td>
<td>78%</td>
<td>.74</td>
</tr>
</tbody>
</table>

Significant differences in the performance of the participants among the groups occur, $F(2, 45) = 95, p<.001$. This analysis was followed by a Games-Howell multiple comparison test.
which indicated that there were significant differences between the groups, \( p<.001 \) in all cases.

This can be observed from the difference in the Mean scores and Success rates shown in Table11. The low-level group obtained the lowest rate of success (36%), while the advanced group obtained the highest success rate (78%), with the intermediate group in between (55%).

![Means plot for all abstract nouns](image)

**Figure 6**: Means plot for all abstract nouns

The one-way ANOVA was performed twice to investigate whether there is a relationship between the mean scores of concrete and abstract nouns and proficiency level. Overall, it seems that there is a significant interaction between the type of the noun and the level of proficiency of the learner in all cases.

4.3.6 **Proficiency Level vs. Context of Nouns**

4.3.6.1 **Concrete Count Nouns**

This section provides an analysis of the interaction between proficiency level and the context of the noun (mass and count) for both concrete and abstract items. Table (18) presents the descriptive statistics for concrete nouns in count context tested against proficiency level.
Table 16: Descriptive Statistics for All Concrete Count Nouns across Proficiency Level

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>% Success</th>
<th>95% Confidence Interval for Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
</tr>
<tr>
<td>Beginner</td>
<td>25</td>
<td>0.57</td>
<td>.23</td>
<td>57%</td>
<td>.47</td>
</tr>
<tr>
<td>Intermediate</td>
<td>25</td>
<td>0.69</td>
<td>.15</td>
<td>69%</td>
<td>.63</td>
</tr>
<tr>
<td>Advanced</td>
<td>25</td>
<td>0.87</td>
<td>.087</td>
<td>87%</td>
<td>.83</td>
</tr>
</tbody>
</table>

Proficiency level played a significant role in the performance of the participants on items involving concrete nouns in count contexts. This was observed from the results of the Welch test of variances with $F(2, 42) = 25.32, p<.001$. The results of the Games-Howell test indicated that the difference between the beginner and the intermediate groups was not statistically significant, $p=.075$ as they had close Mean scores and Success rates of 57% and 69%, respectively. However, a significant difference between the advanced group and the other two groups was observed (comparison with the intermediate group, $p<.001$; comparison with beginner group, $p<.001$). Overall, the results showed that there was a developmental trend in the subjects’ countability judgment of concrete nouns in count contexts (See Figure 7).
Concrete nouns in mass contexts were also examined through a one-way ANOVA. Table 19 gives the descriptive statistics for concrete nouns in mass contexts along with proficiency level. There was a main effect of the learners’ proficiency level and their ability to judge the countability of the concrete nouns in the mass contexts, $F(2, 72)= 3.33, p = .041$.

### Table 17: Descriptive Statistics for All Concrete Mass Nouns across Proficiency Level

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>% Success</th>
<th>95% Confidence Interval for Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginner</td>
<td>25</td>
<td>0.38</td>
<td>.16</td>
<td>38%</td>
<td>Lower .31 Upper .44 Minimum .10 Maximum .65</td>
</tr>
<tr>
<td>Intermediate</td>
<td>25</td>
<td>0.55</td>
<td>.12</td>
<td>56%</td>
<td>Lower .50 Upper .60 Minimum .30 Maximum .85</td>
</tr>
<tr>
<td>Advanced</td>
<td>25</td>
<td>0.81</td>
<td>.11</td>
<td>81%</td>
<td>Lower .76 Upper .85 Minimum .65 Maximum 1.00</td>
</tr>
</tbody>
</table>
The descriptive analysis shows that there is a difference in the Mean scores between all the three groups from the low to the high proficiency level (M=.3820, M= .5560, M= .8120, respectively).

By performing the Games-Howell multiple comparison test, it was found that there was a significant difference between the beginner and intermediate groups, \( p<.001 \) as both had varied Means scores. The difference between the advanced group and the other two groups was also statistically significant, \( p<.001 \). Figure 7 outlines the interaction between the learners’ performance on items involving concrete mass nouns and proficiency level.

![Graph](image)

*Figure 8: Means plot for success in all concrete mass nouns*

### 4.3.6.3 Comparison between Mass and Count Concrete Nouns

Taking together the results for the concrete nouns in the count contexts and the mass contexts yielded a significant difference between learners’ performance on the concrete items involving the mass and count contexts: the participants obtained higher accuracy rates for concrete nouns in the count senses than for concrete nouns in the mass senses. Overall, the
context of the noun (i.e., being mass or count) was indicated as an important factor for judging
the countability of English concrete nouns, and this result was consistent across all groups of
proficiency. This is illustrated in Figure 9, which shows that the higher the proficiency level, the
more accurate the countability judgment.

![Figure 9: Mean scores for the concrete nouns in the mass and count contexts](image)

4.3.6.4 Abstract Count Nouns

This part of the analysis addresses the participants’ performance on abstract nouns in
count and mass contexts. Table 20 below summarizes the descriptive statistics for abstract nouns
presented in count senses.
Table 18: Descriptive Statistics for Abstract Count Nouns across Proficiency Level

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>% Success</th>
<th>Lower</th>
<th>Upper</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginner</td>
<td>25</td>
<td>.50</td>
<td>.17</td>
<td>50%</td>
<td>.42</td>
<td>.57</td>
<td>.12</td>
<td>.76</td>
</tr>
<tr>
<td>Intermediate</td>
<td>25</td>
<td>.52</td>
<td>.13</td>
<td>53%</td>
<td>.47</td>
<td>.58</td>
<td>.29</td>
<td>.76</td>
</tr>
<tr>
<td>Advanced</td>
<td>25</td>
<td>.82</td>
<td>.09</td>
<td>82%</td>
<td>.78</td>
<td>.86</td>
<td>.65</td>
<td>1.00</td>
</tr>
</tbody>
</table>

The Welch test found that there is a relationship between learners’ proficiency and their performance on abstract count nouns, $F(2, 72) = 5.02, p = .005$. Based on the descriptive statistics showing an increase in the mean scores from the low-level group downward (Table 20), the ANOVA results can be interpreted to mean that overall, the ability to judge the countability of abstract nouns in count senses increases significantly with proficiency.

At this point, it was deemed necessary to perform a multiple comparison Games-Howell test in order to find out which proficiency groups were significantly different from each other, and in order to understand at what level the increase in accuracy of judgment begins and how it develops as proficiency progresses.

The beginner and intermediate groups were not significantly different from each other, ($p = .827$), as both had close Mean scores and Success rates of 50% and 53% (See Table 20). There was, however, a significant difference between the advanced and the other groups, $p < .001$, where the advanced group showed a significantly higher ability to recognize abstract nouns in count contexts (82% success) than the other groups, which show about a 50% success rate (See Figure 10).
Overall, all proficiency groups showed proficiency-related increase in their ability to judge the countability of abstract nouns in the count sense, and this increase was significant only for the advanced group.

*Figure 10:* Means plot for all abstract count nouns

### 4.3.6.5 Abstract Mass Nouns

Another one-way ANOVA was conducted to uncover how participants responded to abstract nouns in mass contexts and how their performance was distributed across levels of proficiency. Table 21 provides the descriptive statistics for abstract nouns involving mass contexts distributed along three groups of proficiency.
Table 19: *Descriptive Statistics for Abstract Mass Nouns across Proficiency Level*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>% Success</th>
<th>Lower</th>
<th>Upper</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginner</td>
<td>25</td>
<td>.37</td>
<td>.17</td>
<td>37%</td>
<td>.30</td>
<td>.44</td>
<td>.09</td>
<td>.73</td>
</tr>
<tr>
<td>Intermediate</td>
<td>25</td>
<td>.63</td>
<td>.23</td>
<td>63%</td>
<td>.54</td>
<td>.73</td>
<td>.27</td>
<td>1.09</td>
</tr>
<tr>
<td>Advanced</td>
<td>25</td>
<td>.81</td>
<td>.09</td>
<td>81%</td>
<td>.77</td>
<td>.84</td>
<td>.64</td>
<td>1.00</td>
</tr>
</tbody>
</table>

The results of the Welch test indicated that the assumption of unequal variances was observed, \( F (2, 42) = 60.59, p < .001 \), and the tests can be interpreted without concern for their validity. Similar to abstract count nouns, the descriptive statistics showed that there was an increase in the Mean scores and Accuracy rates from the low-level group (37%) to the high-level group (81%). This increase can be interpreted to mean that the participants showed strong ability in countability judgments with abstract nouns in mass contexts.

The Games-Howell test indicated that there were significant differences between all three groups. Specifically, the intermediate group was significantly different from the beginner group, \( p > .001 \), where the intermediate group showed more accurate judgments on abstract mass nouns (63% success rate) than the beginner group (37% success rate). The results further showed a significant difference between the advanced and intermediate groups, \( p < .001 \), where the high level group exhibited a Mean score and success rate of 81%, whereas the Mean score and Success rate for the intermediate group was 63%. This suggests that the participants’ performance on abstract mass nouns increases as proficiency level improves. This is visualized in Figure 11.
4.3.6.6 Comparison between Mass and Count Abstract Nouns

A comparison of the results for abstract count nouns and abstract mass nouns indicated that overall there was no significant difference in the participants’ performance on abstract nouns in mass and count contexts. This result is further supported by the overall close Mean scores of the two categories, as can be seen in Tables 20 and 21. However, significant differences were observed when the performance was distributed along proficiency groups. Figure 12 below shows that the beginner group score was higher for abstract count nouns than for abstract mass nouns. Interestingly, this situation was reversed with intermediate group, where the participants scored higher on items involving abstract mass nouns than abstract count nouns. The advanced group students had almost equal scores for abstract nouns for both contexts. Overall, there was a developmental trend in the participants’ performance on abstract nouns involving mass and count contexts. However, given the fluctuation of the accuracy rates for the beginner and intermediate groups, it seems that the Saudi learners of English have difficulty with both mass and count uses.
of abstract nouns, with count uses being more difficult, as the improvement in their performance is delayed until they reach advanced level.

**Figure 12**: Mean scores for abstract nouns in mass and count contexts

### 4.4 Translation Task

The purpose of this test was to detect possible L1 transfer effects in L2 production and specifically answer the fourth question: *Does Arabic (L1) knowledge play a role in the judgments of noun countability in English (L2)?* In this task, the participants were asked to translate ten Arabic sentences into English, which included five abstract and five concrete nouns. All nouns in this task were countable in Arabic and mass in English. Since this task involved two noun categories (i.e., concrete and abstract), a dependent t-test was conducted to compare the mean score of the participants for each category. A clear difference in the performance of the participants on concrete and abstract nouns was observed. The results of the dependent t-test showed that the Mean score and Accuracy rates for abstract and concrete nouns were significantly different, \( t(74) = -5.72, p<.001, d = .70 \). That is, the participants demonstrated
higher Mean scores on concrete nouns (M= .58) than abstract nouns (M= .37). The high value of the effect size $d= .70$ further indicates that noun category influenced the participants’ performance on this task. Simply put, the Arabic learners’ accuracy of countability judgments fluctuates according to the type of noun.

Table 20: *t*-test Results for Abstract and Concrete Nouns in Translation Task

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>95% Confidence Interval for Mean</th>
<th>t(74)</th>
<th>Sig.</th>
<th>Effect size $d$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract Nouns</td>
<td>75</td>
<td>.37</td>
<td>.29</td>
<td>Lower: .30</td>
<td>Upper: .44</td>
<td>-5.72</td>
<td>.000 .70</td>
</tr>
<tr>
<td>Concrete Nouns</td>
<td>75</td>
<td>.58</td>
<td>.31</td>
<td>Lower: .51</td>
<td>Upper: .65</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

According to the ANOVA results, the effect of proficiency level on the participants' performance on translation task was significant, $F(2, 72) = 18.5, p<.001$. It is to be noted that the target nouns given in this task are incongruent with English in terms of countability; all the nouns are count in Arabic and their counterparts in English are mass. If a participant added a plural marker or placed an indefinite article before the noun in translation, this means that his knowledge of countability status of nouns in Arabic influenced his choice in English, given that such nouns can be individuated and thus pluralized. The descriptive statistics in Table 23 shows an increase in the Mean scores and Accuracy rates from the low-level group (26%) to the advanced one (57%). This increase can be interpreted to mean that Arabic learners’ awareness of the difference in countability between the English and Arabic nouns in general increases as their proficiency improves, with concrete nouns being significantly higher.
Table 21: *Descriptive Statistics of Participants’ Responses to Translation Task across Proficiency Levels*

<table>
<thead>
<tr>
<th>Level</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>% Success</th>
<th>95% Confidence Interval for Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
</tr>
<tr>
<td>Beginner</td>
<td>25</td>
<td>.26</td>
<td>.23</td>
<td>26%</td>
<td>.17</td>
</tr>
<tr>
<td>Intermediate</td>
<td>25</td>
<td>.57</td>
<td>.17</td>
<td>57%</td>
<td>.49</td>
</tr>
<tr>
<td>Advanced</td>
<td>25</td>
<td>.59</td>
<td>.22</td>
<td>59%</td>
<td>.50</td>
</tr>
</tbody>
</table>

The *Post hoc Tukey* test indicated that there was a significant difference between the beginner and intermediate groups, *p* > .001. However, the difference between the intermediate group and the advanced one was not significant, *p* = .92. This means that the learners’ ability to translate English nouns accurately significantly develops from the beginner to the intermediate level, while the development does not reach significance between the intermediate and advanced groups, as can be seen in Figure 13 below.

![Figure 13: Mean plot for Translation Task](image)

In the above analysis, the one-way ANOVA aims to uncover the participants’ performance on the Translation Task in general. However, since this task was designed in a way
to compare the types of nouns, it was necessary, at this point, to conduct a one-way ANOVA twice in order to examine whether there are differences between learners’ performance on each noun category. Table 24 summarizes the descriptive statistics for the correct translation of the abstract and concrete nouns in the Translation Task across the levels of proficiency.

Table 22: Proficiency Level and Accurate Translation of Abstract and Concrete Nouns

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>95% Confidence Interval for Mean</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
<td>Upper</td>
<td></td>
</tr>
<tr>
<td>Abstract</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nouns</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beginner</td>
<td>25</td>
<td>.20</td>
<td>.21</td>
<td>.12</td>
<td>.2955</td>
<td>.00</td>
</tr>
<tr>
<td>Intermediate</td>
<td>25</td>
<td>.37</td>
<td>.25</td>
<td>.27</td>
<td>.48</td>
<td>.00</td>
</tr>
<tr>
<td>Advanced</td>
<td>25</td>
<td>.53</td>
<td>.32</td>
<td>.40</td>
<td>.66</td>
<td>.00</td>
</tr>
<tr>
<td>Concrete</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nouns</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beginner</td>
<td>25</td>
<td>.32</td>
<td>.29</td>
<td>.20</td>
<td>.44</td>
<td>.00</td>
</tr>
<tr>
<td>Intermediate</td>
<td>25</td>
<td>.76</td>
<td>.21</td>
<td>.67</td>
<td>.85</td>
<td>.20</td>
</tr>
<tr>
<td>Advanced</td>
<td>25</td>
<td>.65</td>
<td>.24</td>
<td>.55</td>
<td>.75</td>
<td>.00</td>
</tr>
</tbody>
</table>

The Mean difference is significant at the 0.05 level.

According to the ANOVA results, the effect of proficiency on the accuracy of translating abstract and concrete nouns was significant, $F(2,72) = 9.52$ for abstract nouns, $F(2,72) = 20.61$ for concrete nouns, and $p < .001$ for both. That is, the participants showed strong ability to translate the concrete nouns in this task than the abstract nouns. Furthermore, there was a gradual increase in the Mean scores of the concrete nouns from the beginner group ($M = .32$) to the intermediate group ($M = .76$). Interestingly, the Mean scores for the advanced group ($M = .65$) was slightly lower than the intermediate group score ($M = .76$). With respect to abstract noun category, the test revealed that there was a consistent and steady increase in the Mean scores from the low-level to the advanced level participants ($M_1 = .20$, $M_2 = .37$, and $M_3 = .53$, respectively). Overall, the Mean scores for each proficiency group in the abstract noun category is lower than its counterpart in the abstract noun category.
The multiple comparison Tukey test for the concrete nouns indicated that the difference between the beginner and intermediate groups was significant, $p<.001$, while the difference between the intermediate and advanced group was insignificant, $p = .264$. In abstract nouns, the difference between the beginner and intermediate groups did not reach significance ($p=.072$), yet the intermediate group maintained a higher Mean score than the beginner group. The difference between the advanced and intermediate groups was not statistically significant, $p=.091$. However, significant results were observed only between the beginner and advanced groups, $p<.001$. Figure 14 further illustrates the distribution of participants’ performance on abstract and concrete nouns on the Translation Task.

![Figure 14: Means plot for abstract and concrete nouns across proficiency levels](image)

4.5 Correlations across Tasks

Overall, Arabic learners’ data from the five tasks showed very similar patterns. This section discusses the relationship among the tasks as measured by Pearson’s tests.
4.5.1 Correlation between the FB and JCI Tasks

The correlation analysis shows a high positive correlation between the scores for the fill-in-the-blank task and the judgment of countability in isolation (JCI) \( r = 0.876 \), which is statistically significant, \( p<.001 \). The \( R\)-square of 0.767 shows that 76\% of the success in the participants’ performance on the FB performance could be accounted for by participants’ judgment of countability in isolation (See Table 25). The scores obtained from the FB task turn out to be positively correlated with those obtained from the JCI task. This can be interpreted to mean that the subjects who can identify the countability of nouns in isolation can also be successful in choosing the appropriate indefinite article in a given sentence.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Pearson r</th>
<th>R-square</th>
<th>Sig. (two-tail)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FB task</td>
<td>75</td>
<td>.61</td>
<td>.24</td>
<td>.876</td>
<td>.767</td>
<td>.000</td>
</tr>
<tr>
<td>JCI task</td>
<td>75</td>
<td>.50</td>
<td>.25</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.5.2 Correlation between the FB and JCC Tasks

The analysis of the correlation test revealed a positive correlation \( r = 0.561 \) between the FB and the JCC. Although the correlation was moderate in magnitude, it was significant, \( p<.001 \). The value of \( R\)-square indicated that 31\% of the participants’ successful performance on the FB could be accounted for by their ability to identify the countability of nouns in context (See Table 26). This could be interpreted to mean that the learners who can detect the countability of the nouns in context are likely to appropriately select the indefinite article.
Table 24: *Pearson r Correlation Results for the FB and JCC Tasks*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Pearson r</th>
<th>R-square</th>
<th>Sig. (two-tail)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FB task</td>
<td>75</td>
<td>.61</td>
<td>.24</td>
<td>.561</td>
<td>.314</td>
<td>.000</td>
</tr>
<tr>
<td>JCC task</td>
<td>75</td>
<td>.63</td>
<td>.23</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.5.3 Correlation between the FB Task and Overall JC.
In the above correlation tests, we were able to test the relationship between participants’ performance on the FB, JCC and JCI tasks separately. At this point, it would be reasonable to examine whether there was a correlation between the FB task and the overall of both countability judgment tasks (Overall JC). A high positive correlation between FB and Overall JC was observed $r = 0.86$, which was also statistically significant, $p < .001$. The scores obtained from the FB task was positively correlated with those obtained from both the overall JC. As can be seen in Table 23, the coefficient of determination $R$-square is $= 0.74$, which means that 74% of participants’ success on the FB task can be attributed to their knowledge of the countability either in isolation or in context. This fact provides evidence for the importance of identifying the countability of the nouns in selecting the appropriate article.

Table 25: *Pearson r Correlation Results for the FB and Overall JC Tasks*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Pearson r</th>
<th>R-square</th>
<th>Sig. (two-tail)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FB task</td>
<td>75</td>
<td>.61</td>
<td>.24</td>
<td>.86</td>
<td>.74</td>
<td>.000</td>
</tr>
<tr>
<td>Overall JC</td>
<td>75</td>
<td>.54</td>
<td>.22</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Overall, the correlation between the FB task and the three-way noun countability judgments is positive. Accordingly, it may be possible to claim that the learners who are able to
provide correct indefinite articles in the FB can also successfully make judgments of countability of nouns in isolation as well as in context, and the other way around.

4.5.4 Correlation between the FB and EC Tasks.

The purpose of designing the FB and EC tasks was to examine learners’ ability to supply the correct article or to detect article-related errors. This part of the analysis aims to test the correlation between these tasks. As shown in Table 28, the Pearson value $r = 0.72$ indicates that there is a high positive correlation between the participants’ performance on the tasks, which is also significant, $p<.001$. The coefficient of determination value of 0.51 reveals that 51% of the variability observed in the FB task might be accounted for by the participants’ performance on the EC task. That is, the scores obtained from the FB positively correlate with the EC scores. This suggests that the participants who are able to insert the indefinite articles in the FB task can also detect article-related errors and supply correction in the EC task.

Table 26: Pearson r Correlation Results for the FB and EC Tasks

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Pearson r</th>
<th>R-square</th>
<th>Sig. (two-tail)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FB Task</td>
<td>75</td>
<td>.61</td>
<td>.24</td>
<td>.72</td>
<td>.51</td>
<td>.000</td>
</tr>
<tr>
<td>EC Task</td>
<td>75</td>
<td>.62</td>
<td>.15</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.5.5 Correlation between the EC and JC Tasks

In the above analysis, the correlation between the FB task and the other three tasks was discussed. Correlation tests were conducted to discover any correlations between the EC task and the countability judgments in various types of tasks (See Table 29). Overall, the correction tests indicated positive correlations between the tasks in question, and the correlations were also significant in all cases, $p<.001$. 

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Table 27: Pearson r Correlation Results for the EC and Three-way JC Tasks

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Pearson r</th>
<th>R-square</th>
<th>Sig. (two-tail)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC Task</td>
<td>75</td>
<td>.62</td>
<td>.15</td>
<td>.76</td>
<td>.58</td>
<td>.000</td>
</tr>
<tr>
<td>JCI task</td>
<td>75</td>
<td>.50</td>
<td>.25</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EC Task</td>
<td>75</td>
<td>.62</td>
<td>.15</td>
<td>.48</td>
<td>.23</td>
<td>.000</td>
</tr>
<tr>
<td>JCC Task</td>
<td>75</td>
<td>.63</td>
<td>.23</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EC Task</td>
<td>75</td>
<td>.62</td>
<td>.15</td>
<td>.75</td>
<td>.56</td>
<td>.000</td>
</tr>
<tr>
<td>Overall JC</td>
<td>75</td>
<td>.54</td>
<td>.22</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Specifically, the results showed a high degree of positive correlation between the EC and JCI tasks $r = .76$, $p<.001$. This result was further explained by the relatively large value of $R$-square, .586, which indicates that 58% of the participants’ success in the EC task may be due to their success in the JCI task. The scores obtained from the EC task by the learners positively correlate with the JCI scores. This suggests that participants who are able to detect errors in the EC task and correct them are also able to make successful countability judgments of nouns in isolation. Similarly, the analysis detected positive correlations between the EC task and the JCC and Overall JC, $r = .48$, and $r = .75$, respectively, which were significant in both cases, $p<.001$. The correlations between the tasks of EC, JCI and overall JC were the strongest, while with the JCC task, they were relatively weaker yet still significant.
4.5.6 Correlations between JC Tasks

The correlation between the countability judgment of nouns in isolation and in context was also tested. The Pearson’s test was conducted to test whether there was any significant relationship between the two.

Table 28: Pearson r Correlation Results for JCI and JCC

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Pearson r</th>
<th>R-square</th>
<th>Sig. (two-tail)</th>
</tr>
</thead>
<tbody>
<tr>
<td>JCI Task</td>
<td>75</td>
<td>.50</td>
<td>.25</td>
<td>.59</td>
<td>.35</td>
<td>.000</td>
</tr>
<tr>
<td>JCC Task</td>
<td>75</td>
<td>.63</td>
<td>.23</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A positive correlation between participants’ performance on the JCI and JCC tasks was observed $r = .59$, $p < .001$. Although the degree of correlation was moderate in magnitude, the result was significant. This finding was further supported by the value of the coefficient of determination ($r^2 = .35$), which indicates that about 35% of the learners’ success in the JCI could be accounted for by their success in the JCC task. That is, the learners who are successful in making countability judgments of nouns in isolation are also able make correct countability judgments of nouns in context.

4.6 Self-Report on Noun Class and Countability

The aim of this task was to examine second language learners’ metalinguistic knowledge of English noun countability. The participants were asked to respond to five statements concerning their linguistic knowledge of noun countability in terms of five types of nouns (i.e., abstract, concrete, material, collective, and proper nouns). For the purpose of this study, only the first two types were analyzed. The five statements were measured on a Likert scale of 1 to 5,
where 1= Always and 2= Never. In reporting the results, the first three choices (i.e., from 1-3) are considered positive, whereas the last two (i.e., 4 and 5) are negative.

In response to statement 1 concerning concrete nouns, Concrete nouns (e.g., book, car, etc.) are countable, the results yielded that the responses of the majority of the subjects were positive, 98.7% (n= 72), whereas only 1.3% (n=1) of the participants responded negatively and one participant’s response was missing (See Table 31).

Table 29: Frequencies and Percentages for Subjects’ Responses to Concrete Nouns

<table>
<thead>
<tr>
<th>Valid</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>always</td>
<td>47</td>
<td>62.7</td>
<td>62.7</td>
<td>64.0</td>
</tr>
<tr>
<td>often</td>
<td>15</td>
<td>20.0</td>
<td>20.0</td>
<td>84.0</td>
</tr>
<tr>
<td>usually</td>
<td>10</td>
<td>13.3</td>
<td>13.3</td>
<td>97.3</td>
</tr>
<tr>
<td>never</td>
<td>2</td>
<td>2.7</td>
<td>2.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Regarding the participants’ responses to statement 2 concerning abstract nouns, Abstract nouns (e.g., freedom, anger, joy, etc.) are countable, 25.4% (n=19) of the subjects responded positively, while 73.3% (n=65) of them responded negatively, and one response was missing.

Table 30: Frequencies and Percentages for Subjects’ Responses to Abstract Nouns

<table>
<thead>
<tr>
<th>Valid</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>always</td>
<td>3</td>
<td>4.0</td>
<td>4.1</td>
<td>4.1</td>
</tr>
<tr>
<td>often</td>
<td>5</td>
<td>6.7</td>
<td>6.8</td>
<td>10.8</td>
</tr>
<tr>
<td>usually</td>
<td>11</td>
<td>14.7</td>
<td>14.9</td>
<td>25.7</td>
</tr>
<tr>
<td>seldom</td>
<td>18</td>
<td>24.0</td>
<td>24.3</td>
<td>50.0</td>
</tr>
<tr>
<td>never</td>
<td>37</td>
<td>49.3</td>
<td>50.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>74</td>
<td>98.7</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
4.7 Participants’ linguistic Knowledge, Awareness of Countability and Related Topics

The study used a survey methodology with 11 items in Task 2, each measured on a *Likert scale* of 1 to 5, where 1= strongly agree and 2= strongly disagree. There were six separate subsections in this survey: section 1 (including statements 2 and 7) aimed to examine participants’ perception of how countability is assigned to words. Section 2 (statements 3 and 8) focused on subjects’ attitudes on noun countability in concrete and abstract nouns. Section 3 (statements 1, 6 and 9) surveyed participants learning background of countability and learning strategy. Section 4 (statement 10) concerned learner’s awareness about the relationship between English noun countability and articles. Section 5 (statement 11) dealt with participants’ opinions on the importance of the concept of noun countability. Finally, section 6 (statement 4) surveyed participants’ evaluation of their knowledge of noun countability.

The data was analyzed through SPSS software. Frequency statistics were calculated for all 11 statements in the survey. Below are the results for each construct.

4.7.1 Perception of Countability

The first construct was designed to examine the participants’ knowledge of how countability is assigned to nouns. Table 33 summarizes the frequency results for statements 2 and 7.
Table 31: Frequency of Responses for Perception of Countability

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Not sure</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Missing</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. The countability of English nouns is determined by the given context.</td>
<td>20 (26.6%)</td>
<td>28 (37.3%)</td>
<td>20 (26.7%)</td>
<td>5 (6.7%)</td>
<td>1 (1.3%)</td>
<td>1 (1.3)</td>
<td>2.15</td>
</tr>
<tr>
<td>7. In English, countability of the noun is fixed to the noun itself.</td>
<td>9 (12%)</td>
<td>11 (14.6%)</td>
<td>21 (28%)</td>
<td>16 (21.3%)</td>
<td>17 (22.8%)</td>
<td>1 (1.3)</td>
<td>2.84</td>
</tr>
</tbody>
</table>

As seen in Table 33, in response to Statement 2, *The countability of English nouns is determined by the given context*, 63.3% of the participants showed agreement with the statement and 8% disagreed. It should be noted that a rather high percentage of the participants showed some hesitation by selecting the response *not sure*. The second statement, *In English, countability of the noun is fixed to the noun itself*, yielded a lower level of agreement (26.6%) in comparison to the first statement. The other 73.4% of the participants showed some hesitation (28%) and disagreement (45.4%). Putting together the results of the two statements, context was indicated as an important factor of judging the status of the noun, and that countability is unlikely to be a fixed characteristic of the noun.

4.7.2 Attitudes Toward countability of Abstract and Concrete Nouns

The second section of the survey questioned whether noun countability judgments differ in accordance with the class of the noun (i.e. Concrete vs. Abstract). Two statements were designed to investigate this issue.
Table 32: Frequency of Responses for Participants' Attitudes Towards abstract and Concrete Noun

<table>
<thead>
<tr>
<th>Response</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Not sure</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Missing</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. I think it is easy to determine the countability of abstract nouns.</td>
<td>16 (21.3%)</td>
<td>12    (16%)</td>
<td>16       (21.3%)</td>
<td>18        (24%)</td>
<td>12     (16%)</td>
<td>1   (1.3)</td>
<td>2.93</td>
</tr>
<tr>
<td>8. I think it is easy to determine the countability of concrete nouns.</td>
<td>35 (46.7%)</td>
<td>23    (30.7%)</td>
<td>10       (13.3%)</td>
<td>3         (4%)</td>
<td>3      (4%)</td>
<td>1   (1.3)</td>
<td>1.84</td>
</tr>
</tbody>
</table>

In response to Statement 3, *I think it is easy to determine the countability of abstract nouns*, the results revealed that 37.3% of the participants agreed and 40% disagreed. It is to be noted that 21.3% of the participants were hesitant, as they selected the response *not sure*.

The next statement, *I think it is easy to determine the countability of concrete nouns*, elicited a very high level of agreement. Specifically, 77.4% of the participants agreed with the statement. A rather low percentage (8%) of the participants showed strong disagreement, and 13.3% expressed some degree of uncertainty. These results suggest that determining the countability of abstract nouns is more difficult than determining the status of concrete nouns. The slight difference between agreement and disagreement rates and the high level of hesitation on the first statement are indicatives of the difficulty level of the abstract nouns.

### 4.7.3 Learning Background of Countability and Learning Strategy

The survey consisted of three items which examined the learning background of the concept of noun countability and the strategies utilized to master countability. Statements 1 and 6 were concerned with how the participants learned about countability, whereas statement 9
questioned whether memorization was a proper strategy of learning countability. Table 35 summarizes the frequency results for the three statements.

Table 33: Frequency of Responses for Participants' Learning Background and Strategies

<table>
<thead>
<tr>
<th></th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Not sure</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Missing</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I think I have been taught about countability of nouns in English Classes.</td>
<td>26 (34.7%)</td>
<td>20 (26.7%)</td>
<td>23 (30.7%)</td>
<td>4 (5.3%)</td>
<td>1 (1.3%)</td>
<td>1 (1.3%)</td>
<td>2.08</td>
</tr>
<tr>
<td>6. I learned about the countability of English nouns from English reference books.</td>
<td>10 (13.3%)</td>
<td>13 (17.3%)</td>
<td>21 (28%)</td>
<td>22 (29.3%)</td>
<td>7 (9.3%)</td>
<td>2 (2.7%)</td>
<td>2.96</td>
</tr>
<tr>
<td>9. The countability of English nouns should be memorized.</td>
<td>11 (14.7%)</td>
<td>17 (22.7%)</td>
<td>24 (32%)</td>
<td>11 (14.7%)</td>
<td>11 (14.7%)</td>
<td>1 (1.3%)</td>
<td>2.88</td>
</tr>
<tr>
<td>4. I think I know well about the countability of English nouns.</td>
<td>12 (16%)</td>
<td>23 (30.7%)</td>
<td>22 (29.3%)</td>
<td>14 (18.7%)</td>
<td>3 (4%)</td>
<td>1 (1.3%)</td>
<td>2.60</td>
</tr>
</tbody>
</table>

The results show that 61.4% of the participants expressed agreement with the first statement, *I think I have been taught about countability of nouns in English Classes*, and only 6.6% disagreed. The response not sure was selected by 30.7% of the participants. The second statement, *I learned about the countability of English nouns from English reference books*, yielded a lower level of agreement (30.6%) in comparison to the first statement. The other portion of the participants disagreed (38.6%), with (28%), were neutral. The strong agreement with the first statement and disagreement on the second one indicates that classroom learning is
more effective than leaning from English reference books with respect to the countability of English nouns.

In addition, Table 35 includes a statement concerning the learning strategy, *The countability of English nouns should be memorized*. There is no considerable difference in the percentage of the participants who agreed and those who disagreed. Specifically, 29.4% of the participants think that countability should not be memorized while 37.4% prefer memorization. It should be noted that a rather high percentage (32%) were neutral, as they selected the middle-ground response *not sure*.

In addition, the participants were asked to evaluate their knowledge about the concept of countability and were specifically asked about how much they think that they know about noun countability. In response to statement 4, *I think I know well about the countability of English nouns*, 46.7% responded positively to the statement, and only 22.7% of the responses were negative. Those who were not sure accounted for 29.3% of the total. In other words, less than 50% of the participants thought they know a lot about countability, a substantial number of participants (29%) could not evaluate their knowledge, and only about 22% admitted lack of nouns countability knowledge in English.

### 4.7.4 Awareness of the Relationship between Countability and Indefinite Articles

This study also considered how aware the learners of English were of the relationship between noun countability and the use of the indefinite article and zero article in English. For this purpose, the survey included statement 10, *The countability of nouns is closely related to the selection of articles*. 

99
Table 34: *Frequency of Responses for Learner's awareness of the Relationship between Countability and Indefinite Articles*

<table>
<thead>
<tr>
<th></th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Not sure</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Missing</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. The countability of nouns is closely related to the selection of articles.</td>
<td>13 (17.3%)</td>
<td>32 (42.7%)</td>
<td>22 (29.3%)</td>
<td>3 (4%)</td>
<td>4 (5.3%)</td>
<td>1 (1.3%)</td>
<td>2.33</td>
</tr>
</tbody>
</table>

In response to this statement, 60% of the participants showed agreement whereas 9.3% disagreed and 29.3% were neutral by selecting *not sure* as a response. This means that the majority of the subjects were aware of the fact that countability is an important factor to the proper use of indefinite articles in English.

### 4.7.5 Importance of Countability

The participants were also asked how important the concept of countability of nouns in English is. Their answers in response to statement 11, *I think countability of nouns is one of the most important grammatical concepts in English* were given in Table 34.

Table 35: *Frequency of Responses for the importance of countability in English grammar*

<table>
<thead>
<tr>
<th></th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Not sure</th>
<th>Disagree</th>
<th>Missing</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. I think countability of nouns is one of the most important grammatical concepts in English.</td>
<td>26 (34.7%)</td>
<td>22 (29.3%)</td>
<td>24 (32%)</td>
<td>2 (2.7%)</td>
<td>1 (1.3%)</td>
<td>2 (64%)</td>
</tr>
</tbody>
</table>

The majority of the participants (64%) agreed with this statement, and only 2% disagreed. A substantial number of participants (32%) were neither agreeing nor disagreeing with the statement.
5.0 Introduction

This chapter presents a discussion of the results outlined in chapter four in light of the research questions set forth in this study. Section 5.1 discusses the role of context in the judgments of noun countability by Arabic learners of English. Section 5.2 provides evidence for the role of L1 knowledge in the judgments of countability in English as a second language. Section 5.3 answers the third research question in this study, which concerns the relationship between countability judgments and noun class with presentation of the role of proficiency in the judgments of abstract and concrete nouns. The relationship between the use of the English indefinite articles and countability judgments is discussed in section 5.4. The chapter concludes with a discussion of the metalinguistic knowledge of the participants regarding the concept of countability in English.

5.1 Countability Judgments and Context

The current study investigated whether context and proficiency level play a role in learners’ countability judgment of English nouns by Arabic learners of English. This section answers the following question: To what extent does context aid learners of English to make better judgments on noun countability? The results of the t-test indicated that the learners performed significantly better in judging the countability of nouns given in context than in context-free situations. The Mean score and Success rate for countability judgments of nouns in context was 63.14%, while the Mean score and Success rate for countability judgments of nouns in isolation was 50.55%. This suggests that a higher percentage of the participants were aware of the fact that countability is not a fixed property of the noun, but rather context-dependent.
This finding is consistent with Cho (2005) who emphasized the role of context in judging the countability of nouns. She found out that Korean participants performed better in countability judgments of nouns in context than in isolation. The result of the current study and that of Cho’s differ from Yoon’s (1993) whose results indicated that Japanese subjects seemed to treat countability as a fixed property of nouns. This difference could be attributed to the fact that Yoon drew her results from a task designed differently from the tasks in the current study. She based her results of the subjects’ judgments of countability of nouns in isolation on the use or nonuse of indefinite articles. However, the present study utilized two different tasks: countability judgment of nouns in context (JCC) and countability judgment of nouns in isolation (JCI), and by comparing the results of both tasks, I keep better and more relevant results and a clear vision of how noun countability is perceived by Arabic learners of English.

The majority of the participants in the current study were able to recognize the countability of nouns based on the given contexts. That is, they were able to shift their decisions regarding countability status of nouns according to the task. Examples of the participants’ responses are given below.

In the task of countability judgments of nouns in isolation (JCI), the subjects were instructed to decide the countability status of the nouns in the list and had to choose one of four options: Count, Mass, Both, and not sure. Taking the word victory as an example, they were expected to select the third option both because this word can be used as count and mass. As seen in Table 38, only 24% of the participants answered correctly that victory could be both mass and count, whereas the majority (76%) answered wrong by choosing one of the other options.
The same word appeared in Task 4 (JCC) in which the subjects were asked to identify its countability status in the given context (i.e. The result was a victory for forty-six your old Bill Clinton.). Victory is considered count in this context, and 73.3% of the participants were able to answer correctly, whereas the rest (26.7%) of the participants provided wrong answers, as shown in Table 39.

Table 36: Subjects’ Responses to The Word ‘victory’ in JCI task

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>Count</td>
<td>17</td>
<td>22.7</td>
<td>22.7</td>
</tr>
<tr>
<td></td>
<td>Mass</td>
<td>33</td>
<td>44.0</td>
<td>44.0</td>
</tr>
<tr>
<td></td>
<td>Both</td>
<td>18</td>
<td>24.0</td>
<td>24.0</td>
</tr>
<tr>
<td></td>
<td>Not sure</td>
<td>7</td>
<td>9.3</td>
<td>9.3</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Notice that 44% of the participants identified victory as a mass noun in the JCI Task. In contrast, only 26.7% of the subjects treated the same word as a mass noun in the JCC task, and the majority (73.3%) treated it as a count noun (See Figure 15). This finding shows that most of the subjects were able switch their initial responses according to the context in which the word is used. This indicates that overall, the perception of noun is not fixed to the noun itself; rather it depends on the context in which the noun appears.

Table 37: Subjects' Response to The Word 'victory' in The JCC Task

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>Count</td>
<td>55</td>
<td>73.3</td>
<td>73.3</td>
</tr>
<tr>
<td></td>
<td>Mass</td>
<td>20</td>
<td>26.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
A more interesting observation is that the difference in percentage between those who identified *victory* as a mass noun on the JCI (44%) and JCC (26.7%) tasks was considerably smaller than the difference between the responses of those who treated it as count on the JCC (73.3%) and JCI (22.7%) tasks (i.e. 17.3% and 50.6%, respectively). This suggests that *victory* is more likely to be treated as a mass noun than a count noun.

The above example is a case of an abstract noun. The following example is a case of a typical concrete noun, *boy*. This noun can be both mass and count depending on the context. It was given in the following context in Task 4 (JCC):

- *Give your child, boy or girl, a doll to play with.*

In this sentence, *boy* does not refer to an entity, which has a discreet shape and can be individuated. Instead, it refers to the notion of gender (i.e., male as opposed to female) rather than to a specific human being, and thus can be considered a mass noun use. Individuation is the semantic feature that differentiates count from mass nouns (Yule, 1998), but the word *boy* is not count in this context.
Notice that a high percentage of the participants (76%) identified *boy* as a count noun in the JCI task, and only 14.7% labelled it as both mass and count (See Table 40). The rest of the participants answered either mass (6.7%) or not sure (2.7%).

**Table 38: Subjects’ Response to the Word 'boy' in the JCI Task**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>57</td>
<td>76.0</td>
<td>76.0</td>
<td>76.0</td>
</tr>
<tr>
<td>Mass</td>
<td>5</td>
<td>6.7</td>
<td>6.7</td>
<td>82.7</td>
</tr>
<tr>
<td>Both</td>
<td>11</td>
<td>14.7</td>
<td>14.7</td>
<td>97.3</td>
</tr>
<tr>
<td>Not sure</td>
<td>2</td>
<td>2.7</td>
<td>2.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

On the other hand, Table 41 shows that 61.3% of the subjects identified *boy* as a mass noun in the given context. The remaining percentage answered wrong and considered it a count noun.

**Table 39: Subjects’ Responses to the Word 'boy' in JCC Task**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>29</td>
<td>38.7</td>
<td>38.7</td>
<td>40.0</td>
</tr>
<tr>
<td>Mass</td>
<td>46</td>
<td>61.3</td>
<td>61.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Figure 16 below shows that the participants were able to shift their initial responses successfully according to the situation in which the noun was given. This further supports the claim that the participants’ perception of noun countability was not static, but rather could change according to the context.
One can observe that the gap between learners’ responses to *boy* as a mass noun in both the JCC task (61.3%) and the JCI task (6.7%) is very big. On the other hand, the gap between the subjects’ responses to the same word as a count noun in the JCC task (38.7%) and the JCI (76%) is smaller. This is indicative of the likelihood that *boy* is treated frequently as a count noun than a mass noun.

This significant difference between the subjects’ responses on same nouns in the two different tasks of countability judgments emphasizes the role of context in the perception of noun countability status and casts doubt on the investigation of countability of nouns without context. Yoon (1993) claimed that Japanese learners of English were able to successfully use their intuitive judgments on the countability of nouns that were given in a context-free situation.

**5.1.1 Evidence from Concrete Nouns**

The outcomes of the present study provide support for the cognitive version of markedness theory, *prototypicality*, in that it reflects some prototypical examples of nouns in the...
subjects’ responses. Ungerer & Schmid (1996) point out that prototypical concrete nouns refer to *individuated things*. Accordingly, many learners of English probably identify words that can be categorized as referring to *individual things* as count nouns. The responses of the subjects in this study provide examples of this type. Figure 17 shows the participants’ treatment of concrete nouns in countability judgments of nouns in isolation.

Figure 17: Subjects' Responses to Concrete Nouns in the JCI Task

The majority of the subjects responding to the nouns in the JCI task identified concrete nouns, such as *stone* (56%), *chicken* (57.3%), *egg* (65.3%), *boy* (76%) and *apple* (74.7%) as count nouns. This result can be explained on the grounds of the above-mentioned prototype instances of nouns. I suggest that mass use of these words in the participants’ mother language (L1) is more marked (non-prototypical), and the transferability of such uses is unlikely to occur at least in the early stages of language learning. Perhaps the participants perceive these words in a way that matches L1 prototypical instances of the nouns. The meanings of these words can vary in their degree of prototypicality. This could be attributed to the degree to which the participants interact with and experience the objects to which these words refer. That is, the
learners may have been exposed more frequently to the count (typical) use of these words in English, such as *apple*, *boy* and *egg* than *stone* and *chicken*.

The results of the present study provide another instance of concrete nouns that can be used as evidence that noun countability judgments depend on prototypicality. For example, a high percentage of the subjects (72%) who responded to the JCI task identified *beer* as a mass noun, despite the lack of experience with *beer* in Saudi culture. In addition, *wine* and *water* were both considered mass nouns by 61.3% and 62.7% of the subjects (See Figure 18). Perhaps these words were perceived more frequently as mass rather than count by the subjects by because they typically denote a “substance”.

![CONCRETE NOUNS](image)

*Figure 18: Subjects' Responses to Concrete Nouns in the JCI Task*

### 5.1.2 Evidence from Abstract Nouns

In addition to the instances of concrete nouns discussed above, abstract nouns also provide evidence for the applicability of prototypical instances of words in justifying the subjects’ responses. The case of *reality* in the JCI task, for instance, supports the idea that
learners may ground their countability judgments on the prototypical uses of the words they already know. In fact, the word *reality* is a less prototypical noun denoting “substance”. Yet, about 68% of the participants considered it as a mass noun (See Figure 19).

![ABSTRACT NOUNS](image)

*Figure 19: Subjects' Response to Abstract Nouns in JCI Task*

The same analysis applies to the subjects’ responses to other abstract nouns in the JCI task. Most of the participants counted *freedom* (60%), *kindness* (58%), *fun* (66.7%), and *joy* (60%) as instances of mass nouns despite the fact that such words are of dual countability membership. It seems that the participants’ judgments of countability of nouns are influenced by prototypical instances of words stored in their minds in addition to their exposure to these words in the context of mass nouns.

5.2 Evidence for Language Transfer

The reliance of the prototypical use of words in L2 may not be always sufficient to account for all nouns in the tests. The data shows that there are some abstract nouns that are typically treated as mass in English (e.g., *evidence*, and *advice*), yet a high percentage of the participants identified them as count. As shown below, 60% (n=45) of the subjects treated
evidence as count and 49.3% (n=37) considered advice as count, even though such nouns are typically mass nouns in English.

Taylor (1993) states “that most languages construe information, advice, evidence, and news as “things” while English categorizes them somewhat idiosyncratically as non-individuated “substances” analogous to knowledge, wisdom and learning.” (p.215). Arabic is one of the languages that categorizes such nouns as individuated things leading to errors, such as *evidences, *advices, *informations. This result may be indicative of the learners’ reliance on their L1 knowledge of the same nouns. These nouns are typically used as count nouns in Arabic. The countability of individual words and countability (in)congruency between the first and the target language may play an essential role in countability judgments in the second language. In other words, this study concludes that countability mismatches between Arabic and English result in lower success rates in learners’ countability judgments in such nouns.

Figure 20: Subjects’ responses to evidence and advice in JCI Task
The current study investigated whether L1 transfer at the lexical level plays a role in L2 countability judgments and article choice by Saudi learners of English. The mass-count distinction is language specific and that English and Arabic share some similarities and differences regarding countability of nouns. In both languages, the plural marker is a morpho-syntactic marker signaling the countability of nouns. However, only in English, as opposed to Arabic, are the indefinite article *a/an* and zero article also used to mark the mass-count distinction, since Arabic lacks an indefinite article.

The study tapped into the influence of L1 on the countability of nouns in English by using the Translation Task. All the ten items in this task were incongruent with English in terms of countability. That is, the target words were typically count in Arabic and mass in English. Based on the responses of the participants, count nouns, that can take the plural marker in Arabic, are not necessarily be treated as count in English. It was expected that the Saudi subjects would perform poorly on countability judgments of incongruent nouns in English. The results indicate that the Mean score of the Translation Task was the lowest Mean score in comparison with the other four tasks. In other words, the participants had more difficulty with the Translation Task than all other tasks, and their accuracy rate of countability judgments was the lowest.

The results of the Translation Task provide examples in support of the likelihood of the existence of the role of L1 in countability judgments of nouns in L2. Table 42 presents the numbers and percentages of the participants’ responses to some of the items in the Translation Task. A close examination of the results for individual nouns revealed that there was a high degree of variability in the group. The accuracy rates for some nouns were significantly lower than the rest of the nouns in the same task (See Table 41).
Table 40: Responses to Problematic Nouns in the Translation Task

<table>
<thead>
<tr>
<th>Nouns</th>
<th>Accuracy</th>
<th>Countability in English</th>
<th>Countability in Arabic</th>
</tr>
</thead>
<tbody>
<tr>
<td>bread</td>
<td>17 (22.3%)</td>
<td>Mass</td>
<td>Count</td>
</tr>
<tr>
<td>cake</td>
<td>19 (25.3%)</td>
<td>Mass</td>
<td>Count</td>
</tr>
<tr>
<td>evidence</td>
<td>21 (28%)</td>
<td>Mass</td>
<td>Count</td>
</tr>
<tr>
<td>chalk</td>
<td>32 (42%)</td>
<td>Mass</td>
<td>Count</td>
</tr>
</tbody>
</table>

_Bread_ is one of the most problematic nouns in this task as it stood out with the lowest score (22.3%). _Cake_ was the second difficult noun with an accuracy rate of 28%. The accuracy rate of _evidence_ and _chalk_ were relatively higher, yet still low if compared to other nouns in test as can be seen in Table 43. One possible reason for this may be that the Arabic counterparts for these nouns can be individuated and thus pluralized. Therefore, the Arabic speaking subjects have treated such nouns as count based on their knowledge of Arabic.

However, even though the overall Mean score for the Translation Task was low, the subjects’ performance on some nouns in the same task was relatively better in that their accuracy rates were much higher than the group, as in Table 42. The accuracy rates for the nouns in Table 40 were high even though they are still incongruent in terms of countability with Arabic. Thus, language transfer is not a sufficient explanation for such increase in the success rates.
Table 41: The Participants' Responses to More Frequently Used Nouns in the Translation Task

<table>
<thead>
<tr>
<th>Nouns</th>
<th>Accuracy</th>
<th>Countability in English</th>
<th>Countability in Arabic</th>
</tr>
</thead>
<tbody>
<tr>
<td>research</td>
<td>46 (61.3%)</td>
<td>Mass</td>
<td>Count</td>
</tr>
<tr>
<td>homework</td>
<td>52 (69.3%)</td>
<td>Mass</td>
<td>Count</td>
</tr>
<tr>
<td>vocabulary</td>
<td>36 (48%)</td>
<td>Mass</td>
<td>Count</td>
</tr>
</tbody>
</table>

This can be explained on the grounds of the Input Frequency Hypothesis, which pinpoints the relationship between the frequency of L2 input and language acquisition as noticed initially by Hatch and Wagner-Gough (1976). Ellis (1994) claims that the order of accuracy of an input correlates with the acquisition of the same input. The nouns research, homework, and vocabulary are frequently used in the academic field from which the participants were selected. This higher frequency of use could be a facilitative factor in the acquisition of the countability of such nouns. It is possible that the nouns in the Translation Task vary in their frequency of use in the academic field, in that some nouns are more frequently used than the other. This frequency is likely to be responsible for the variability in the accuracy rates of countability judgments in this task.

5.3 Noun Class and Mass/Count Contexts

Given the fact that most nouns in English are of dual countability membership (Allan, 1980), the current study aimed to investigate whether the type of noun and the semantic context (i.e., Mass and Count) in which the nouns appear influence the learners’ countability perception. This section specifically answers the following question: Do Arabic learners’ countability judgments correlate with the type of nouns? The answer to this question addresses the performance of the learners on items involving concrete and abstract nouns in both mass and count contexts.
Based on the results of previous studies (Hiki, 1991; White, 2009; Butler, 1999 & 2002, Cho, 2005) which indicate that countability success rate varies according to the class of noun, and abstract nouns showed lower accuracy rates compared to concrete nouns. This study predicts that the learners would perform better on concrete nouns than abstract nouns. That is because it may be easier for learners to judge visible and concrete nouns that refer to objects with clear physical boundaries than abstract nouns, which can be difficult for learners to draw boundaries for invisible entities.

The results obtained from the subjects’ performance on the concrete and abstract nouns did not statistically support the prediction. Although the Mean score and Success rate for concrete nouns (M= 0.58, success rate of 58%) was slightly higher than the rate of abstract nouns (M=0.56, and success rate of 56%), the difference was not statistically significant. This finding is in contrast to Cho (2005) and Butler (2002) findings, who claimed that abstract nouns are more difficult than concrete nouns in countability judgments. However, this doesn’t seem to be true in the current study, and that their performance on both noun classes was very similar. It is possible that the difference would reach significance with a larger sample of participants.

However, a more significant result was observed from the analysis of the Translation Task alone. The Mean score for concrete nouns (M= .58) is significantly higher than the Mean score of abstract nouns (M=.37). This is in line with the results of Cho (2005) and Butler (2002) who point out that countability judgments of concrete nouns were likely to be easier than abstract nouns for the reasons mentioned above.
5.3.1 Concrete Nouns

The above discussion was about the participants’ performance on abstract and concrete nouns in general. In what follows, I attempt to discuss the role of context (i.e., mass and count) within abstract and count nouns.

The results of the t-test performed on the mass and count uses of the concrete nouns indicated that the participants performed better on the items involving the count use of concrete nouns than on the items involving mass uses of concrete nouns. The subjects obtained higher Mean scores for the count use (Mean= 0.71) than the mass use of the concrete nouns (M= 0.58). This indicates that the subjects seem be more successful in judging the countability status of the concrete nouns when they appear in the count sense than in the mass sense. This result is expected and can be explained on the grounds of the prototypical use of the nouns. Ungerer and Schmid (1996) note that prototypical count nouns usually refer to “things” and such nouns in their prototypical uses are likely to be acquired early. Carter (1987) argues that the learners of English as a second language are likely to acquire concrete nouns more easily and earlier than abstract nouns, and such nouns can easily be recalled.

The word *apple* appeared twice in the FB task, in which the subjects were asked to insert the appropriate article in the blank. *Apple* must be used as a count noun in (a) and a mass noun in (b):

a. If you must eat something, eat ...... apple.

b. This shampoo contains rosemary essential oil and extract, together the fresh scent of ...... apple.

The results show that 82.7% of the participants answered (a) correctly. Here, the referent of *apple* is semantically more concrete in that it represents an individuated object with clear
boundaries. Therefore, it requires the use of the indefinite article *an* in this context. However, *apple* in (b) does not refer to the same referent as in (a). Unlike (a) the referent of *apple*, here, doesn’t denote a bounded entity rather it refers to an unbounded entity; it has no internal parts nor it is composed of *apple* constituents. In this context, the percentage of the participants who answered this item wrong (53.3%) is higher than those of answered correctly (46.7%). In order to convert the *apple* into the scent of apple, the physical discrete shape needs to be destroyed. *Apple* is one of the words that are typically used as a count noun. However, the countability status of such words can easily be converted to mass nouns when they are used in a proper context. Yule (1998) points out that the concept of the noun ‘apple” transforms from “thing” to “substance” when it is used in a phrase, such as “*a teaspoon of apple*” rather than “*a bag of apple*”. Likewise, the discrete form of the apple in (a) is transformed to a substance in (b) denoting a type as a source of a scent. As such, more than half of the participants failed to recognize the subtle difference in the meaning of *apple* when used in the mass context and thus provided the indefinite article in (b), whereas it required *zero* article instead. This finding may indicate that *apple* is more likely to be used as a count noun than a mass noun. It likely that the participants interact with *apple* more often as a count noun than as a mass noun. Sufficient exposure may lead to the acquisition of the full semantic dimensions of such words. This is because the higher the proficiency level of the participants, the more accurate their countability judgments will be, as shown in Figure 9 above. The advanced group show higher success rate in both mass and count uses of concrete nouns than the intermediate and the beginner groups. Advanced learners are expected to have much exposure to the mass uses of concrete nouns than any other proficiency groups. This is evident in the slight difference in the Mean scores of the
mass and count uses of concrete nouns with the advanced group (M= 0.81 for the mass use vs. M= 0.87 for the count use)

What can be concluded from this section is that the subjects are likely to have had more difficulty with the mass use of concrete nouns than the count use of the same noun class. That is, they may not easily recognize the subtle differences in the meaning between the same nouns in the mass and count contexts. This may be attributable to insufficient exposure to the mass use of concrete nouns, and the focus may frequently be shifted to the count use. Yet, the subjects were still found to be sensitive to the conceptual distinctions related to the referents of the concrete nouns in the mass and count contexts. This is shown by the fact that a considerable number of the participants were able to judge the countability status of concrete mass nouns. Progress was observed as advanced group showed stronger ability to recognize both uses of concrete nouns. Therefore, proficiency was an important factor in the increase of the participants’ ability to recognize the differences between the mass and count uses of the concrete nouns.

5.3.2 Abstract Nouns

In line with prior findings on abstract nouns (Cho, 2005), I expected that the participants would perform better on the mass uses of abstract nouns than on the count uses. However, the difference between the mass and count senses of abstract nouns was not significant. The subjects obtained very close Mean scores for both mass and count uses of abstract nouns (M= 0.60 and M= 0.61, respectively). In contrast to Cho’s results, the subjects in the present study had the same successful rates in both the mass and count uses of abstract nouns. This means that the participants seem to have been aware of the fact that abstract nouns can be used typically as mass and also be used as count when denoting a single instance of its kind. Having very close Mean scores indicates that the learners were able to treat abstract nouns as a single instance. For
example, in the FB task, the word *fear* was used in both mass and count contexts, as in the following examples:

c. What is the body language of a person who is feeling …..fear?
d. A lot of my friends had……. fear of going to a country where they didn’t speak its language.

More than have of the subjects (64%) responded correctly to (c), and 62.7% to (d). The former refers to the concept of fear in general, which has no discernible boundaries and thus cannot be individuated. Therefore, it cannot combine with the indefinite article. Instead, the *zero* article is required because denoting a non-specific noun. On the other hand, *fear* in (d) refers to a single specific instance or type of fear (i.e., the fear of visiting a country without being able to speak its language). The existence of the prepositional phrase following the noun signals that *fear* refers to a specific instance rather than generic. Therefore, it requires the insertion of the indefinite article *a*, and apparently most of the participants did insert it.

The subjects’ apparent equal ability to (mis)judge the countability of abstract nouns in both mass and count senses may be attributable to their receiving correct and sufficient information about countability of abstract nouns from some pedagogical grammar books through classroom education. This is supported by the results of the self-report tasks in which 62% of the subjects agreed that they have been taught about countability of nouns in English classes. Furthermore, 40% of them agreed with the statement that they think that it is easy to determine the countability of abstract nouns and 20% were neutral.

Summing up the results of this section, it can be concluded that the subjects are likely to have had equal difficulty with the mass and count uses of abstract nouns. That is, they may have had an equal ability to recognize the differences in meaning between the mass and count contexts of the same abstract nouns. They could have adopted a strategy that helped them decide whether
the abstract noun was mass or count by activating a sentence context that situates that words illustratively. It is reasonable to claim that this context may have been responsible for the activation of particular syntactic characteristics of mass/count distinction at the mental level of the lexicon.

5.3.3 The Role of Proficiency Level

In presenting the role of proficiency on countability judgments, this section discusses the relationships between the proficiency level of the participants and countability judgments of concrete and abstract nouns in both mass and count contexts. As mentioned earlier, based on previous results (Cho, 2005; Butler, 2002) learners of English are able to make accurate judgments on concrete count nouns and abstract mass nouns in both senses. The results of the present study support the findings of the previous studies. It was found that with proficiency level, the performance of the participants on items involving the count use of concrete nouns and the mass use of abstract nouns further improves. This could be due to the subjects’ reliance on the prototypical uses of such nouns. Concrete nouns are typically used in the count senses and abstract nouns are used typically in the mass senses in many pedagogical grammar books (Bland, 1996; Byrd & Benson, 1992; Elbaum & Hardison, 1986).

Interesting results were observed from countability judgments of the mass uses of concrete nouns and the count and mass uses of abstract nouns. It is expected, based on prior research that as proficiency level increases, the realization of mass use of concrete nouns and count use of abstract nouns will develop. The results of the one-way ANOVA reveal that there was a statistically significant interaction between proficiency and the participants’ performance on the mass uses of concrete nouns, p<.041. Even though the overall scores for the mass use of concrete noun were significantly lower than that of the count uses, higher proficiency learners
were able to judge the countability of the mass uses of concrete nouns than lower-level subjects. Games-Howell analysis identified which of the groups performed significantly better than the others. There was a statistical difference between the performance of the subjects in the beginner and intermediate groups, as they had varied Mean scores. In addition, significant results were observed between the advanced and intermediate groups (See Table 19 & Figure 8). This trend shows that proficiency is a factor in the judgments of the mass uses of concrete nouns by the subjects; there is a developmental increase in accuracy as the level of proficiency improves.

It was also found that the subjects performed poorly on the mass uses of concrete nouns if compared to their performance on the count uses of the same category. Only at the advanced level were the subjects able to recognize the mass use of concrete nouns and judge their countability successfully. This suggests that in order for the subjects to make accurate judgments of countability on the mass uses of concrete nouns, they have to reach advanced levels of proficiency.

With regard to the count use of abstract nouns, the results of a one-way ANOVA run on the nouns representing instances of count uses of abstract nouns indicate that proficiency influences the participants’ realization of the count instances of abstract nouns. However, there was not a significant difference between the beginner and intermediate groups, as they had quite close Mean scores.

This result shows how difficult it may have been for subjects to recognize abstract nouns as denoting individual entities or instances. Apart from proficiency, the non-typical instances of abstract nouns pose problems for most subjects. The word *kindness* is a representative example
for this issue. In the EC task, the participants were given the words in contexts and were asked to
decide whether the use of these word in the given contexts was correct or not.

e. It’s not *a kindness* to avoid disciplining children.  
   The majority of the subjects (76%) answered that *a kindness* was wrong, while only 24%
responded that it was correct. That is, the singular use of this noun might have led the learners to
misjudge its countability.

   In sum, the performance of the subjects on the count use of abstract noun was relatively
poor in comparison with the mass use of the same category, especially with the beginner and
intermediate groups. Consistent with some reports in the literature, it suggests that Saudi EFL
subjects are likely to have recognized the mass uses of the abstract nouns more easily than the
count uses. Thus, concreteness (or lack of it) can be an important factor in the countability
judgments of nouns for some learners of English. This is in line with the claim that concrete
nouns might be processed more rapidly due to the fact that they might not only be stored in the
semantic storage in the brain, but also linked to an image (Bickes, 2004). Accordingly, such
nouns are also learned more easily than abstract nouns (Ellis & Beaton, 1993).

5.4 Use of Indefinite Article
   This section discusses of the results of Task 1 (FB) and Task 3 (EC), which aims to
answer the second question in the present study: *Dos noun countability judgments correlate with
the learners’ use of the indefinite and zero articles in English, given that articles in Arabic (L1)*

3 Both *kindness* and *a kindness* are possible in English. Although a native speaker would prefer the later in this
context, it is also possible to leave the article out. However, this changes the sense slightly. A brief search in COCA
revealed that [*it’s is a kindness to…*] occurred 119 times, while [*it’s kindness to …*] occurred only one time. This
means that it is not impossible to use the second but less common.
are not a determining factor of countability? The role of proficiency level will be addressed throughout the discussion for all tasks.

Based on prior research, it was expected that the subjects will perform better on the FB task than the EC task. However, no significant differences in the Mean scores of the subjects’ performance on the two tasks, although their performance was slightly better on the EC task. Different from Cho’s (2005) findings, the subjects in the present obtained slightly higher scores on the EC task than the FB task even though the EC task presumably somewhat more difficult than the FB task, in that the former may involve extra effort in order to detect the error first and then provide correction. However, in fact, it was not a problem for the participants of this study because detecting the error means that the participants’ decisions have been made based on prior knowledge of the correct form.

Putting together the results of the two tasks, they both seem considerably difficult for all proficiency levels. The results of this section suggest that the subjects are likely to have faced difficulty with the use of the indefinite article associated with noun countability regardless of the task type. This contrasts Cho’s (2005) finding that all participants performed better in the use of the indefinite article in the FB task than in the EC task. It is, however, consistent with Butler (2002) and White (2010), who reported that L2 article errors are often caused by misjudgments of noun countability regardless of the task type.

With respect to the influence of proficiency on subjects’ performance, a positive relationship between learners’ performance on the FB task and their proficiency level as was observed, as shown in Table 8 in the previous chapter. That is, the scores of the learners increased significantly as their level of proficiency level progressed, and the differences between
the three groups were significant. The gap in the scores between the beginner and intermediate groups in the EC task was small and insignificant (See Table 9), while the differences between the advanced group and the other groups were significant, as can be seen in Figure 2. That is, the learners did not make steady progress in this task from the lower to the higher-level groups. Instead, they spend a longer time at a lower stage and then make great progress as their proficiency advances. The results of this task agree with the concept that acquisition is “an organic rather than a linear process (Nunan, 2001: p.91). L2 learners of English often have persistent difficulty in some L2 structures until very late stages of acquisition (Master, 1989). Archibald (1996) claims that accuracy rates naturally increase following the developmental nature of SLA. However, in some cases, such rates should initially be small but then remain or even decrease at the intermediate level, forming U-shaped development, before increasing again at the advanced level. That is, learners start out doing correct structural forms at their early stages of language learning, then subsequently remain at the same level of performance or even drop doing incorrectly, and then re-acquire the correct structures as they advance (VanPatten & Williams, 2007).

In sum, it can be concluded that proficiency level plays an essential role in the performance of the participants on both tasks. This confirms Cho’s (2005) results regarding the importance of proficiency level in her Korean subjects’ accuracy of using the indefinite article. Both studies agree that there is an interaction between the subjects’ level of proficiency and their performance on indefinite article tasks.

5.5 Metalinguistic Knowledge and Learning Strategy of Noun Countability

The following sections deal with the results of the Self-report tasks concerning the linguistic schema of the participants regarding noun countability related issues. This section is
composed of two subdivisions; the first explores the participants’ metalinguistic knowledge about noun countability in English in relation to noun class (only concrete and abstract nouns are discussed). The second section discusses the participants’ attitudes towards identification of noun countability and learning background and strategies they use in learning countability.

### 5.5.1 Noun Class and Countability

Even though Chesterman (1991) claims that there is no relationship between countability and noun class, the results of the first section of the self-report task disagree with his claim. Cho (2005) states that Korean EFL learners are likely to be taught countability in relation to noun class. Thus, it is not surprising that her results reveal that the majority of the participants treated concrete nouns as count and abstract nouns as mass.

The purpose of the self-report task was to gain knowledge of the linguistic schema of the participants regarding noun countability related issues. The first section of the self-report task investigated the subjects’ knowledge of the relationship between countability and noun class. It contained five statements regarding the participant’s reaction to the noun class and countability. They were asked to select one of five choices to each statement to indicate how strongly they agree or disagree with each statement.

Consistent with Cho’s results, it seems that the subjects link noun countability status to the noun class. With regard to the first statement concerning concrete nouns, *Concrete nouns are countable*, the vast majority of the subjects (96%, n=72) responded positively that concrete nouns are considered countable, while only 2.7% (n=2) responded negatively, with one response missing. This indicates that the Saudi subjects of had a strong tendency to think that there is a relationship between countability and concreteness.
On the other hand, the majority of the subjects responded negatively to the statement concerning abstract nouns, *Abstract nouns are countable*, (73.3%, n=55) and only 25.4% of them positively agreed, with one response missing. This shows that even though their responses to the second statement were not as strong as to the case of concrete nouns, the Saudi subjects appear to think that there is nonetheless a connection between abstract nouns and non-countness. Figure 21 summarizes the participants’ responses to both noun classes.

**Figure 21: Judgment of countability of abstract and concrete nouns**

What can be concluded from this Figure is that there was a strong tendency for the Saudi subjects to link concrete nouns to countness, and abstract nouns to non-countness though the tendency of the latter was less strong. These findings are in line Butler (2002), Cho (2005), and white (2009), who claim that ESL learners have trouble classifying abstract nouns in count contexts as opposed to concrete nouns, which are likely to be considered countable.

**5.5.2 Perception of countability**

In the second part of the survey, the participants were given 11 statements concerning different countability related issues. They were instructed to express their degree of agreement or
disagreement with these statements. The first two statements were provided to answer the question of how countability is assigned to nouns. These statements are as follows:

(2) The countability of English nouns is determined by the given context.

(7) In English, countability of the noun is fixed to the noun itself.

In response to statement (2), 63.3% (n= 48) of the participants agreed with the statement and only 8% disagreed. A rather high percentage (26.7%) of the participants showed some hesitation as they selected the neutral response. That is, the majority of the subjects agree that the context plays an essential role in determining noun countability.

A lower level of agreement occurred in the responses to Statement (7). About 26.6% percent of the participants agreed that countability is fixed to the noun itself, while 45.4% disagreed, with 28% were neutral (See Figure 22). This means that the participants had a flexible notion of countability.

![Countability Perception Chart](image)

*Figure 22: The participants’ reaction to countability assignment to the noun and context.*

This finding is consistent with the results of the JCC and JCI tasks concerning the role of context in countability judgments. There was a statistical difference in favor of the participants’
performance on nouns given in context over nouns presented in isolation. In line with Cho (2005), it can be suggested that Saudi EFL subjects appear to employ the context to judge the countability of nouns rather than considering countability as a fixed feature to the noun itself.

5.5.3 Attitudes towards Noun Countability

One of the major issues in this study is the relationship between noun class and countability. For this purpose, the participants’ attitudes were investigated through two statements, 3 and 8 below, in the subjects’ self-report task:

(3) I think it is easy to determine the countability of abstract nouns.
(8) I think it is easy to determine the countability of concrete nouns.

The percentages of the participants who agreed and disagreed with statement 3 were very close (37.3% agreed, 40% disagreed, with the remaining participants were neutral 21.7%). In response to statement (8) concerning concrete nouns, a rather high percentage of the subjects agreed with this statement (77.4%). Only 8% disagreed, and 13% were neutral. This can be interpreted to mean that determining the countability of concrete nouns is significantly easier than abstract nouns (See Figure 23).

![Figure 23: The subjects' attitudes toward countability and noun class](image-url)
Consistent with Cho’s results, the relatively close percentage of agreement and
disagreement with the statement concerning abstract nouns and the high percentage of hesitation
suggests that the subjects found it difficult to determine the countability of abstract nouns. This
also goes in hand with Hiki (1991) and Butler (2002), whose findings revealed that the greatest
number of countability misjudgments were with abstract nouns as compared to material and
proper nouns.

5.5.4 Learning Background and Learning Strategies

The self-report task included two statements concerning the participants’ learning
background and the strategies they use to learn about noun countability. The statements are as
follows:

(1) I think I have been taught about countability of nouns in English classes.
(6) I learned about countability of English nouns from English reference books.

The results show that 61.4% of the subjects agreed with statement (1) and only 6.6%
disagreed, with 30.7% were neutral. Regarding learning about countability from English
reference books, only 30.6% of the participants agreed, while 40% disagreed, with 28% were
neutral. This means that some participants had received information about countability not only
in classroom but also from English reference books. These books may have been used as
additional resources for learning about countability. However, it is essential that they have access
to more reliable pedagogical books that display the notion of countability properly. The strong
agreement with the statement concerning learning about countability in the classroom and the
relatively high level of disagreement with statement (6) concerning learning from reference
books (See Figure 24) indicates that the classroom may have been more effective in teaching countability than reference books\(^4\).

Figure 24: The participants' countability learning background

Of relevance to learning backgrounds, there was a question in the task about memorization as a strategy for learning countability. There was not a big difference between those who agreed (37.7\%) and those who did not (29.4\%), with 32\% were neutral and one response missing.

A number of the participants (37.7\%) had the tendency to employ memorization strategy to learn about countability. It is not surprising to see that some of the participants believe that memorization is a very common strategy for learning countability because this is how many learners usually start out with. Moreover, this may be attributable to the general tendency of the

\(^4\) The subjects may have not been able to differentiate between textbooks and references books. Being non-native speakers of English, they might have interpreted textbooks as reference books. The students in Al-Majmaa University have very limited access to grammar reference book. Therefore, this may have been a reason for the big difference in the subjects’ responses to statements 1 & 6.
employment of spoon-feeding and memorization-dependent teaching methods in schools in
Saudi Arabia.

In addition, the participants were asked to evaluate their awareness of the relationship
between the countability of English nouns and articles use. The majority of the participants
(60%) believed that there is relationship between the two, while only 9.3% were not aware of
such a relationship, with 29.3% were neutral and one response missing. In other words, most of
the participants were aware of the fact that countability of nouns is highly connected to the use of
English indefinite articles. When asked countability is an important concept in English grammar,
only 2.7% of the subjects disagreed, while the majority (64%) agreed, with 32% were neutral.

5.5.5 Summary
The results of the self-report section of the survey can be summarized as follows. First,
the majority of the Saudi EFL subjects are likely to have linked countability of nouns to noun
class. That is, they tended to link countness to concrete nouns and non-countness to abstract
nouns. Second, most of the subjects appear to employ context to judge the countability of nouns
rather than considering countability as a fixed feature to the noun itself. Third, the judgments of
countability of abstract nouns seemed to be more difficult than for concrete nouns. Fourth, the
classroom is not the only source of information about countability, as reference books are also
used by some of the participants to learn about noun countability. Fifth, Memorization seems to
be favored by some participants as a strategy of learning about countability of nouns in English.
Finally, the majority of the subjects believe in the importance of the concept of countability in
English grammar and they are aware of its relevance to the use of the indefinite articles in
English.
6.0 Summary

In view of the fact that many ESL learners have serious difficulty with the selection of the appropriate NP forms (i.e., articles and plural, which require knowledge of countability), the current study investigated Saudi EFL learners’ judgments of countability of English nouns. English articles are regarded as one of the most challenging grammatical structures for Arabic learners of English (Parrish, 1987) due, in part, to the fact that there is not any indefinite article in Arabic as opposed to English. In the area of second language acquisition, countability judgments have received little attention, and only judgments of speakers of two classifier languages (i.e., Korean and Japanese) have been investigated (Butler, 1999; Hiki, 1991; Yoon, 1993 and Cho, 2005). This study differs in that it investigated countability judgments by speakers of Arabic (i.e., a non-classifier language) which has an article system and plural marking.

The current study aimed to discover whether: (1) noun countability judgments correlate with the learners’ use of the indefinite in English, given that articles in Arabic (L1) are not a determining factor for countability, (2) context aids Arabic learners of English to make better judgments of noun countability, (3) countability judgments correlate with noun class (concrete vs. abstract), (4) Arabic (L1) knowledge plays a role in the judgments of noun countability in English (L2), and (5) proficiency correlates with better performance on countability judgments.

In order to answer these questions, five tests and a self-report task in a written questionnaire were utilized. Section I of the instrument involved five tasks concerning subjects’ countability judgments of nouns and the use of the indefinite article (i.e., The FB and EC tasks). The other two tasks were meant to measure the role of context by means of judging the
countability of nouns in isolation and in context. The role of language transfer was also
examined by means of the Translation task, in which the participants were asked to translate
Arabic sentences containing incongruent nouns in terms of countability into English. The second
section contained a self-report tasks testing the subjects’ metalinguistic knowledge of
countability judgments and learning backgrounds about noun countability.

Regarding the relationship between the use of the indefinite and zero articles and
countability judgments, the results indicated that there was an interaction between the subjects’
performance on the indefinite and countability judgments. However, unlike Cho’s and other
studies, there were no significant differences between the participants’ performance and the task
type, in that they had very close scores in both the FB and EC tasks. It was also found that
proficiency level interacts with the performance of the participants on the use of the indefinite
article in the FB task and significance was observed across all the groups. However, regarding
the EC task, the accuracy rates for the beginner and intermediate groups were close; the learners
struggled with this task at both of these levels, showing higher rates only at the advanced level.
The conclusion is that the subjects’ countability judgments and article choice were influenced by
L2 proficiency. The more proficient the learners are, the more accurate countability judgments
they make through supplying the proper article.

Context was found to be a crucial factor in judging the countability of nouns. The
subjects showed higher accuracy rates for countability judgments of nouns given in context than
for nouns in isolation. A high percentage of the participants were able to shift their decisions
regarding countability based on context. Consistent with Cho’s (2005) finding, the Saudi EFL
subjects had a flexible notion of countability. This was different from the findings of Butler
(1999) and Yoon (1993), who concluded that Japanese learners treated countability as a fixed
property of the noun. The subjects’ responses to the JCI task provided support for the application of Prototypicality Theory in that the majority seem to have based their countability decisions on the prototypical instances of nouns they already know.

Even though the study anticipated that the participants would perform better on concrete nouns than abstract nouns, the results failed to support this expectation; their mean scores were very close on both nouns. A significant result was observed, however, in the analysis of the translation task alone, in which the performance on concrete nouns was significantly higher than on abstract nouns.

The context of the noun (mass or count) was found to be a relevant factor in countability judgments of concrete and abstract nouns. The Saudi EFL subjects are likely to have had more difficulty with the mass use of concrete nouns than the count use. This was evident in the significant difference between the accuracy rates of the two. They performed poorly on the mass use of concrete nouns as compared to the count use. The performance on the mass and count sense of concrete nouns positively correlate with proficiency level. Significant progress with the mass use of concrete nouns was exhibited only at the advanced level. In addition, in the self-report tasks, the majority of the subjects linked noun countability of the noun class; concrete nouns were thought to be countable and abstract nouns were treated more as mass. Unlike concrete nouns, the subjects were sensitive to the mass and count sense of abstract nouns in general; their performance on the count use was very close at the beginner and intermediate groups indicating how difficult the count use might have been at the early stages of language learning.
The current study also investigated L1 effect on L2 countability judgments given that countability features are treated differently in the two languages. The analysis of the Translation Task, which was specially designed for the tracing L1 effects, found that L1 influenced countability judgments in L2. The target nouns in the Arabic sentences were all count in Arabic. Taylor (1993) and others state that mass/count distinction is language specific and that languages categorize nouns differently. The list of nouns in this task are treated differently by Arabic and English; they are all count in Arabic and their counterparts are mass in English. The expectation was that their accuracy rates in making countability judgments of these nouns would be the lowest compared to the other tasks. The results supported this expectation and showed that the mean scores in this task was the lowest, as expected. Regardless of proficiency level, the subjects were consistently inaccurate with incongruent nouns. They either overused the indefinite article or added the plural marker to mass nouns (e.g., *a bread, *a cake, *evidences, etc.), suggesting that the Saudi EFL subjects considered certain mass nouns in English as count. Their poor performance on such nouns may have been attributable to their knowledge of Arabic, as previously stated in Section 5.2. On the other hand, their performance rates on other nouns in the same task (e.g., homework, vocabulary, research, etc.) increased even though these nouns were still incongruent in terms of countability with Arabic, and thus L1 transfer cannot explain the increase. The frequency of such nouns in the academic field may have been a facilitative factor for learning about the countability of these nouns. This is consistent with Hatch and Wagner-Gough (1976) and Ellis (1994) claims that there is a relationship between the frequency of L2 input and language acquisition.

In addition, the study included self-report tasks in order to gain knowledge of the linguistic schema of the participants regarding noun countability related issues. The finding
based on the first section of the this task is that there was a strong tendency for the Saudi subjects
to link concrete nouns to countness, and abstract nouns to non-countness though the tendency of
the latter was less strong. With respect to subjects’ awareness of the role of context in
countability judgments, the results suggested that the subjects appeared to employ context to
judge the countability of nouns rather than considering countability as a fixed feature to the noun
itself. In addition, the findings revealed that the subjects were more likely to think that judging
the countability of abstract nouns was more difficult than concrete nouns. Finally, the majority of
the subjects believe in the importance of the concept of countability in English grammar and they
are aware of its relevance to the use of the indefinite articles in English

Finally, the present study investigated noun countability judgments by speakers of a non-
classifier language (Arabic), in order to compare the results with the results in the prior research
on classifier languages (Hiki, 1991; Cho, 2005; Butler, 1999; etc.). Even though these languages
deal differently with mass/count distinction than Arabic and English, the results were highly
consistent, and language type was not an important factor in countability judgments. The Arabic
speaking subjects had issues with countability judgments even though Arabic is closer to English
(i.e., has an article system and plural markers) than classifier languages.

6.1 Pedagogical Implications

The results of the present study show how complex the task was for the subjects in
acquiring English indefinite article, and how difficult it was for them to prevail over L1
influence. The instrument in the present study included nouns that are frequently used. However,
the findings on the countability judgment tasks showed how often the subjects misjudged the
countability of nouns. Even advanced subjects frequently misjudged the countability of L2
nouns, with the highest rate obtained being 86% in all tasks. Given the fact that countability
contributes to word meaning, providing explicit instruction on noun countability might be helpful for learners to recognize the role of articles in countability and to recognize that nouns in L1 are not necessarily the same as in L2 in terms of countability. How should noun countability be taught to help learners to properly employ articles? Even though no direct answer to this question emerges from the present study, a number of pedagogical implications can be drawn in light of some of the findings.

First, according to the results of the Translation task compared to the results of the other tasks, the subjects’ accuracy rates declined when L2 nouns were incongruent with L1 nouns. The teachers’ knowledge of countability in L1 might be useful for them to identify nouns that are likely to cause difficulty for the learners in making countability judgments. Creating a list of all nouns that are different from L1 in terms of countability might be useful, even though one may seem unproductive or unrealistic, but at least it would draw students’ attention to the issue. To avoid ending up with a long list words if all incongruent nouns were listed together, categorizing these nouns based on noun type (abstract vs. concrete) as classified in the Translation task in this study would make the number of nouns under each category smaller. In addition, learners should be taught that most English nouns can be used in both mass and count contexts. Two reasons may be responsible for the fact that the learners had difficulties with recognizing noun countability. The first reason is related to the methodology of teaching; teachers may use ineffective methods of teaching the concept of countability. In addition, perhaps most of high school or even college level teachers may not be aware of countability feature and they teach in a certain way because they do not know any better.

Second, the subjects’ responses to the JCI show their reliance on their intuition of prototypical uses of nouns. This finding agrees with their performance on the count use of
concrete noun (See Section 5.1.1), and count and mass use of abstract nouns (See Section 5.1.2). Teachers who work with Arabic learners of English should be aware of their tendency to use their knowledge of prototypical instances of noun countability with nouns in general. In addition, teachers should use corpora in class, which cover instances of both prototypical and non-prototypical use of nouns. Also, Riddle (1988) suggests that the use of realia in the classroom can be a useful tool to help learners distinguish between mass and count noun in English.

Third, the results showed that the vast majority of the participants had the tendency to make associations between noun countability and noun class. Specifically, countness was linked to concreteness and non-countness to abstractness by the majority. However, many nouns can be used as either count or mass based on the given context; therefore, it is important for the teachers to raise Arabic speaking EFL learners’ awareness of this fact and make it clear that linking the countability status of the noun to its class is misleading.

Fourth, the results of the JCC and FB tasks showed that the majority of the participants were able to make correct countability judgments on non-prototypical instances of nouns. This means that the subjects used the syntactic cues given in contexts. The positive correlation coefficient \((r = 0.561)\) shows that their ability in these tasks is a good indicator of future success in making countability judgments, which in turn assists in the proper use of articles. This positive result should help teachers to be aware of the role of context in teaching noun countability.

Fifth, even though the overall accuracy rates for concrete and abstract nouns were very close, there was a significant difference between the beginner and intermediate groups with the respect to the count use of abstract nouns. Furthermore, the results of the Translation task alone

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5 Realia is term for real things –concrete objects- that are used in the classroom to build background knowledge and vocabulary. It is used to provide experiences on which to build and provide students with opportunities to all the senses in learning.
indicate that judging countability of abstract nouns was more difficult than concrete nouns. This suggests that teachers should pay special attention in presenting the countability of abstract nouns. Since they most are of dual countability membership and can be used in different countability contexts, special concentration should be placed on non-prototypical instances of this class. The lack of a major difference between the beginner and intermediate groups might seem to indicate that little learning is taking place at the intermediate stage. However, it is important for teachers to understand that even at the intermediate stage, cognitive interlanguage development may be occurring even though there may not be clear indications of changes.

6.2 Limitations

The present study has provided further empirical evidence that noun countability and the use of English indefinite article present different levels of difficulty for Arabic speakers of English. These results should not be overgeneralized to all Arabic EFL learners because this study has its own limitations.

First, the present study included a translation task in order to investigate whether L1 has an influence on noun countability in L2. This task was preferred over other tasks, such as free writing, because it encouraged the use of the target noun in indefinite contexts. It was possible to control the type of nouns in this task in terms concreteness and abstractness, which included five of each. However, it has its own shortcomings. There are different ways to translate the same sentence, which sometimes helped the subjects to avoid the target noun. It would have been better to have an additional short task or just adding more items to the same task in case some responses were left out because some subjects avoided the target word and provided irrelevant answer. For instance, two subjects provided the word assignments instead of homework. These responses were ignored because assignments does not serve the purpose of this study due to the fact that it is a count noun. If they have used homeworks, it means that it most likely to be carried
over from Arabic. Another limitation of this task was that all the nouns included were incongruent with English in terms of countability. It would have been useful if an equal number of congruent nouns as well had been included in the task in order to examine how the subjects would respond to each category.

Another limitation of this study stemmed from the small number of nouns in the tests. Having larger number of nouns would have helped interpreting the results. Third, the words used in the tasks were given in short sentences. Giving more sufficient context might have helped the subject to make better judgments of countability.

Fourth, the categorization of students’ proficiency levels was done based on the number of semesters in the program. Such identification of proficiency may be inaccurate due to the fact that their real proficiency could have been different than the one they were assigned. It would have been better if the participants had taken language background standardized tests, such as the TOFEL or IELTS. Having a clearer assessment of their proficiency might have affected the results and yielded more accurate rates.

Fifth, the instrument used in the present study was a written test and for this reason was limited to the formal written language. The tests should have been extended to include spoken casual conversation. Subjects’ performance can differ in written and spoken tests. Spontaneity variable is an important factor in testing the subjects’ cognitive ability with respect to noun countability. The subjects have the chance to self-monitor their written responses to the tasks, while it is less likely that they monitor their speech delivery. It would have been useful to include oral tasks (e.g., role plays/dialogues with visual or L2 cues, simulations, etc.) in order to examine whether spontaneity influences noun countability judgments.
Finally, the sampling was small and only limited to a group of Saudi EFL subjects, who should not be equated with other Saudi learners of English. It would have been desirable to extent the results to larger population. Future research should consider using a larger number of participants from different parts of the Arabic world.

6.3 Future Research

In order to examine the extent to which L1 influences countability judgments, the data in the present study were elicited from Arabic speaking EFL learners who were presumably isolated from contact with native speakers of English. A replication of the study with ESL learners in an L2 environment may provide different results regarding L1 influence because the contact with native speakers in an L2 environment is more extensive than in an L1 environment.

The current study showed that the subjects had low mean scores in the translation task because all the nouns used were incongruent with English in terms of countability. Future research should also include congruent noun to examine whether congruency would have influenced their countability judgments.
REFERENCES


APPENDICES

APPENDIX I

PART I

Demographic Information:

1- Age range?
   17-24  25-29  30-35

2- Circle your proficiency level based on your academic level?
   a) Beginner (level 1 &2)
   b) Intermediate (level 4 &5)
   c) Advanced (level 7 &8)

3- Have you ever travelled to an English-speaking country:
   a) No.
   b) Yes.

4- Do you have an English speaking family member at home?
   a) No.
   b) Yes.

Task One: Fill-in-the-Blank

In the sentences below please fill-in-the-blanks with the appropriate articles such as a/an, the. In the cases where sentences do not need any articles, insert Ø.

1- There was a fight in the neighborhood, and I was at home. One boy in the street threw -------- stone and ran away.

2- In our society …… marriage is the structure to create a stable family unit.

3- This shampoo contains rosemary essential oil and extract, together the fresh scent of …… apple.

4- John said that …… chicken is popular food partly because it is convenient to buy and prepare.

5- My sister finally decided that getting …… education is important.

6- When I was learning to cook, at my mother’s house, I was making …… cake and forgot to grease …… pan.

7- At Almajmaa University, we believe that learning …… language should be an enjoyable and rewarding experience.

8- What is the body language of a person who is feeling …… fear?

9- His recipe for …… success is simple. Just like in life you need ideas.

10- Some children are curious about …… fire simply because they do not understand it.

11- The fact that …… college is expensive is true.

12- A few weeks ago, I received a letter from you saying that I saved …… life by treating a cat run over by a car.
13- Pyramids in Egypt were built of …… stone or mud brick to house the remains of Egyptian king.
14- We found …….chicken in our backyard.
15- Ali likes …….cake a lot, particularly if it’s chocolate and accompanied by a nice cup of Arabic coffee.
16- From the simplest, shortest conversations to the most complex technical manuals, …… language is the basis of all human communication.
17- There was …….fire in the factory sparked by a worker’s cigarette.
18- The play was ……. success and it had a run of fifty performances.
19- There are quite a few things that can cause ……. marriage to fail.
20- There is a good reason to examine “fairness” in …….media.
21- Choosing …….college or university can be a difficult task.
22- If you must eat something, eat ……. apple.
23- There was a long silence, but I could hear breathing.” Speak up. I said.” “…..life is short.”
24- A lot of my friends had……. fear of going to a country where they didn’t speak its language.
25- The first man in The Kingdom of Saudi Arabia King Salman says ……. education is the key to a more peaceful and prosperous future for all countries.

Task Two: Judgment of Countability of nouns in isolation

Instruction: In each word in the list circle the appropriate symbol that best describe the noun:
- Circle C if the noun is used only as COUNTABLE
- Circle M if the noun is used only as COUNTABLE
- Circle CM if the noun can be used either COUNTABLE or MASS.
- Circle NC if it is NOT clear to you.

Illustrative Examples:
1- Iron vs. an iron
   a. Iron is abundant in the Earth. (M)
   b. I bought an iron for $50. (C)

So, iron can be either MASS or COUNT (CM)

2- Cheese vs. a cheese
   a. I like cheese. (M)
   b. I found a cheese that is made in Saudi Arabia. (C)

So, iron can be either MASS or COUNT (CM)

1. Chicken  [C M CM NC]  2. stone  [C M CM NC]
3. marriage  [C M CM NC]  4. knowledge  [C M CM NC]
5. college  [C M CM NC]  6. fire  [C M CM NC]
<p>| | | | | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>7. cake</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td>8. success</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. education</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td>10. fear</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. life</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td>12. language</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. garlic</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td>14. wine</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. brick</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td>16. school</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. beer</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td>18. understanding</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. mail</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td>20. kindness</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21. boy</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td>22. coffee</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23. light</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td>24. reality</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25. divorce</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td>26. apple</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27. equipment</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td>28. culture</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29. bread</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td>30. advice</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31. joy</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td>32. candy</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33. beauty</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td>34. email</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35. egg</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td>36. water</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>37. victory</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td>38. happiness</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>39. freedom</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td>40. evidence</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>41. fun</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td>42. love</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>43. failure</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td>44. rock</td>
<td>C</td>
<td>M</td>
<td>CM</td>
<td>NC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Task Three: Error Correction (EC):

Read the following sentences and answer according to the directions given. Some of the underlined noun phrases are correct and some other are not. For each sentence, put check [√] if the sentence is correct and put [X] if the sentence is incorrect. Then, if the sentence is incorrect, provide the correct form. In the blank below.

Illustrative examples:

1- Do you know the author of this book? [√]
   Correction: ..............................

2- My sister bought cat. [X]
Correction: ……a cat…..
3- I bought a sugar yesterday. [X]
   Correction: ……sugar…..
4- He wants to carry luggages by himself. [X]
   Correction: ……luggage…

1- Today at school I found a rock on the road. 
   Correction: ______________________
2- This video shows that people came to America not only for business opportunities, but also searching for freedoms they couldn’t find in their own countries. [ ]
   Correction: ______________________
3- The military has also moved an equipment to safer site. [ ]
   Correction: ______________________
4- “I thought if he could have a beer, I could have one, too. [ ]
   Correction: ______________________
5- Interviews with controversial people often draw a lot of mails. [ ]
   Correction: ______________________
6- Most art in the East originates from a love of God. [ ]
   Correction: ______________________
7- You could read a newspaper in the bedroom without light on inside. [ ]
   Correction: ______________________
8- A knowledge of Spanish is definitely not required; indeed, some of the best tutors are those who don’t speak Spanish. [ ]
   Correction: ______________________
9- I thought it was fun when you came and played with me. [ ]
   Correction: ______________________
10- I’m not here to give you advices to tell you how to live your life.
    Correction: ______________________
11- There is a little doubt that a garlic reduces blood cholesterol. [ ]
    Correction: ______________________
12- We need an evidence to that teaching and learning are improved as the result of technology. [ ]
    Correction: ______________________
13- The Saudi Bakery Company Almarai claims to have produced a bread that has a crunchy outside whilst retaining a soft inside. [ ]
    Correction: ______________________
14- Coffees grown in the high mountains have a light smoked flavor. [ ]
    Correction: ______________________
15- Not saying something that you believe is not a kindness to a child. [ ]
    Correction: ______________________
16- Yanbu Beach, an old and picturesque fishing Beach, is one of the city’s most visited spot, partly due to its clear quiet waters. [ ]
    Correction: ______________________
17- It is at this stage that children need to acquire an understanding of the concept of individual differences.

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Correction: ________________________

**Task Four: Judgment of Countability of nouns in context (JCC)**

For each underlined noun phrase indicate whether it is count noun (C) or mass noun (M). All the sentences below are correct.

Illustrative examples:
- a- She likes to read a book. (C)
- b- Food is essential for life. (M)

4- Research on single and divorced mother households proves that divorce harms children. [    ].
5- What can one say about a culture that requires an ideal weigh that is dangerously thin. [    ].
6- She is not a beauty even when she smiles. [    ].
7- Internal walls made of brick are usually fire-resistant. [    ].
8- There was a boy she loved painfully through two school semesters. Months later, she told me how much she had taken pennies from my purse to buy him candy. [    ].
9- The result was a victory for forty-six your old Bill Clinton. [    ].
10- Muhammad, a teaching assistant at King Saudi University, says, e-mail is a growing and problematic factor in her relationship with students. [    ].
11- All the juices on this list are between $8 and $15. Please remember, everyone’s taste is different, just because I like a juice doesn’t mean you will. [    ].
12- I always thought work was the key to happiness, for women as well as men. [    ].
13- There are many reasons for hating school and students having attendance problems. [    ].
14- Khalid is a fine conductor. He was a joy to work with and a pleasure to meet. [    ].
15- His last memory of his brother was the look on his face as he was covered with egg. [    ].
16- Can an idea in a book become a reality? [    ].
17- The houses on the north side of this street cling to an immense wall of rock that rises directly behind him. [    ].
18- Give your child, boy or girl, a doll to play with. [    ].
19- Attention-Deficit Hyperactivity Disorder: A new theory suggests the results for a failure in self-control. [    ].
20- We wanted to bring together two different types of people: those who want to read poems, and people who want to drink coffee. [    ].

**Task Five: Translation Task**

Translate the following sentences into English:

ترجم الجمل التالية للغة الإنجليزية:
يكتب الأستاذ أبحاثاً مع طلابه.

1.

يعطي المعلم الواجبات المنزلية كل أسبوع.

2.  

ليس من السهل أن حفظ المفردات الإنجليزية.

3.  

الصبر فضيلة.

4.  

نحن بحاجة إلى العثور على أدلة لإلقاء القبض عليه.

5.  

اشتري الولد طباشير.

6.  

اشتري الرجل معدات.

7.  

رأيت الأدخنة تخرج من المدخن.

8.  

أكل الطفل الكعكات.

9.  

أعدَّ علي ثلاث خبزات هذا الصباح.
APPENDIX II

PART II

Task one:

Using the following scale, read the following statement and circle the answer that you agree with most.

<table>
<thead>
<tr>
<th>Always</th>
<th>Often</th>
<th>Usually</th>
<th>seldom</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

1. Concrete nouns (e.g., book, car, etc.) are countable. 1 2 3 4 5
2. Abstract nouns (e.g., freedom, anger, etc.) are countable. 1 2 3 4 5
3. Material nouns (e.g., iron, butter, etc.) are countable. 1 2 3 4 5
4. Collective nouns (e.g., police, cattle, etc.) are countable. 1 2 3 4 5
5. Proper nouns (e.g., Johnson, London, etc.) are countable. 1 2 3 4 5

Task two

Using the following scale, read the following statement and circle the answer that you agree with most.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>agree</th>
<th>Not sure</th>
<th>disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

1. I think I have been taught about countability of nouns in English Classes. 1 2 3 4 5
2. The countability of English nouns is determined by the given context. 1 2 3 4 5
3. I think it is easy to determine the countability of abstract nouns. 1 2 3 4 5
4. I think I know well about the countability of English nouns. 1 2 3 4 5
5. I think it is easy to determine the countability of material nouns. 1 2 3 4 5
6. I learned about the countability of English nouns from English reference books.

7. In English, countability of the noun is fixed to the noun itself.

8. I think it is easy to determine the countability of concrete nouns.

9. The countability of English nouns should be memorized.

10. The countability of nouns is closely related to the selection of articles.

11. I think countability of nouns is one of the most important grammatical concepts in English.

---

**The Arabic text with its target translation:**

<table>
<thead>
<tr>
<th>Target Translation</th>
<th>Source Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The professor is doing research with his students.</td>
<td>يكتب الأستاذ أبحاثاً مع طلابه.</td>
</tr>
<tr>
<td>2. The teacher gives homework every week.</td>
<td>يعطي المعلم الواجبات المنزلية كل أسبوع.</td>
</tr>
<tr>
<td>3. It is not easy to memorize English vocabulary.</td>
<td>ليس من السهل أن حفظ المفردات الإنجليزية.</td>
</tr>
<tr>
<td>4. Patience is virtue.</td>
<td>الصبر فضيلة</td>
</tr>
<tr>
<td>5. We need to find evidence to arrest him</td>
<td>نحن بحاجة إلى العثور على أدلة لإلقاء القبض عليه.</td>
</tr>
<tr>
<td>6. The boy bought chalk.</td>
<td>اشترى الولد طباشير.</td>
</tr>
<tr>
<td>7. The man bought equipment</td>
<td>اشترى الرجل معدات.</td>
</tr>
<tr>
<td>8. I saw smoke coming out of the chimneys.</td>
<td>رأيت الأدخنة تخرج من المداخن.</td>
</tr>
<tr>
<td></td>
<td>English</td>
</tr>
<tr>
<td>---</td>
<td>---------</td>
</tr>
<tr>
<td>9.</td>
<td>The child ate cake</td>
</tr>
<tr>
<td>10.</td>
<td>Ali baked three loaves of bread this morning</td>
</tr>
</tbody>
</table>