Using Input Enhancement and Online Corpora to Develop University Students’ EFL Collocational Competence

BY

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Abstract:
This study attempted to investigate the effect of using input enhancement and online corpora on developing university students' EFL collocational competence. Participants (N = 51) were chosen at random from first year students enrolled at the Faculty of Tourism and Hotels, University of Sadat City, during the first semester of the 2018-2019 academic year. They were divided into two groups: an experimental group (n = 95) and a control one (n = 95). An EFL collocational competence test was developed and administered before and after experimentation that lasted for eight weeks during which the experimental group students were taught using input enhancement (in-class input-enhanced reading activities) and online corpora (out-of-class corpus-based activities via the online tool COCA) while the control group students received regular instruction. Results revealed that the experimental group students achieved significant improvement in EFL collocational competence. Thus, using input enhancement and online corpora proved to have a positive effect on developing university students' EFL collocational competence.

Keywords: Input enhancement, online corpora, EFL collocational competence, university students.
استخدام تعزيز المدخلات والنصوص الإلكترونية لتنمية كفاءة التّضام المُعْجَمي باللغة الإنجليزية لغة أجنبية لدى طلاب الجامعة

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المستخلص:

هدفت الدراسة الحالية إلى اختبار أثر استخدام تعزيز المدخلات والنصوص الإلكترونية على تنمية كفاءة التّضام المُعْجَمي (التّلزام المُعْجَمي) باللغة الإنجليزية لغة أجنبية لدى طلاب الجامعة. وتكونت عينة الدراسة من 50 طالبًا من طلاب الفرقة الأولى بكلية السياحة والفنادق، جامعة مدينة السادات، خلال الفصل الدراسي الأول من العام الجامعي 2018-2019، حيث تم تقسيمهم إلى مجموعتين: مجموعة تجريبية (ن = 25) ومجموعة ضابطة (ن = 25). ولقد قامت الباحثة باستخدام اختبار كفاءة التّضام المُعْجَمي باللغة الإنجليزية لغة أجنبية كاختبار قبلي-بعدي. ولقد استغرق التدخل التجريبي ثمانية أسابيع، حيث تم التدريس للمجموعة التجريبية باستخدام كلا من تعزيز المدخلات والنصوص الإلكترونية أما المجموعة الضابطة فتم التدريس لها بطريقة المعتادة. ولقد أوضحت نتائج الدراسة أن طلاب المجموعة التجريبية أظهروا تقدماً دليلاً إحصائياً في كفاءة التّضام المُعْجَمي باللغة الإنجليزية لغة أجنبية. ولقد خلصت الباحثة من الدراسة الحالية إلى أن استخدام تعزيز المدخلات والنصوص الإلكترونية له أثر دال إحصائياً على تنمية كفاءة التّضام المُعْجَمي باللغة الإنجليزية لغة أجنبية لدى طلاب الفرقة الأولى بكلية السياحة والفنادق، جامعة مدينة السادات.

الكلمات المفتاحية: تعزيز المدخلات، النصوص الإلكترونية، كفاءة التّضام المُعْجَمي باللغة الإنجليزية لغة أجنبية، طلاب الجامعة.


1. Introduction:
The importance of vocabulary acquisition has always been recognized, although, at times, vocabulary was treated as separate from other skills and grammar. However, the natural and communicative approaches emphasized the importance of vocabulary development which resulted in more interest in vocabulary teaching (Deveci, 1914). Vocabulary refers to "the words of a language, including single items and phrases or chunks of several words which convey a particular meaning, the way individual words do" (Lessard-Clouston, 1913, p. 1). It is believed that choosing words carefully in certain situations is more important than choosing grammatical structures (Harmer, 1912). Without a wide range of vocabulary, grammar does not help students much. Though, having such a wide range of vocabulary per se is not adequate because a single word rarely stands alone. Therefore, language teachers need to make sure that their students know which word goes with which other word(s), and that necessitates that collocations be taught. Working with meaningful phrases can help improve students' comprehension. Moreover, it can help students acquire the language more quickly and competently (Deveci, 1914).

The field of second/foreign language acquisition (SLA/FLA) has witnessed an increased interest in the idea that drawing students' attention to the formal features of SL/FL input is beneficial, and in some cases necessary, for optimal SL/FL development (Sharwood Smith, 1991, 1993). This interest has challenged researchers to develop instructional techniques that enhance input. The idea behind using such enhanced input is that by making formal aspects of SL/FL input more salient, students will be more likely to notice targeted forms, resulting in more intake, the subset of the input data that becomes available for further language processing (Fahim & Vaezi, 2011).

One of the pedagogical approaches which focuses on the concepts of noticing and consciousness-raising is the focus-on-form (FonF) approach. It aims to integrate attention to both meaning and form in SL/FL learning. It tries to ensure the provision of plenty of comprehensible input and interaction in SL/FL learning while at the same time incorporating grammar or vocabulary learning in supplementary and often incidental ways. Instead of having an extended
separate grammar or vocabulary explanation and exercises, FonF tries to integrate attention to form and meaning by drawing students' attention to form in the course of communicative language use. One of the implicit methods of FonF is input enhancement - typographical/visual (e.g., enlargement, bolding, italicizing and underlining) or intonational/phonologic highlighting of the target form(s) in the input (Izumi, 2013).

Correspondingly, there has been an increased interest in corpus linguistics together with an amplified interest in using corpora for language teaching and SLA/FLA research (Romer, 2013). According to Richards and Schmidt (2011, p. 138), corpus linguistics is "an approach to investigating language structure and use through the analysis of large databases of real language examples stored on computer". Issues amenable to corpus linguistics include the meanings of words across registers, the distribution and function of grammatical forms and categories, the investigation of lexico-grammatical associations (associations of specific words with particular grammatical constructions), the study of discourse characteristics, register variation, and (when learner corpora are available) issues in language acquisition and development.

With the support of the right tools and analytic techniques, corpus-based instruction can help students recognize and identify patterns in language use that are different from how they intuitively use the foreign language and even from how the language is presented and taught in their textbooks. Thus, students can become more target-like in their written and oral production. Moreover, corpus-based instruction is especially valuable in English for specific purposes (ESP) contexts because the corpus could probably comprise authentic texts centered on one theme, which would allow students to develop their vocabulary knowledge and use as well as awareness of academic language use patterns in a specialized content area or academic field (Salsbury & Crummer, 2018). Therefore, using input enhancement plus online corpora (whose combined effect has not been investigated before as to the researcher's knowledge) could prove highly useful to enhance EFL collocational competence of university students majoring in Tourism and Hotels.
\[\textbf{1.1 Context of the Problem:}\]

Students at the Faculty of Tourism and Hotels, University of Sadat City, are required to study ESP two semesters a year for four years. It has been noticed that they lack EFL collocational competence. They often encounter difficulties in using collocations in both spoken and written discourses as they tend to use lexical items that do not match correctly or sound natural. For example, they frequently use \textit{tourist brochures} instead of \textit{travel brochures}, \textit{cheap accommodation} instead of \textit{budget accommodation}, \textit{fast snack} instead of \textit{quick snack}, \textit{big meal} instead of \textit{substantial meal} and \textit{completely booked} instead of \textit{fully booked}. This inefficiency in EFL collocational competence of Egyptian Tourism and Hotels students may be due to their reliance on the understanding of individual vocabulary words rather than word combinations (Kamal, 2014). Moreover, most students tend to follow the prescribed rules written in traditional grammar textbooks, and since collocations represent a missing component in such textbooks, students seem to be unaware of their importance or the importance of developing an intuition unto using them. (Abdella, 2015).

To document the problem, a pilot study was conducted. It comprised three parts. The first part was a semi-structured interview with English language instructors \((n = 5)\) and specialized staff members and assistants \((n = 14)\) from the Faculty of Tourism and Hotels, University of Sadat City, in the middle of the second semester of the 2012-2013 academic year. Results revealed that English collocations- particularly the ones related to the students' field of study- are important and needed for Tourism and Hotels students to learn in order to succeed in their future study and career, which are overlooked in their current ESP courses. The second part was a needs analysis questionnaire. The respondents were 111 first year students enrolled at the Faculty of Tourism and Hotels, University of Sadat City, in the middle of the second semester of the 2017-2018 academic year. The questionnaire posed one question: "\textit{How important are English collocations to you in order to function effectively in your future study and career?}" They had to tick one choice from the five-point Likert scale (very important, important, somewhat important, of little importance and unimportant). The majority of students \((85\%)\) marked English collocations as very important \((51\%)\) and important \((35\%)\). Only \(14\%\) of the students judged it as somewhat important. The
third part was an EFL collocational competence test administered to the same students who were required to answer multiple-choice and completion questions. Results revealed that students lacked EFL collocational competence where of them were poor users of English collocations.

1. **Statement of the Problem:**
   The problem of the present study was identified in first year Tourism and Hotels students' weakness in EFL collocational competence. Thus, the present study attempted to help such students become collocation-competent users through employing input enhancement and online corpora.

1. **Questions:**
The present study attempted to answer the following questions:
1. To what extent do first year Tourism and Hotels students master EFL collocational competence?
2. How can input enhancement and online corpora be used to develop first year Tourism and Hotels students' EFL collocational competence?
3. To what extent does using input enhancement and online corpora affect the development of first year Tourism and Hotels students' EFL collocational competence?

1. **Hypothesis of the Study:**
   There would be a statistically significant difference between the mean score of the control group and that of the experimental group in EFL collocational competence on the post administration of the EFL collocational competence test in favour of the experimental group.

1. **Significance:**
The present study is significant for:
1. **Students:** as it helps in developing their EFL collocational competence.
2. **Teachers:** as it helps in providing them with two methods (input enhancement and online corpora) that might help develop their students' EFL collocational competence.
Curriculum planners: as it draws their attention to the efficacy of input enhancement and online corpora in EFL collocational competence and incorporating them in the EFL curriculum.

7. Terminology:

7.1 EFL Collocational Competence:
In the present study, EFL collocational competence is operationally defined as first year Tourism and Hotels students' ability to understand and correctly use different types of collocations related to their field of study.

7.2 Input Enhancement:
In the present study, visual (also called typographical or textual) input enhancement is used. It is operationally defined as a method that attempts to make collocations more salient/noticeable in the assigned reading materials using boldfacing in order to develop first year Tourism and Hotels students' collocational competence.

7.3 Online Corpora:
In the present study, online corpora are operationally defined as collections of naturally occurring written texts collected, organized and stored in the online tool Corpus of Contemporary American English (COCA) for easy access by first year Tourism and Hotels students who are required to perform some corpus-based activities using such tool to develop their collocational competence.

7. Delimitations:
The present study was delimited to:
7.1 Fifty first year students enrolled at the Faculty of Tourism and Hotels, University of Sadat City.
7.2 The first semester of the 9118-9119 academic year.
7.3 Visual input enhancement and the online tool COCA.

7. Literature Review and Related Studies:
7.1 Collocational Competence:
Richards and Schmidt (9111, p. 92) defined collocation as "the way in which words are used together regularly" or "the restrictions on how
words can be used together, for example which prepositions are used with particular verbs, or which verbs and nouns are used together" (e.g. the verb *perform* is used with *operation*, but not with *discussion*). For Wales (2011, p. 49), the term refers to "the habitual or expected co-occurrence of words, a characteristic feature of lexical behaviour in language, testifying to its predictability as well as its idiomaticity". Brown and Miller (2013, p. 86) delineated collocation as "the relation between individual lexical words such that they frequently occur together or one requires the other, e.g. *brand* and *new* in *brand new, staple* and *diet* in *staple diet*". Regarding collocational competence, Farrokh (2019, p. 56) defined it as "the ability to comprehend and produce collocations". In the same way, Shammas (2013, p. 112) viewed it as "EFL students' comprehension and use of collocations". According to Kušota (2011, p. iv), it refers to "the ability to recognize, understand and use collocations".

To classify collocations, McCarthy and O'Dell (2011) stated that some collocations are fixed, or very strong, for example *take a photo*, where no word other than *take* collocates with *photo* to give the same meaning. Some collocations are more open, where several different words may be used to give a similar meaning, for example *keep to*/*stick to* the *rules*. In addition, Hill (2009) along with McCarthy and O'Dell (2011) documented that collocations fall into different categories: (a) adjective-noun (*a key issue*), (b) noun-noun (*a pocket calculator*), (c) verb-adjective-noun (*learn a foreign language*), (d) verb-adverb (*whispered softly*), (e) adverb-verb (*half understand*), (f) adverb-adjective (*happily married*) and (g) verb-preposition-noun (*burst into tears*). Moreover, collocational knowledge can be classified into receptive and productive knowledge (Milton, 2009). Receptive knowledge refers to collocations that can be distinguished during listening or reading whereas productive knowledge means using collocations in speaking and writing (Gholami & Farvardin, 2011). Deveci (2014) mentioned the following collocation-related problems encountered by EFL students receiving regular instruction based on rote learning where they memorize lists of words in isolation: a. Students may have intralingual problems. For example, instead of *many thanks*, they might incorrectly use *several thanks*. 
b. Students may make negative transfer from their mother tongue. For example, some students tend to say *become lovers* instead of *fall in love.*

c. Students may look for general rules for collocations that do not work for all collocations. For instance, they might overgeneralize rules of collocation, e.g. the use of prepositions in phrasal verbs. They could think that *put off your coat* is the opposite of *put on your coat.*

d. When students learn words through definitions or in isolation, their chances of using appropriate collocations or remembering the words decrease.

e. Students may fail to make sense of an idiom. To demonstrate, the English idiom *It is raining cats and dogs* does not make sense to EFL students because this idiom does not exist in their culture.

f. When students read texts, they may not recognize collocations as meaningful phrases, which would inhibit their understanding of the text (pp. 12-18).

Hill (111) recommended that the following topics be taken into consideration when teaching collocations:

a. **Making students aware of collocations:** Students need to know that learning collocations is crucial for learning English, and noticing them is an important stage in learning.

b. **Teaching individual collocations:** Collocations should be presented as individual words would be presented. At advanced levels, when students learn less common vocabulary items, they need to be made aware that some words are used in a very restricted number of collocations. Students also need to know how to use new vocabulary items, which makes it mandatory to know about their collocational field and contexts in which they are used.

c. **Storing collocations:** Students need to have an organized vocabulary journal to record collocations. They can organize their journals in various ways: grammatically, by common key word, by topic, etc. They can also make use of tables or spider-graps, which work best with visual learners.

Learning collocations is important to EFL students because they can: (a) give students the most natural way to say something (*smoking is...*)
strictly forbidden is more natural than smoking is strongly forbidden, (b) give students alternative ways of saying something, which may be more expressive or more precise (instead of saying It was very cold and very dark, students can say It was bitterly cold and pitch dark and (c) improve students' style in writing (instead of writing poverty causes crime, students can write poverty breeds crime). Students may not need or want to use these in informal conversations, but in writing they can give their texts more variety and make them read better (McCarthy & O'Dell, 2014). According to Deveci (2015), when EFL students use collocations, they will be better understood. Native speakers unconsciously predict what is going to be said based on the use of phrases. If an FL speaker uses frequently-used patterns, it will be easier for native speakers to guess what the FL speaker is saying and may help compensate for other language issues such as pronunciation. When students write and speak, if they use collocations central to their topic, their readers and listeners are more likely to understand their messages.

Furthermore, some studies proved the positive effect of learning collocations on promoting EFL students' language proficiency (Keshavarz & Taherian, 2018; Rahimi & Momeni, 2017) and retention (Akpinar & Bardakci, 2015). Also, quite a few investigations tackled the effect of learning collocations on developing EFL students' vocabulary acquisition (Kasraian & Pakfetrat, 2016; Reza & Ashouri, 2016), listening comprehension (Intamanjana, Wijaya & Regina, 2015) and speaking ability (Attar & Allami, 2013; Shooshtari & Karami, 2013). Besides, several examinations dealt with learning collocations and its effectiveness in improving reading comprehension (Hsu, 2015; Teker, 2013) and writing performance (Adelian, Adelian & Adelian, 2017; Adelian, Nemati & Fumani, 2015; Adhami-O'Brien, 2014; Benayad, 2017; Nizonkiza, 2017).

**Recent Research on Collocational Competence:**
To the researcher's knowledge, few studies were conducted to develop students' EFL collocational competence (Alibakhshi & Mohammadi, 2016; Asaei & Rezvani, 2015; Gheisari, Yousofi & Mok, 2016; Kamal, 2014; Mohammadnejad, 2018; Murnani & Salehi, 2017). Details of such studies are described below.
Kamal (2012) investigated the effect of explicit and implicit instruction on the acquisition of verb-noun collocations among 41 intermediate-level Egyptian EFL students and on their attitudes toward learning collocations both explicitly and implicitly. Two experimental groups composed of 41 participants each were used. One group was taught using the explicit method and the other was taught using the implicit method. A post-test to assess both the receptive and productive acquisition of the target collocations and an attitude survey were administered after the experiment. Results indicated that the students who learned collocations explicitly significantly improved their receptive and productive knowledge of collocations. Results also revealed the groups' positive attitudes toward learning collocations.

Similarly, Asaei and Rezvani (2013) measured the effects of explicit and implicit instruction on Iranian EFL students' use of collocations in writing. The participants were selected from three intact classes consisting of 45 adult Iranian advanced EFL students. Two intact classes were selected as the experimental groups (the explicit group and the implicit group) and one other class as the control one. A pre-post test was administered before and after experimentation. Results revealed that the group receiving the explicit method of teaching collocations outperformed the other two groups in using collocations in sentence writing.

Alibakhshi and Mohammadi's (2014) study aimed at investigating whether synchronous and asynchronous multimedia components: text and text with added graphics had any effects on 151 EFL Iranian pre-intermediate students' learning of collocations. Students were divided into six groups: asynchronous simple text (Group A), synchronous simple text (Group B), synchronous simple text with added graphics (Group C), asynchronous simple text with added graphics (Group D), paper text (Group E) and paper text with added graphics (Group F). Results showed that computerized mediated instruction was more effective than non-computerized instruction. Also, synchronous computerized instruction was more effective than asynchronous computerized instruction. Moreover, presentation through text with added graphics was more effective than presentation through simple text.
Gheisari et al. (2016) aimed to find which kind of instruction is more effective in developing the collocational knowledge of 21 Iranian pre-university students. Students were randomly distributed into three groups: an explicit instruction group, an implicit instruction group and a control one with each containing 31 students. The participants were given three sets of multiple-choice questions as pre-, post- and delayed post-test assessment. Results indicated that both the implicit and explicit methods of teaching collocations were effective in developing collocational knowledge in both the post-test and the delayed post-test. However, the explicit group outperformed the implicit one in both the post-test and the delayed post-test.

Murnani and Salehi (2016) investigated the impact of electronic dictionaries on the learning and long-term retention of English collocations of 111 Iranian intermediate EFL students. The participants were assigned into two groups: an experimental group and a control one. The experimental group used an electronic collocation dictionary to find meaning and definition of the new taught collocations, while the control group recognized collocations through their prior knowledge. Each group acquired a pre-test in one form (fill in the blank), an immediate post-test and a delayed post-test. Results showed that the experimental group students significantly outperformed the control group students due to using electronic dictionaries. However, such dictionaries did not increase students' long-term retention of collocations.

Mohammadnejad (2018) examined the effect of reading short stories on learning collocations among EFL Iranian pre-intermediate students. Participants were 54 students chosen from Simin Language Institute in Sari. They were placed into two groups: an experimental group taught using three-chapter story books with different stories, pictures and reading comprehension exercises and a control one taught using regular instruction. Data were collected through a pre-post collocation test. Results showed that the experimental group outperformed the control group on the measure which indicated that reading short stories had a statistically significant effect on EFL learners' collocation learning.

4. 4 Input Enhancement:

According to VanPatten and Benati (2016), input comprises the language that SL/FL learners are exposed to in a communicative context.
It is the language that learners hear or read and process for its message or meaning. As such, it is different from the language that teachers might provide as models or examples of how to do something. It is different from the language that learners process purely for its formal features. It is also different from output, the language that learners produce. Two kinds of input have been discussed: (a) comprehensible input which is the language that learners can readily understand for its meaning and (b) modified input which is the language that is adjusted so that learners can better comprehend the speaker's/writer's meaning. Moreover, input, as stated by them, is:

primary linguistic data because all current linguistic and psycholinguistic theories of acquisition believe that input is the data source for acquisition as opposed to practice, grammar explanations, feedback and negative evidence. Thus, learners' developing linguistic systems are a result of input interacting with learners' internal mechanisms used for processing and storing language (pp. 94-95).

The term input enhancement was proposed by Sharwood Smith (1991, 1993) to refer to "a pedagogic strategy whereby the input to the SL/FL learner is highlighted for its certain features so that they become perceptually salient and hence more noticeable" (Han, 2013, p. 313). Likewise, Gass and Selinker (2018, p. 518) defined input enhancement as "a technique that attempts to make parts of the input salient". According to VanPatten and Benati (2011, p. 95), it is "a pedagogical tool meant to assist learners' development regarding formal properties of language. It entails any effort that makes formal features of the language more salient to learners".

The proposal of input enhancement was, theoretically, a complement to Krashen's (1982) input hypothesis, which claims that consistent exposure to abundant comprehensible input is all that is needed for SL/FL acquisition to take place. According to the input hypothesis, SLA/FLA should largely happen implicitly. It rejects any significant role played by explicit manipulation of the learner's consciousness through formal instruction or error correction. While some researchers had no objection to the elevated status of comprehensible input, they disclaimed...
it as being a necessary and sufficient condition for SL/FL learning, pointing out its lack of validity. The outcome of this debate was a revived interest in the role of consciousness in SL/FL learning and the subsequent conception that consciousness can help where implicit learning fails (Han, 1913; VanPatten & Benati, 2010).

The inception of input enhancement had been preceded by another concept which was consciousness-raising (Sharwood Smith, 1981) which posits that external manipulation of learner awareness will result in the learner restructuring his/her mental representations, and, in turn, in language acquisition. However, this idea was quickly abandoned for a feasible reason. Externally drawing attention, as Sharwood Smith (1981) later explains, is no guarantee for the internalization of the new targeted forms. External manipulation may at best establish a condition for noticing to occur, but whether or not noticing will subsequently occur resides completely with the learner (Han, 1913). Thus, the input enhancement proposal emphasizes what is done externally. It is teachers and/or materials that enhance input. It is not an activity that originates from the learner (Han, 1913; VanPatten & Benati, 2010).

A third construct related to input enhancement was Schmidt's noticing hypothesis (1981, 1981, 1981). He assumed that in order for input to become intake for learning, learners need to "attend to and notice linguistic features of the input" (Schmidt, 1981, p. 3). That is, in order to process input sufficiently to integrate new linguistic forms with existing knowledge (intake), there must be a degree of conscious registration of that input. It is only what the learner consciously notices about the input that holds potential for learning. He emphasized that attention to input is not simply global; learning requires attention to the specific properties of language features in the input (Philp, 1913).

Input enhancement comes in two varieties: positive and negative. Positive input enhancement involves manipulating input in certain ways to make formal features more obvious to students. Such manipulations include louder voice or increased acoustic stress on something while the teacher is talking (oral input); bolding or highlighting particular features as in visual input enhancement (among other manipulations, for example adding the words' semantic features through providing SL/FL glosses
and paraphrasing as in semantic input enhancement and offering artificial increase/repetition of the targeted forms in the input as in input flooding) would be used in written input. Negative input enhancement is basically feedback. The teacher draws the student's attention to an incorrect production in order to signal that the learner has violated the target rules. Manipulations of positive and negative input enhancement can be employed singularly (simple) or in combination (compound) to develop greater or lesser salience (Izumi, ၁၁၃; Rott, ၁၁၄; VanPatten & Benati, ၁၁၅).

Han, Park and Combs (၁၁၈) concluded the following perceptions emanating from studies conducted on input enhancement and its efficacy:

- Simple enhancement is capable of inducing learner noticing of externally enhanced forms in meaning-bearing input.
- Whether or not this leads to acquisition depends largely on whether the learner has prior knowledge of the target form.
- Learners may automatically notice forms that are meaningful.
- Simple enhancement is more likely to induce learner noticing of the target form when sequential to comprehension than when it is concurrent with comprehension.
- Simple enhancement of a meaningful form contributes to comprehension.
- Simple enhancement of a non-meaningful form does not hurt comprehension.
- Simple enhancement is more effective if it draws focal rather than peripheral attention.
- Compound enhancement is more likely to induce deeper cognitive processing than simple enhancement, possibly to the extent of engendering overlearning (p. ၁၁၉).

Recent Research on Input Enhancement:

Some studies were conducted to investigate the effects of using input enhancement on students' grammar and vocabulary development. Most research in this area revolved around grammar learning (Abbasian & Yekani, ၁၁၄; Al-Jamal, ၁၁၄; Fatemipour & Moharamzadeh, ၁၁၅; Seyedtajaddini, ၁၁၅). Specific grammatical structures were also attempted such as passive forms (Abadikhah & Shahriyarpoor, ၁၁၆;

However, vocabulary acquisition (Fahim & Seyyedrezaei, 2014; Ghafouri & Masoomi, 2014) and intake (Nahavandi & Mukundan, 2014) received little attention. To the researcher's knowledge, a limited number of studies were conducted with respect to the effect of input enhancement on collocational competence (Boers, Demechleer, He, Deconinck, Stengers & Eyckmans, 2014; Gholami & Farvardin, 2014; Naseri & khodabandeh, 2014; Szudarski & Carter, 2014; Zarei, Esfandiari & Ne'man, 2014). Different procedures of such studies are detailed below.

Zarei, Esfandiari and Ne'man (2014) investigated the effects of three common techniques of input enhancement, namely visual input enhancement, semantic input enhancement and input flooding on Iranian students' EFL comprehension and production of lexical collocations. Participants were 81 students studying English in two private institutes in Karaj. After taking a collocation pre-test, the participants (in three experimental groups and one control group) received 11 reading passages over 11 sessions in which lexical collocations were presented in the aforesaid conditions. At the end of the experiment, they took two post-tests of comprehension and production of collocations. Results showed that the participants of the three experimental groups outperformed the control one (the group with unenhanced materials). However, there were no significant differences among the effects of the three techniques on the comprehension and production of lexical collocations.

Szudarski and Carter (2014) explored EFL students' acquisition of verb-noun and adjective-noun collocations following two kinds of instruction: input flood only and input flood plus input enhancement (in
Participants \((N = 41)\) were secondary school Polish students who were recruited from three intact classes which formed two experimental groups \((13\text{ participants each})\) and a control one \((15\text{ participants})\). Students were exposed to infrequent collocations embedded in stories that were read during three consecutive weeks. Their collocational competence was subsequently assessed in a battery of delayed tests tapping into productive and receptive levels of collocational mastery. Results showed that the Input flood plus input enhancement group outperformed the input flood only group.

Boers et al. \((9112)\) examined the effect of typographic enhancement on EFL Belgian students' intake of multiword units (verb-noun collocations, adjective-noun collocations, nominal compounds and prepositional phrases) from reading. Students read texts in one of three versions: (a) with many multiword units underlined, (b) with half of the multiword units underlined and (c) without any underlining. The experiment was conducted twice. Participants of the first trial \((N = 38)\) were nearing the end of their first term of training at university. Participants of the second trial \((N = 43)\) were English majors nearing the end of the second term of their third year of training at university. In both trials, the participants were randomly assigned to one of the three reading conditions. Students were subsequently asked to identify the multiword units they remembered encountering in the texts using the prepared multiword units recognition tests. It was found that enhanced multiword units were remembered better than unenhanced ones.

Gholami and Farvardin \((9112)\) compared the effects of input-based and output-based instructions on Iranian EFL students' productive knowledge of collocations. Eighty senior high school students from three intact classes at Tali-e High School in Ahvaz, were selected. Each class was assigned to a control group \((n = 98)\) and two experimental groups including the input group \((n = 92)\) and the output group \((n = 95)\). A pre-test was administered before experimentation during which one experimental group received input-based instruction, i.e. input flood plus input enhancement (underlining and boldfacing). The second experimental group received output-based instruction. The control group received traditional treatment (translating FL collocations using dictionaries). After experimentation, an immediate post-test and a
delayed post-test were given. Results revealed that both input and output groups outperformed the control group. However, there were no significant differences between the input and output groups on the post-tests.

Recently, Naseri and Khodabandeh (2019) investigated the impact of audio-visual input enhancement on improving EFL students' collocation learning and their accuracy concerning collocation use in narrative writing. Also, it compared the impact and efficiency of audio-visual input enhancement in two learning contexts, namely traditional and mobile learning contexts. Participants were 19 intermediate EFL students who were randomly divided into four groups, two experimental and two control groups. A collocation test and a paragraph writing test were used as pre-post tests. The experimental groups received enhanced target collocations through input enhancement techniques while in the control groups the unenhanced collocations were taught through conventional instruction. Results revealed that the audio-visual input enhancement techniques positively affected EFL students' collocation learning and enhanced their accuracy concerning collocation use in narrative writing. Results also showed that, in comparison to the traditional learning context, audio-visual input enhancement techniques were significantly effective in the mobile learning context in terms of collocation learning.

1. Online Corpora:

According to Crystal (2018, p. 111), a corpus, plural corpora or corpuses, is "a collection of linguistic data, either written texts or a transcription of recorded speech, which can be used as a starting point of linguistic description or as a means of verifying hypotheses about a language". For Reppen (1993, p. 93), "a corpus is a large, principled collection of naturally occurring texts (written or spoken) stored electronically". Similarly, Romer (1997, p. 134) defined a corpus as "a systematic collection of texts from spoken and/or written sources (nowadays in electronic format" that is used in language teaching". Comprehensively, Richards and Schmidt (2001), delineated a corpus as:

a collection of naturally occurring samples of language which have been collected and collated for easy access by researchers
and materials developers who want to know how words and other linguistic items are actually used. A corpus may vary from a few sentences to a set of written texts or recordings. In language analysis, corpuses usually consist of a relatively large, planned collection of texts or parts of texts, stored and accessed by computer (p. 137).

A corpus is designed to represent different types of language use, e.g. casual conversation, ESP texts and business letters. As Richards and Schmidt (1911) pointed out, a number of different types of corpuses may be distinguished:

a. **Specialized corpus**: a corpus of texts of a particular type, such as academic articles, student writing, etc.

b. **General corpus or reference corpus**: a large collection of many different types of texts, often used to produce reference materials for language learning (e.g. dictionaries) or used as a base-line for comparison with specialized corpora

c. **Comparable corpora**: two or more corpora in different languages or language varieties containing the same kinds and amounts of texts, to enable differences or equivalences to be compared.

d. **Learner corpus**: a collection of texts or language samples produced by language learners (pp. 137-138).

According to Romer (1913), a growing number of available software tools, usually referred to as "concordancers" or "concordance programs", can provide easy electronic access to the texts stored in a corpus. They offer a range of functions to highlight interesting aspects about the language captured in the corpus and enable the user to carry out the steps of corpus analysis. These tools can be divided into two categories: offline and online. As for the offline tools, the user installs and runs them on his/her local computer (e.g. AntConc, Collocate, ConcGram, Concordance, kfNgram, MonoConc Pro and WordSmith Tools). The online tools, which are accessible through the internet, include the British National Corpus (BNC), COCA, COBUILD Concordance and Collocations Sampler, Just the Word, Michigan Corpus of Academic Spoken English (MICASE) and Phrases in English (PIE).
Without such tools, corpora would be of no use to the analyst other than being electronic storehouses of texts that could be read on screen (or on paper printouts) in the normal linear fashion. Corpus analysis could be regarded as "corpus transformation" in that words in the corpus texts are stored, rearranged and highlighted in different ways, depending on the analytic step that is applied. The resulting text transformations enable insights into the type of language under analysis that mere input files could not provide. The most important steps in corpus analysis are: (a) creating a frequency word list, (b) creating a keyword list, (c) compiling and sorting a concordance, (d) creating a distribution plot for a word or phrase, (e) extracting collocates and (f) extracting fixed and variable phraseological items (Romer, 2013).

Corpora can be adapted both directly and indirectly in language teaching. Using corpora to make discoveries about language by students, is an example of a direct application of corpora. However, utilizing corpus data in lexicography, which results in preparing more accurate dictionaries and course materials to be used by students in their classrooms, is an example of an indirect application (Wahid, 2011). Moreover, corpora can be used directly by learners and teachers for the purpose of getting familiar with the use of language in the real world. If corpora are used indirectly, it means that they help teachers in making decisions about what materials to teach and when to teach them. Thus, the direct use of corpus focuses on the teachers and learners, whereas the indirect use of it focuses more on syllabus design and linguistic materials for the purpose of teaching (Talai & Fotovatnia, 2012).

In the present study, corpora are used directly due to various reasons. In the direct approach instead of depending on researchers as the providers of linguistic materials, language learners and teachers themselves study the corpus in order to discover language patterns, word meanings, etc. Learners encounter the linguistic data directly since they are regarded as linguistic researchers or "language detectives". This method, in which there is an interaction between corpora and students, is known as data-driven learning (DDL) (Talai & Fotovatnia, 2012).

Richards and Schmidt (2011, p. 155) defined DDL as "learning that is informed by authentic real-life language use based on information
derived from a corpus". According to DDL, learners should be guided to discover the foreign language, much in the same way as corpus linguists discover facts of their own language that had previously gone unnoticed. Shifting the emphasis from deductive to inductive learning practices has widespread effects on: (a) the teacher, who becomes a coordinator of research, or facilitator; (b) the learner, who learns how to learn through exercises that involve the observation and interpretation of patterns of use and (c) the role of pedagogic grammars, whose level of abstraction often works against their effectiveness (Sinclair, 9114).

Whilst DDL approach focuses on the role of corpus use in the development of learning capacities and in the establishment of a non-authoritarian learning environment, a number of scholars suggested that concordancing in particular may prove unique in the acquisition and restructuring of competence. Language learning may be viewed as an inductive process in which meaning and form come to be associated. This view agrees well with the cognitive psychology work on memory known as schema theory (Sinclair, 9114).

Language learning in a schema perspective is a process that involves the development or adjustment of real-world knowledge structures or schemata appropriate to the FL culture, and the matching of these with relevant pragmatic and linguistic schemata. By providing access to authentic interaction (both written and spoken), corpora offer an ideal instrument to observe and acquire socially-established form/meaning pairings. In other words, they allow learners to observe what is typically said in given circumstances, and how it is typically said, and to relate the two. Moreover, schema-meaning pairings are formed on the basis of repeated experiences of instances of language use. A concordancer may shorten this lengthy process since it makes the patterns stand out clearly, by concentrating and manipulating instances of a language phenomenon (Sinclair, 9114).

Recent Research on Online Corpora:
Few studies were conducted to investigate the effects of using online corpora and DDL on EFL students' acquisition of language skills and aspects of knowledge such as grammar learning (Behzadian, 9117;

Abdellah (2015) designed a training program based on the practices of the lexical approach through corpus-based activities to investigate its effect on developing senior English Language majors' use of collocations at two Egyptian universities. Participants were selected and assigned into two groups: an experimental group (46 students enrolled at the Faculty of Education, Sohag University) which were taught using the suggested program, and a control one (51 students enrolled at Qena Faculty of Education, South Valley University) which received regular instruction. A pre-post test was developed and administered before and after experimentation. Results showed that the explicit teaching of collocations through corpus-based activities helped students get an intuition unto the right collocates and significantly raised their scores on the post-test.

Uçar and Yukselir (2015) aimed to reveal the impacts of corpus-based activities on verb-noun collocation learning in EFL classes. Participants (N = 31) were selected and divided into two groups: an experimental group and control one- each of which consisted of 15 students. They were preparatory class students at the School of Foreign Languages, Osmaniye Korkut Ata University. A pre-post test was administered before and after experimentation during which the experimental group was taught verb-noun collocations through corpus-based materials taken from COCA and the control group was taught through the conventional method. Results demonstrated that corpus-based activities had a significant impact on verb-noun collocations.

Foomani and Khalaji (2016) investigated the effect of corpus-based learning on verb-noun collocations. Participants were 45 upper-
intermediate students who were randomly divided into two groups: an experimental group \((n = 94)\) which was taught through the corpus-based method via the Collin Collocation Dictionary and a control group \((n = 93)\) which was taught through the traditional method. A pre-test was conducted to both groups before the experiment. Next, in four subsequent weeks, the experimental group was provided with 94 concordance collocations and was required to identify the collocations and mis-collocations while the control group received traditional collocation training through texts. After the experiment, a post-test and a writing task were administered to compare students' collocation learning and their accurate application of collocations in the writing task. Results indicated the experimental group's advantage in collocation acquisition as well as their application in writing.

Rasooyar and Salehi's \((9116)\) study focused on uncovering the effect of corpus-based instruction on EFL students' learning of non-congruent collocations. Participants were 61 adult EFL intermediate students enrolled at Iran Language Institute. They were divided into two groups: an experimental group \((n = 31)\) which experienced learning collocations through corpus-based materials and a control one \((n = 31)\) which experienced collocation learning through the conventional method. Students' attitudes toward corpus-based instruction were also investigated through semi-structured interviews. Results of the non-congruent collocations pre-post tests showed that corpus-based instruction had the same effect as the traditional instruction on EFL students' learning of non-congruent collocations. However, students had positive attitudes toward corpus-based instruction and preferred it over the traditional way of teaching collocations.

Li \((9112)\) explored the role of direct corpus use in students' collocational competence in academic writing. An experiment was conducted between two groups of Chinese postgraduates. It was embedded in a regular four-month linguistics course, where a corpus-assisted method (with BNC and COCA) was used for the experimental group and a traditional method was used for the control group. The English essays written by these two groups of students from different time periods (before, immediately after, and two months after the course) were analyzed regarding the students' collocational use—particularly,
verb-preposition collocations. Results revealed that while both groups showed improvement in their academic writing, the students in the experimental group displayed a significant development in the use of collocations, including a higher rate of accuracy and an increased use of academic collocations and fixed phraseological items.

Recently, Kartal and Yangineksi (2018) examined the effects of utilizing COCA on university EFL Turkish student-teachers' learning and production of verb-noun collocations. Two classes (participants each) participated in experimental and control groups. A collocation knowledge test was administered as a pre-post test. Also, student-teachers' writings before and after the implementation were investigated for tracking the production of collocations. Besides, participants' opinions about the use of corpus tools were collected via a survey. Though the participants in the experimental group performed slightly better than the ones in the control group on the collocation knowledge test, this difference was found to be statistically non-significant. Still, there was a statistically significant difference between the groups in terms of collocation production. Most of the student-teachers reported that corpus tools were very helpful in learning collocations.

5. Method:
5.1 Participants:
Participants of the present study included students chosen at random from first year students enrolled at the Faculty of Tourism and Hotels, University of Sadat City, during the first semester of the 2018-2019 academic year. They were divided into two groups: an experimental group (n = 18) which was taught using input enhancement and online corpora and a control one (n = 18) which received regular instruction. The age of those participants ranged from 18 to 19 years old. All students of the experimental group were computer literate and had e-mail accounts, smart phones, PCs/Laptops and Internet access.

Before experimentation, participants of both groups were pre-tested using the prepared EFL collocational competence test to make sure that both groups are identical in their entry levels of EFL collocational competence. Students' scores on the pre-test did not yield significant
differences between the control group and the experimental one. Table 1 shows the $t$-value of the control and experimental groups on the pre-test.

**Table 1. The $t$-value of the Control and Experimental Groups on the Pre-test**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Group</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>$t$</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EFL Collocational Competence</td>
<td>Control</td>
<td>20</td>
<td>19.72</td>
<td>3.45</td>
<td>-1.4622</td>
<td>48</td>
<td>No sig. &gt; 0.01</td>
</tr>
<tr>
<td></td>
<td>Exp.</td>
<td>20</td>
<td>21.44</td>
<td>2.94</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1 demonstrates that no statistically significant difference existed between the mean score of the control group and that of the experimental group in EFL collocational competence on the pre-test of EFL collocational competence ($t = -1.4622$, $p > 0.01$). This ensures that both groups were fairly equivalent in their entry levels of EFL collocational competence before the experiment.

**5. Design:**

The present study is a pre-post test quasi-experimental study. Two groups were used: an experimental group and a control one. Both groups were tested before and after intervention.

**5. Variables:**

Independent variable: using input enhancement and online corpora.
Dependent variable: EFL collocational competence.

**5. Instruments:**

5.4. **A Needs Analysis Questionnaire (NAQ):**

**5.4.1. Aim of the NAQ:**

The needs analysis questionnaire was developed to determine the most important EFL collocations required for first year Tourism and Hotels students and to construct the EFL collocational competence test.

**5.4.1.1 Description of the NAQ:**

For learners with special purposes, there is specialized vocabulary that should be taught and dealt with in much the same way as high-frequency vocabulary because it is important for such users in their...
future careers (Nation, 2013). The NAQ contained 191 English collocations related to the field of Tourism and Hotels. These collocations were selected from McCarthy and O'Dell's *English Collocations in Use: How Words Work together for Fluent and Natural English (Intermediate)* (2017). The questionnaire posed one question: “How important are the following English collocations to first year students in order to be included in the English language course to develop EFL collocational competence?” The respondents were asked to tick one choice from the five-point Likert scale (very important, important, somewhat important, of little importance and unimportant) to determine the importance of each collocation (See Appendix A).

### Validity of the NAQ:

The NAQ was submitted to a panel of jurors to determine the appropriateness of the suggested collocations to first year Tourism and Hotels students. They indicated that the questionnaire was valid, having made the few modifications they required.

### Administering the NAQ:

The NAQ was administered to English language instructors (*n* = 5), specialized staff members and assistants (*n* = 39) and first year students (*n* = 191) from the Faculty of Tourism and Hotels, University of Sadat City, at the end of the second semester of the 2017-2018 academic year. After administering the questionnaire, the researcher calculated the frequencies and percentages of each collocation in light of the responses provided. Seventy-four collocations were considered the most required for first year Tourism and Hotels students (See Appendix B).

### An EFL Collocational Competence Test (CCT):

#### Aim of the CCT:

The EFL collocational competence test was used as a pre-post test. It was used as a pre-test to measure the entry level of students in EFL collocational competence. As a post-test, it was used to investigate the effect of using input enhancement plus online corpora.

#### Description of the CCT:

For constructing the CCT, the researcher selected a series of short paragraphs, dialogues and sentences from McCarthy and O'Dell's *English
Collocations in Use: How Words Work together for Fluent and Natural English (Intermediate) (9112) as well as various concordance lines from COCA which are appropriate to the students' level and related to the determined collocations to form the questions of the test. The test included eight main questions covering the $\forall \xi$ determined collocations to measure students' EFL collocational competence (see Appendix C). The types of collocations comprised noun-noun, verb-noun, adjective-noun, adverb-adjective and verb-preposition-noun. The types of questions included completion, completion using guiding words, replacement of words in brackets, replacement of underlined words using guiding words, correction of identified collocational errors, giving the right collocations for certain definitions and answering questions after reading some remarks by different people.

$\forall \cdot \forall \cdot \forall$ Validity of the CCT:

To establish the content validity of the CCT, it was submitted to a panel of jurors who indicated that the test can be considered a valid measure of EFL collocational competence.

$\forall \cdot \forall \cdot \forall$ Reliability of the CCT:

The reliability of the CCT was computed by using the test-retest method. A group of $\xi \cdot$ first year students- out of the study sample- from the Faculty of Tourism and Hotels, University of Sadat City, took the test twice under the same conditions at the beginning of the first term of the $\forall \cdot \forall \cdot \forall \cdot \forall \cdot \forall$ academic year. The time interval between the two administrations was two weeks to make sure that the students would not remember their answers from the first administration. The two administrations were correlated using the Pearson's correlation coefficient. The reliability coefficient was $\cdot \forall \cdot \forall \cdot \forall \cdot \forall$; thereby reflecting the test reliability.

$\forall \cdot \forall \cdot \forall \cdot \forall$ Piloting the CCT:

Piloting was to identify clarity, readability, collocation familiarity and test time. The estimated time for answering the test questions was $\forall \cdot$ minutes. The time was assigned by calculating the means of the time taken by each student divided by their number ($N = \xi \cdot$).
3. 4. 7. 8 Scoring the CCT:
All the items of the CCT were objective in scoring. One point was given for each correct response; zero was given to wrong or left-unanswered questions. The total score of the test was 72.

3. 6 Experimental Procedures:
3. 6. 1 Pre-testing:
Having selected the participants of the study, the researcher pre-tested them using the CCT. Pre-testing took place on 9th October 2011 at the Faculty of Tourism and Hotels, University of Sadat City.

3. 6. 2 Preparation and Orientation:
The experiment of the present study was implemented as a part of the "ESP and Terminology" course studied by first year Tourism and Hotels students. The first two weeks of the experiment included two orientation sessions. Each session took two hours. The first session was devoted to introducing students to the conception of English collocations, their importance and types. The second one aimed at training students on using the chosen corpus-based online tool at the Computer and Language Laboratory of the Faculty of Tourism and Hotels, University of Sadat City. COCA was favored for the following reasons:

- It is the largest free corpus of English and the only large and balanced corpus of American English.
- It is possibly the most widely-used corpus of English.
- It contains more than 561 million words (updated with 90 million words every year, from 1991-2011).
- It is equally divided among five different categories: fiction, popular magazines, newspaper articles and academic manuscripts as well as spoken language (https://corpus.byu.edu/coca/).

To facilitate training, step-by-step video tutorials and transcripts were used and made available for review purposes. These materials were obtained from Iowa State University's (2011) MOOC "Using Educational Technology in the English Language Classroom". Students were trained on how to (a) create a free account and password, (b) log-in, (c) navigate within the COCA landscape, (d) identify the five key
functions of it: List, Key Word in Context (KWIC), Collocates, Compare and Chart, (e) recognize tags such as POS (Parts of Speech) and Sort/Limit, (f) conduct search, (g) access the context and (h) read concordance lines and interpret the output. Afterwards, students were engaged in a corpus-based activity focused on using the Collocates function. They were also trained on how to use the prepared corpus-based journal (See Appendix D). Moreover, a private WhatsApp group, containing the experimental group students and the researcher, was created to share materials and students' journals and corpus findings, comment on students' work and provide constructive feedback.

5.7.5 Treatment:
In weeks 3-8, the researcher met with the participants each week. A 31-minute session was devoted to teach collocations at the end of each class time. Each session covered nearly 15 collocations. Participants were provided with different short reading texts which contained the targeted collocations from McCarthy and O'Dell's *English Collocations in Use: How Words Work together for Fluent and Natural English (Intermediate)* (9112). These texts incorporated a variety of topics related to the field of Tourism and Hotels such as *Travel, Flights, Accommodation, Language of Tourism, Types of Food*, and *Eating and Drinking*.

For the experimental group students, the collocations used in such texts were visually enhanced using boldface. They were required to read the assigned material for each session. Before reading, the researcher asked them to note and attend to the input-enhanced forms while reading. She clarified the meaning of unknown collocations by definition, synonym, and L1 translation. After reading, they were required to complete certain tasks where they can use the targeted collocations in certain contexts. For instance, in finishing one of the tasks, students read a series of sentences and completed them with the appropriate collocations. Other tasks included replacing underlined words with suitable collocations and completing collocation webs for certain words. On the other hand, the control group students received the same set of texts; nevertheless, the targeted collocations were not enhanced. They were required to read them and then answer some reading comprehension questions and do some collocation exercises.

- 31 -
According Nation (2013) as well as Spada and Lightbown (2013), students need to encounter collocations multiple times in order to recognize them in natural contexts and begin to produce them themselves. They are not fully learned through one meeting with them. Students are more likely to learn more collocations when their attention is focused on them and when they are fully engaged in meaningful activities to help their comprehension and production of them. Thus, after being exposed to the targeted collocations using input enhancement (in-class activities), students of the experimental group were required to conduct out-of-class online corpus-based activities to study the words in their authentic contexts by searching words of the targeted collocations in COCA using the Collocates function and fill in the prepared corpus-based journal.

In their journals, students wrote the word, its Part of Speech (POS), the frequency of the targeted collocation and its context, other three frequent collocations of the word and 11 entire sentences/concordance lines as examples of the use of the targeted collocation they explored and underlying it. When having technical problems with the Collocates function, students sometimes used the default List function to conduct collocate searches and complete their work. They were guided to overcome such challenges. On the WhatsApp group, students shared their journals with screenshots of their findings (See Figure 1) and posted comments in response to each other related to such findings. The researcher also participated in commenting on the students' conclusions, engaged in rich discussions with them and provided constructive and positive feedback when needed.
Figure 7. Some screenshots of students' findings.

6. Post-testing:

After conducting the experiment, the researcher post-tested both groups at the end of the first semester of the academic year 2018-2019, using the same instrument. Post-testing aimed to reveal the effect of using input enhancement and online corpora. Post-testing was carried out on 29th December 2018 at the Faculty of Tourism and Hotels, University of Sadat City.

4. Results and Discussion:

In order to investigate the hypothesis of the study, the $t$-test for independent samples was administered to compare the mean scores of the control and experimental groups in EFL collocational competence on the post administration of the CCT and identify the effect of using input enhancement and online corpora on the development of the participants' EFL collocational competence. Moreover, the effect size was calculated using Cohen's $d$ formula to measure the magnitude of the mean differences between the control and experimental groups in EFL collocational competence on the post-test. Table 7 provides the $t$-value of the control and experimental groups in EFL collocational competence on the post-test as well as the effect size.
Table 9. The t-value and Effect Size of the Control and Experimental Groups on the Post-test

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Group</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>EFL Collocational Competence</td>
<td>Control</td>
<td>95</td>
<td>99.19</td>
<td>4.15</td>
<td>-99.2436</td>
<td>48</td>
<td>.11</td>
<td>4.8143 Very Large</td>
</tr>
<tr>
<td></td>
<td>Exp.</td>
<td>95</td>
<td>51.94</td>
<td>4.52</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 9 shows that the mean scores were 99.19 and 51.94 and the SDs were 4.15 and 4.52 for the control and experimental groups in EFL collocational competence respectively. Thus, there existed a significant difference at the .11 level between the mean score of the control group and that of the experimental group in EFL collocational competence on the post-test in favour of the latter (t = -99.2436, p < .11). Thus, the hypothesis of the study was verified reflecting the fact that the experimental group achieved significant improvement in EFL collocational competence on the post administration. Such improvement as indicated in Table 9 can be related to using input enhancement and online corpora.

In addition, Table 9 shows that the mean scores of both groups in EFL collocational competence on the post-test were very different as indicated by the very large effect size (d = 4.8143). This is shown graphically in Figure 9. Thus, using input enhancement and online corpora proved to have a positive effect on enhancing university students' EFL collocational competence.
This significant result may be ascribed to different reasons. Throughout the experiment, EFL collocational competence improved because the experimental group students completed the required in-class input-enhanced reading activities as well as the out-of-class corpus-based activities using the online tool COCA where they functioned as researchers and autonomous learners. During the in-class activities, EFL collocational competence might have increased because students' attention was focused on particular collocations which were prominent in their reading materials in the course of doing different language tasks. Using boldfacing as a typographical cue might have contributed to the implicit learning of collocations by increasing the perceptual salience of them, which in turn might have pushed students to notice the enhanced collocations and select them as intake, leading to better performance in the assigned activities and the post-test. Moreover, such manipulation might have increased the chance for the encountered input to be effectively rehearsed in students' working memory and thus to be eventually integrated in the existing FL systems.

Besides, throughout conducting these in-class activities, students might have benefited from being exposed to the various reading stages employed. The pre-reading stage prepared them to note and attend to the input-enhanced forms. The during-reading stage enabled them to focus on such forms to get their meaning and how they are used in meaningful
contexts. The after-reading stage provided them with opportunities to practice meaningfully through performing some activities such as completion, replacement and finalizing collocation webs.

In addition, the out-of-class activities might have improved students' EFL collocational competence because students were engaged in more meaningful encounters and were motivated to spend much more time exploring, analyzing and interpreting the required information about the targeted collocations by themselves using COCA. Investigating corpus data gave students immense real examples of collocation usage rather than the contrived examples found in traditional textbooks. Corpora not only made accessible an enormous amount of authentic language but also created various inductive language learning opportunities not available before. Corpora might have shortened the lengthy learning process since it made the patterns stand out clearly, by concentrating and manipulating instances of collocations and by providing a rich source of embodiments and contexts of the newly learnt forms. Due to such constant and meaningful exposure, students learnt best and were able to form their own conclusions, which in turn made them get the satisfaction of success and enhance their self-confidence and further stimulated their interest in learning collocations. As well, students appreciated the constructive and positive feedback offered by their peers and the researcher to improve their work and journals.

Improvement was seen in the experimental group students' increased level of EFL collocational competence after using input enhancement and online corpora. Students were able to cope with collocations easily, and to understand and use them properly. The lexical items they utilized matched correctly and sounded natural. Such result is in agreement with the findings of other studies conducted by Szudarski and Carter (2016), Zarei, Esfandiari and Ne'man (2011), Boers et al. (2014), Gholami and Farvardin (2014) and Naseri and khodabandeh (2019) who concluded that typographical/visual input enhancement supports students' EFL collocational competence.

Such result is also consistent with the findings of other studies which suggested that online corpora provides an effective medium for developing EFL collocational competence (Abdellah, 2015; Foomani &
Khalaji, 2016; Kartal & Yangineksi, 2018; Li, 2017; Uçar & Yukselir, 2015). Though, such finding does not agree with the finding of Rasoooyar and Salehi (2016) who found that corpus-based instruction had the same effect as the traditional one on EFL students' learning of non-congruent collocations. However, students had positive attitudes toward corpus-based instruction and preferred it over the traditional way of teaching collocations. Thus, this inconsistent study does not devalue the testified positive effects of online corpora and DDL on EFL students' acquisition of language skills in general and on collocational competence in particular.

6. Conclusion:
Within the delimitations of the present study as well as the result attained, it can be concluded that using input enhancement and online corpora proved to have a positive effect on enhancing university students' EFL collocational competence. Unlike the control group students, those of the experimental group showed significant development in EFL collocational competence. During the implementation, students of the experimental group expressed concerns about technical problems and frustration when using the online tool COCA at the beginning of the experiment. Despite such challenges and by the end of the experiment, the students became more accustomed to the landscape of COCA and its Collocates function and reported that they have benefited from using it together with attending to the visually-enhanced input reflected in their EFL collocational competence.

7. Recommendations:
Based on the aforementioned result reached, the following recommendations are offered:

Ɇ. Using input enhancement and online corpora is recommended to be included in teaching EFL collocational competence to university students.

ɇ. More attention and time should be devoted to EFL collocational competence as it is very important for those students to naturally express themselves and be easily understood by their listeners and readers. Such ability will help them function efficiently in their upcoming study, career and life.
University students should be encouraged to use authentic and input-enhanced materials as well as corpus-based online tools to develop their EFL collocational competence.

EFL university instructors should be familiarized with EFL collocations and how they are taught.

EFL university instructors should be acquainted with the new methods and technologies in teaching EFL collocational competence. Besides, they should be trained on using them.

V. Suggestions for Further Research:
The following topics are suggested for further research:

1. Replicating the present study with different participants.

2. Investigating the effect of visual input enhancement and COCA on students' (a) reading comprehension, (b) writing performance, (c) grammar development and (d) autonomous learning.

3. Investigating the students' and instructors' attitudes toward the use of input enhancement and online corpora in EFL learning and teaching.

4. Investigating the effect of other input enhancement techniques and corpora tools on students' EFL language skills and retention.

5. Investigating the effect of other FonF methods on students' collocational competence, vocabulary acquisition and grammar learning.
References:


Al-Jamal, N. (2014). An investigation of the effect of incorporating input enhancement in dictogloss tasks to teach English grammar on the development of ESL female learners' grammatical awareness. (master's dissertation, Department of English Languages and Literature, College of Languages and Translation, Al-Imam


