Explicit and Implicit Collocation Teaching Methods: Empirical Research and Issues

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ARTICLE INFO

ABSTRACT

The need for integrating collocations into English language syllabuses in order to enhance EFL/ESL learners' language accuracy and fluency has been emphasized by a great number of researchers and scholars. Given this, finding viable collocation teaching methods has become the focal center of some specialists' interest. This has led into the emergence of various pedagogical suggestions some of which have aroused controversy. One of the most significant points of disagreement between these specialists concerns the effectiveness of implicit versus explicit collocation teaching methods. This article reviews the pedagogical potential of these two teaching approaches as well as the issues limiting generalizability of findings in the related literature. The review reveals that the scarcity of empirical studies which have compared the efficacy of these two controversial methods, lack of consistency in the reported findings, and neglect of some determining factors, such as learners' individual differences, have caused a great deal of confusion in the literature regarding the most effective pedagogical intervention. Further research is, therefore, required to address these gaps in the realm of collocation and help teachers, instructional designers and material developers effectively support learners in the learning process. Some suggestions for future research are provided.

INTRODUCTION

Collocations, which refer to word combinations such as *to make a mistake* or *rancid butter* that co-occur habitually at the syntagmatic level, are of great significance for L2 learners attempting to gain a high degree of competence (Boers, Demecheleer, He, Deconinck, Stengers, & Eyckmans, 2017; Nation, 2001; Szudarski & Carter, 2016). It has been more than two decades since Lewis (1993) drew language educators' attention to the fact that the importance of collocations needed to be re-examined systematically in EFL/ESL education. Scholars and researchers in the areas of lexicography, L2 material and curriculum design, pedagogy and L2 vocabulary teaching and learning (e.g. Bahns & Eldaw, 1993; Bardovi-Harlig, 2009; Conklin & Schmitt, 2008; Richards and Rogers, 2001) have also advocated Lewis's argument in favor of teaching and learning English collocations.

Unfortunately, the analysis of L2 learners' language production reveals that one of the major sources of errors is collocation-related, and this holds even for advanced learners (Akpinar & Bardakçi, 2015; Laufer and Waldman, 2011; Szudarski, 2015; Wu, Franken and Witten, 2010). Research shows that L2 learners deviate from native speakers' norms and consequently make sentences which may sound correct but odd. Their utterances have indeed the flavor of non-nativeness (Nesselhauf, 2003). This underlines the need for investigating pedagogical ways of developing language learners' collocation proficiency.

Study of different approaches in the area of language teaching indicates that there are two opposing views. While some researchers, including Nagy and Herman (1987), Nation (2001) and Gass (1999), advocate the implicit method of language teaching, others, such as Nesselhauf (2003, 2005), Leow (2000) as well as Rosa and Leow (2004), assert that language should be taught explicitly. The effectiveness of these two teaching approaches has been a matter of controversy in the area of Second Language Acquisition (SLA), in general, and collocation teaching and learning, in particular (Pellicer-Sánchez, 2017). One of the reasons for such an intense debate in the realm of collocation is scholars' conflicting views about differences and similarities between L1 and L2 learners.

More precisely, some specialists like Wray (2000) argue that there are fundamental differences between child L1 learners and adult L2 learners in learning collocations. Thus, they raise doubts about the idea that adult L2 learners, like child L1 learners, can develop their knowledge of collocations implicitly through sufficient exposure to language input. Indeed, they emphasize the necessity of some

explicit forms of instruction for enhancing adult L2 learners' collocational knowledge.

Proponents of explicit instruction believe that language learners can benefit most when their attention is directly drawn to learning objectives in a highly structured setting (Boers, Eyckmans, Kappel, Stengers & Demecheleer, 2006; Norris & Ortega, 2000; Bruce Taylor, Mraz, Nichols, Rickelman & Wood, 2009). Advocates of implicit teaching methods, on the other hand, assert that L2 learners do not need explicit instruction since they can learn target language objectives "from context alone" through exposure (Krashen, 1989, p. 440). However, it is noteworthy that while some researchers strongly advocate Krashen's (1981) extreme non-interventionist position and therefore contend the sufficiency of mere exposure for the learning of target items in input, others challenge such an extreme implicit position. Indeed, in addition to explicit instruction advocates, even some implicit instruction proponents contend that such exposure cannot sufficiently draw learners' attention to target features in input and therefore cannot help them become aware of and acquire those features. As a result, they suggest using some techniques, such as input enhancement and dictogloss, as compensation for the omission of explicit instructional intervention (Gass, 1997; Goudarzi & Moini, 2012; Lee, 2007; Sharwood-Smith, 1993).

A review of the related literature indicates that the role of attention in language learning has been widely discussed by many researchers: for example, Cowan (1995), Ellis (1990), Fotos (1993) and Posner (1992). Although some kind of attention is widely believed to be essential for changing input into intake, the type of attention required for learning is still a matter of controversy.

According to Schmidt and Frota (1986), one of the essential steps in learning a language is to pay attention to specific features of target input since it is believed that the more learners notice, the more they learn. This view is reflected in Schmidt's 'noticing hypothesis' (1990) which identifies conscious attention or 'noticing' as the prominent initial step in L2 learning. He firmly believes that among all types of input that learners are exposed to, only those that are noticed have the potential of becoming intake (Schmidt, 1995).

Schmidt's views regarding the importance of 'noticing' in successful language learning has gained the support of many researchers (e.g. Ellis, 1994, 1997; Lewis, 1993; Lynch, 2001; Skehan, 1998). Although the same view is shared by McLaughlin (1987), Rutherford (1987) and Smith (1981), an area of disagreement exists between these researchers and Schmidt. This point of disagreement concerns the role of consciousness. Unlike Schmidt (1990), they believe that the process of noticing an item in input can be either conscious or unconscious.

Despite the ongoing debate regarding the type of attention or noticing, there is general agreement that some kind of attention to target linguistic elements is absolutely essential for acquisition to occur. While advocates of explicit instruction believe that this can be accomplished through some explicit teaching methods such as negative evidence and explicit awareness-raising approaches, implicit instruction proponents suggest implicit focus on form techniques: for

example, input-flood treatment and textual/visual enhancement.

Such disagreement has caused many researchers to conduct classroom-based research on pedagogical potential of both methods. Despite researchers' efforts, the debate continues in the area of collocation and the question regarding the most viable collocation teaching method thus remains unresolved. This paper, therefore, attempted to address this issue through conducting a thorough and detailed review of key studies examining the effectiveness of explicit and implicit instructional approaches. It was indeed attempted to determine the main causes of such inconclusiveness in the existing literature.

IMPLICIT ATTENTION DRAWING TECHNIQUES

The fundamental role of input in language acquisition has been widely advocated by numerous researchers and theorists (Ellis, 1994; Krashen, 1985; Schmidt, 1990; VanPatten, 2007; Wong, 2005). Gass (1997), for instance, points to its significance by noting that "the concept of input is perhaps the single most important concept of second language acquisition" (p.1). Input is described as both written and oral forms of linguistic data that learners are purposefully exposed to in order to understand its meaning. Notwithstanding disagreements on some fundamental issues and assumptions, all theories and approaches in the field of SLA stress the significance of input.

Input-based approaches are the result of placing such great emphasis on the significance of input in language acquisition. Direct Method, which was emerged in the 19th and 20th century, was the first approach which stressed the importance of oral input. The idea of input-based instruction was subsequently developed by Asher (1969) and Winitz and Reeds (1973). It then received considerable attention in Krashen's (1979, 1981, 1982, 1985, 1989, 2003) theoretical ideas and suggestions regarding L2 acquisition. However, Krashen's theoretical claims regarding the sufficiency of mere exposure has been doubted. Thus, L2 specialists have proposed various methods in order to help learners benefit most from the exposed input.

Since the efficiency of mere exposure to input, i.e. meaning-focused instruction, has been questioned by a great number of researchers, form-focused instruction has attracted more attention in the field of SLA. In particular, the shortcomings of meaning-focused instruction and the superiority of form-focused instruction in improving learners' knowledge of collocation have been proven empirically (Laufer & Girsai, 2008; Laufer, 2010; Szudarski, 2015; Szudarski & Carter, 2016). Indeed, in the light of such findings, researchers suggest that due to the slow rate of the process of collocation acquisition through meaning-focused instruction and time constraints in L2 learning settings, the employment of some techniques to draw learners' attention to target collocations embedded in input is essential. Boers et al. (2017) also asserts that meaning-focused methods cannot draw learners' attention to the combination of words in a phrase or collocation, especially if "it consists of familiar words" (p. 449).

As Spada (1997) puts it, form-focused instruction involves "any pedagogical effort which is used to draw learners' attention to language form either implicitly or explicitly" (p. 73). One type of this kind of instruction is focus on form which was put forward by Michael Long (1991). According to Long (1991), in focus on form, drawing learners' attention to form is a by-product of activities in which communication and meaning are the primary focus. He also pointed to the incidental nature of this kind of attention and asserted that it indeed arises as a result of a communicative need (ibid).

However, other researchers, such as Doughty and Williams (1998), Ellis (2001) and Spada (1997), considered this initial definition lacking since it only points to the incidental type of focus on form instruction. They believed that there are two types of focus on form teaching: incidental focus on form and planned or preplanned focus on form. Therefore, they expanded Long's definition to include planned activities as well as incidental ones. Ellis (2001), for example, presented a broader definition by noting that focus on form teaching involves a range of pedagogical meaning-oriented activities, either incidental or planned, which aim to draw learners' attention to linguistic features.

In incidental focus on form instruction, there is no prior plan or intention regarding teaching linguistic items and since the focus is extensive, a variety of linguistic features are targeted (Ellis, 2000). Planned focus on form instruction, on the other hand, intends to bring target linguistic items into the focus of learners' attention either through input enhancement techniques (e.g. input flood and text enhancement) or corrective feedback on their errors (ibid). In addition to prior intention, this type of instruction differs from the incidental type in that it has an intensive focus which means that only some specific linguistic items in input are targeted (ibid). Moreover, Doughty (2001) notes that focus on form instruction can be implemented through various pedagogical methods which range from the most explicit which include metalinguistic rule explanation to the most implicit including input enhancement techniques. The remainder of this section will be devoted to input enhancement methods due to their tremendous popularity among advocates of implicit interventions.

As mentioned earlier, according to Schmidt's (1990) 'noticing hypothesis', only noticed input has the chance of becoming intake. As Richards and Renandya (2002) note, input refers to "language sources that are used to initiate the language learning process" (p.157) and intake is "that subset of input that is comprehended and attended to in some ways; it contains the linguistic data that is made available for acquisition" (p.158). Sharwood Smith (1991, 1993) proposed input enhancement as a possible way to convert input into intake. The term 'enhancement' means any instructional effort which can highlight the importance of target features in input in a way that learners notice them. The basic principle of input enhancement is that while it is attempted to call learners' attention to target items in an exposed input, they are, at the same time, asked to process the gist of it. It means meaning is also kept in focus.

One form of input enhancement is textual/visual enhancement. In this method, formatting techniques like highlighting, underlining or italicizing are used to call learners' attention to target linguistic forms (Hall, 2016). Boers and Lindstromberg (2009) called the use of such attention drawing techniques a 'semi-incidental acquisition' method which increases the incidental learning of collocations in and outside the classroom. Another type of input enhancement is input flood which is also known as input enrichment. In this technique, instances of a particular feature are artificially increased in input (Boers et al., 2017). Most of the studies examining the effectiveness of these methods have focused on grammar acquisition (Izumi, 2002; Jahan & Kormos, 2015; LaBrozzi, 2016; Lee, 2007; Leow, Egi, Neuvo, & Tsai, 2003; Winke, 2013), and very few studies have explored their efficacy in the area of collocation. A review of the related literature shows that the type of linguistic form is one of the possible factors affecting the efficacy of input enhancement techniques. Hence, the results regarding their effectiveness for the acquisition of one aspect of language cannot be generalized to the other aspects. This means that the impact of input enhancement methods on each aspect of L2 learning needs to be studied separately. This necessitates conducting more research in the realm of collocation.

Like other teaching methods, input enhancement has some advantages and disadvantages. As VanPatten and Leeser (2006) point out, one of the most obvious advantages of this method is that learners are exposed to positive evidence of L2 input abundantly. This can lead into "the development of an implicit system, regardless of one's theoretical framework" (pp. 62-63). In addition, it is asserted that since this kind of treatment can be implemented without the need for explicit language information, it does not cause any disruption to the flow of communication or the required focus on meaning (Doughty & Williams, 1998; VanPatten & Leeser, 2006).

On the other hand, it is asserted that this type of treatment is too implicit to help learners notice target features (Wong, 2005) or notice the gaps in their linguistic system (Spada & Lightbown, 1999). In the case of input flood, Izumi (2002) argues that even if high frequency exposure makes learners notice target forms, it cannot guarantee that this noticing will be converted into intake. Similarly, Thornbury (1997) emphasizes the importance of teaching intervention and remarks that noticing alone is not sufficient to bring about the desired learning outcome. Moreover, input enhancement techniques provide learners with positive evidence of L2 and do not necessarily help them to learn about unacceptable forms in a target language.

As mentioned earlier, despite the theoretical controversy surrounding the efficacy of these techniques, few researchers have attempted to examine their effectiveness empirically. There is therefore insufficient evidence to support or reject their efficacy. Bishop (2004) is one of those few researchers who have studied the effectiveness of input enhancement in the area of collocation. He divided learners into an experimental and a control group: the experimental group was given an enhanced text in which target items were red and underlined, and the control group was asked to read a regular text. In both texts, the target items were hyperlinked with glosses. The aim of his study was to find whether enhancing

target formulaic sequences would attract learners' attention and if this would affect their reading comprehension. To achieve this aim, he counted the number of times the enhanced lexical items were clicked on in comparison to unenhanced items. Results supported the effectiveness of input enhancement techniques for drawing learners' attention to the target items since the enhanced items were clicked on more often than unenhanced ones. It was also found that the experimental group outperformed the control group in reading comprehension. Nonetheless, it is not possible to conclude that such enhancement resulted in gains in the formulaic items since learners' knowledge of the formulaic sequences was not gauged.

Webb, Newton and Chang (2013) examined the impact of input flood treatment on EFL learners' collocation acquisition and reported positive results in this regard. More precisely, they asked four groups of Taiwanese EFL learners to read texts which varied in the number of times target collocations were repeated (1, 5, 10, 15). The participants' receptive and productive knowledge of the collocations were measured through four tests immediately after the treatment session. Results revealed that the 15, 10, and 5 encounters led to higher collocational gains than the 1 encounter. Comparing the posttest scores of the encounter groups also showed that the learners with more encounters indicated greater collocational knowledge at both levels. Li and Zhao (2011), Pellicer-Sánchez (2017) and Siyanova and Schmitt (2008) also investigated the effectiveness of this technique under the term of 'extended exposure to L2 collocations' or 'incidental collocation learning' and found it an effective method. Likewise, the results of Durrant and Schmitt's (2010) research study espoused the view that repeated exposure to target collocations leads to learning improvement. On the contrary, findings of studies conducted by Rassaei and Karbor (2012), Szudarski (2012) and Szudarski and Carter (2016) showed that input flood was ineffective in enhancing learners' collocational knowledge.

Mahvelati (2019) contends that a very likely reason for such mixed findings lies in the fact that the role of learners' particular characteristics, such as field-dependent/independent (FD/FI) cognitive style, which is one of the determining factors affecting the effectiveness of a teaching method has been ignored. Indeed, she asserts that success or failure of a teaching method in bringing about the desired learning results can be affected by the type of learners receiving that treatment. Hence, she carried out a qualitative research into the potential of input flood treatment for developing EFL learners' collocational knowledge with regard to their FD/FI cognitive style. In her study, three qualitative methods (a retrospective reflective task as a form of think aloud method, tests of intake and interviews) were used to explore the impact of input flood upon FD and FI learners' mental experiences in each stage of information processing (attention, perception/encoding and memory) and consequently the learning outcome. Results revealed that the input lood technique was more beneficial for the FI leaners due to their superiority in the active and autonomous processing of the received input and restructuring abilities. This implicit lesson design, however, was ineffective in enhancing the FDs' knowledge of

target collocations due to their holistic approach to processing the flooded texts and their need for explicit instructional support as a result of their too much reliance on externally defined goals. Mahvelati (2019), therefore, concluded that "the degree to which the input-flood technique could facilitate collocation knowledge development depended upon the learners' FD/FI cognitive tendencies" (p.54).

Boers et al. (2017) believe that increasing occurrences of the same collocations in a text (flooding a text) has serious practical limitations since such intervention "requires a fair amount of resourcefulness on the part of the materials developer" (p.450). They, therefore, focused on typographic enhancement as an alternative attention drawing technique in their study on L1 Belgian university students of English. In addition to examining its effectiveness, they attempted to determine whether it would serve as an awareness-raising technique encouraging subsequent independent learning of multiword units. Findings revealed that the students remembered textually enhanced collocations far better than unenhanced ones, but regarding the second research questions, their data did not provide any evidence (ibid). Conducting more research addressing Boers et al.'s (2017) second research question is necessary since the majority of studies in the related literature have not investigated the effects of input enhancement beyond the episodic memory stage.

Some researchers have evaluated different input enhancement conditions to find the most viable way of developing language learners' collocation proficiency. Sonbul and Schmitt (2013), for example, compared input flood treatment with textual enhancement technique (underlining, bolding or glossing) in a study on 43 EFL postgraduate students of a British university who had the minimum TOEFL score of 550 or IELTS score of 6.00. Their findings showed that textual enhancement was more effective than input flood in promoting the students' knowledge of target collocations at both the receptive and productive levels. Similar findings were reported by Szudarski's (2015) study on a group of polish EFL learners in which he compared the effectiveness of input flooding or what he called reading only with textual/visual enhancement (underlining) in regard to collocation learning. More precisely, first, he assessed the effects of the treatments on enhancing the learners' knowledge of collocations through five tests. Then, he conducted a series of interviews with the learners and their teacher to shed light on their perceptions of the treatments and the processes involved. This study is worthy of attention since it is one of very few projects which used a mixed-methods approach in the area of collocation teaching and learning. Findings of the study showed that unlike the textual enhancement technique, the input flood method was ineffective in attracting the learners' attention to the target collocations.

In another study, Szudarski and Carter (2016) studied Polish EFL learners' collocation acquisition under two different input conditions: input flood only and typographic enhancement plus input flood. Results revealed that combining textual enhancement with input flood led to significant improvement in the learners' both productive and receptive knowledge of target collocations. This is while input flood alone could not enhance the learners'

collocational knowledge. In addition, it was found that the number of encounters with the target collocations (six times vs. 12 times) in the texts did not significantly affect all collocation mastery levels.

Most of the studies on input enhancement have examined its usefulness for the acquisition of collocations with literal meanings (e.g. *a quick glance*); therefore, collocations with figurative meanings have been left under-researched. Another important caveat in the existing literature is that the efficacy of input enhancement techniques has been assessed based on their potential for enhancing full knowledge of target collocations. This is while the process of vocabulary acquisition is believed to be incremental (Pigada & Schmitt, 2006; Schmitt, 2010; Webb, 2007). This means that success or failure of these methods for promoting learners' knowledge of collocation cannot be fully determined unless partial knowledge enhancement is also traced.

Macis (2018) attempted to fill this gap. In three case studies on advanced English learners, she explored the effectiveness of text seeding (i.e. input flooding) for developing both partial and full knowledge of collocations with figurative meanings. Results indicated that knowledge of more than 50 percent of the target collocations was improved either partially or fully. This amount of learning is higher than other studies, such as Pellicer-Sánchez (2017) and Webb et al. (2013), examining the learning of collocations through input flooding. Measuring the partial knowledge can be the main reason for such difference (Macis, 2018).

In sum, there is little consistency in the findings of the main studies measuring the effects of input flood treatment on collocation acquisition. Some studies (e.g. Webb et al., 2013; Pellicer-Sánchez, 2017; Durrant and Schmitt, 2010) have provided evidence for the facilitative effects of input flood; others, such as Szudarski (2015), Szudarski and Carter (2016), have not. Some researchers have attempted to explain the reasons for such mixed findings. Mahvelati (2019), for example, believes that learners' particular FD/FI cognitive characteristics can affect the success of input enhancement techniques in a learning setting. Hence, she contends that differences in the types of learners participated in the studies exploring the efficacy of input flood have led to different research results and conclusions in the literature. As mentioned before, in a study on a group of EFL learners, she proved the significant role of learners' FD/FI cognitive style in benefiting from input flood treatment. She, therefore, concluded that those studies which reported positive results for input flood might have more participants with FI tendencies and their posttest scores might be so high that they affected the overall mean score of the whole group in favor of input flood treatment. She provided the same justification for the research studies which found input flood ineffective in facilitating collocation learning. More particularly, she noted that these studies might also have more participants with FD tendencies or the scores of the FD learners were so high that they affected the overall result. Based on the findings of her research, this seems like a reasonable assumption. However, it is not possible to draw a firm conclusion based on the results of a single study. Further research is needed to confirm her findings and assumptions.

Another factor that can account for such variations in the research findings is the type of knowledge (full or partial knowledge) gauged. Macis (2018), for instance, argued that her study could provide stronger evidence for the beneficial effects of input flood since both full and partial collocational knowledge were measured. She noted that most of the studies which reported less favorable results only focused on full knowledge improvement and neglected partial knowledge development. This is while partial knowledge improvement is an evidence for the success of a teaching approach in bringing about the desired learning outcome since the process of learning vocabulary is proved to be incremental (Schmitt, 2010; Webb, 2007).

A review of key studies on learning grammatical structures shows that the type and nature of target linguistic features (the level of complexity/difficulty) can affect the effectiveness of input enhancement techniques (Reinders and Ellis, 2009; Williams and Evans, 1998). Hence, inconsistent research results regarding the effectiveness of input enhancement in the area of collocation can be attributed to this factor as collocations have different types and nature. Lewis and Hill (1998, pp. 2-3), for example, define three grades for collocations: weak collocations (*have dinner*), medium-strength collocations (*to make money*) and strong collocations (*rancid butter*). On another dimension, collocations are classified into two main categories: lexical collocations and grammatical collocations.

In conclusion, the scant number of studies exploring the effectiveness of input enhancement techniques as implicit methods of collocation instruction and mixed results reported by these studies, particularly in the case of input-flood, highlight the need for conducting more research in this area. Additionally, the contention of implicit collocation instruction advocates that consider this method the best way or as viable as the explicit pedagogical techniques for teaching collocations cannot be rejected or supported without drawing direct comparison between explicit and implicit collocation teaching methods.

EXPLICIT COLLOCATION TEACHING METHODS

In the area of collocation, explicit form-focused instruction has received strong empirical support (Chan & Liou, 2005; Hsu, 2010; Peters, 2014, 2016; Webb & Kagimoto, 2011). Advocates of explicit collocation instruction, including Bahns and Eldaw (1993), Boonyasaquan (2009), Farghal and Obiedat (1995), Lewis (2000) and Nesselhauf (2003), emphasize the importance of "a certain amount of consciousness" (Dukan, 2000, p.16). They believe that the first step to develop learners' knowledge of collocations is to draw their attention explicitly to these chunks and make them aware of their importance in enhancing L2 fluency and accuracy.

In addition, Lewis (1993) contends that language teachers should not only raise L2 learners' awareness of collocations but also help them to acquire the necessary skills for learning these chunks. He refers to the importance of chunk-related activities by suggesting that "pedagogical chunking should be a frequent classroom activity" (ibid). He indeed believes that such activities can give L2 learners the chance

of developing the necessary skills concerning the abilities of noticing, organizing and recording collocations.

Following Lewis, some other researchers and specialists stress the significance of developing a set of skills as well as enhancing awareness. One of them is Boers et al. (2006) who carried out a study on a group of college students majoring in English to determine whether an explicit teaching method emphasizing noticing of L2 formulaic sequences would positively affect learners' linguistic abilities. Results not only corroborated the crucial role of enhanced awareness but also highlighted the significance of teaching a set of learning strategies and skills.

Stoitchkov (2008) also suggests that the skills which are required to be developed should include the ones that encourage L2 learners to think bigger than single word items and therefore increase their knowledge of collocational fields of already known words. He also points to the importance of developing 'noticing' as one of the central pedagogical skills which can help learners benefit greatly from target input. Similarly, Boonyasaquan (2009) suggests that learners should be encouraged to get into the habit of noticing collocations in the input they receive in and outside the classroom. It is worth noting that the development of such a habit, which can be a trigger for the incidental noticing of target linguistic forms in subsequent written and oral input, is believed to be one of the benefits of explicit instruction (Dekeyser, 2003; Mueller, 2010).

Moreover, both Boonyasaquan (2009) and Stoitchkov (2008) note that learners should be taught how to record the noticed collocations. Stoitchkov (2008), for example, suggests that collocations are better to be recorded with their L1 equivalents in accordance with topic. Topic-related organization and recording are also suggested by Lewis (1993). Finally, the last skill that Stoitchkov (2008) finds necessary to develop is 'storing'. Following Lewis (1993), he believes that teaching learners to store collocations as single entities, which can facilitate the process of retrieving, is of great importance (ibid).

Researchers and specialists have therefore strived to design instructional activities and methods that help learners not only learn new collocations but also reinforce the previously learned ones and provide opportunities to practice the above-mentioned skills. Ying and Hendricks (2004), for instance, put forward a four-step method called 'collocation awareness-raising (CAR) process'. According to their proposed method, the first step in teaching collocations is to help learners gain a deep understanding of the concept of collocation and its importance in language learning. The positive effect of such awareness was empirically proved in a study by Ying and O' Neill (2009) on a group of intermediate Chinese learners of English.

Secondly, they suggest that teachers begin with collocations which are relevant to in-class activities and then introduce some reference materials like collocation dictionaries and concordances to enhance subsequent learning. The use of such teaching and learning tools are also encouraged by other researchers and specialists since the samples found in these materials are taken from authentic English sources which show repeated and frequent word partners in real contexts. Chan and Liou (2005), for instance, investigated the

effectiveness of a bilingual concordancer for learning verb-noun collocations and found it very effective. Hill, Lewis & Lewis (2000), Laufer (2010), Webb and Kagimoto (2009) as well as Woolard (2000) have also recommended some dictionary-based activities, collocation games and lexical exercises for teaching collocations in L2 learning settings.

Thirdly, Ying and Hendricks (2004) suggest teaching learners the steps of noticing and noting collocations and the correct ways of putting the learnt collocations into practice. The last step in their proposed model is to give learners some useful feedback on the use of collocations in their written or spoken utterances. In brief, Ying and Hendricks' proposed model is a "threefold process" which "bridges students from *noticing* to *noting* to *incorporating* desired target forms" (p. 58). More precisely, Ying and Hendricks (2004) assert that:

> By pushing learners to produce what they have noticed, learners are constantly made aware of gaps: gaps occurring when they are unable to express what they intend to say, and gaps resulting when they realise the discrepancy between what they produce and what is regarded as acceptable in the target language. Noticing these gaps can lead learners to search for answers and solutions from various resources to "fill the gaps" (p.55).

This is based on Schmidt and Frota's (1986) contention that learners need to identify target forms and also the gaps that exist between their own language system and the target one available as input. Likewise, Ellis (1995) stresses the need for such awareness by noting that "learners need to notice when their own output is the same as the input as well as when it is different" (p.90).

It is worth noting that Ying and Hendricks (2004) examined the effectiveness of their proposed model for teaching collocation in an empirical study and found positive results in the quality of their subjects' writing. The potential of their model for improving EFL learners' writing proficiency was also examined in a study by Mahvelati (2016). Results empirically supported its effectiveness for enhancing learners' collocational knowledge and awareness. More precisely, it was found that the writing of the learners was improved in terms of vocabulary (the range of sophistication, lexical choice and usage), organization (succinctness, fluency and clarity of the expressed ideas) and language use (the accuracy of agreement, tense and prepositions).

In conclusion, since it is not feasible to teach all that language learners need due to the fact that lexical elements are infinite and the time of the class is limited, Lewis (2000) and some other researchers, such as Hill (2000) and Woolard (2000), strongly suggest teaching collocations explicitly through an awareness/consciousness-raising approach. More particularly, Lewis (2000) recommends that language teachers should raise their students' awareness of collocations and conduct some action research in their classes in order to find the most beneficial ways to develop collocation knowledge.

IMPLICIT VERSUS EXPLICIT METHODS OF COLLOCATION INSTRUCTION

In the area of collocation, although the effectiveness of explicit instruction has been proven in different studies,

its superiority over implicit instruction is still a matter of controversy. In fact, research into this issue yielded mixed results. Zaferanieh and Behrooznia (2011), for instance, in a study on 54 Iranian EFL learners compared the implicit collocation instruction through mere exposure with the conventional explicit instruction and reported that explicit instruction had more beneficial effects on L2 learners' collocational knowledge development. In a similar vein, the findings of Rassaei and Karbor's (2012) study which examined the efficacy of three awareness-raising methods revealed that the most effective method for enhancing learners' knowledge of collocation was the most explicit one. The findings of a study by Szudarski (2012), which was conducted on 43 Polish intermediate learners also indicated that implicit collocation instruction alone could not be effective and it needed to be accompanied by an explicit form of instruction.

However, it should be taken into account that most of the studies which have reported that explicit instruction is superior to the implicit form of teaching only examined the short-term effects of these two types of instruction and did not test their effectiveness in the long run. Thus, according to Norris and Ortega (2000) and Tode (2007), findings of these studies should be interpreted with caution since there is some empirical evidence (e.g. Sprang, 2003; White, 1991) that some treatments are only beneficial in the short term.

Oztina (2009), for example, carried out a study to examine the impacts of implicit instruction through input flood treatment and explicit instruction in the form of negative evidence on 91 Turkish EFL learners' acquisition of make/do collocations. Both short-term and long-term effects of the treatments were tested at both levels of recognition and production. Although both methods were reported to be effective, input flood was found to have more long-lasting benefits in terms of recognizing the target collocations. Similarly, the results of some research studies, such as Fahim and Vaezi (2011) and Mirzaii (2012), reject the claim regarding the superiority of explicit instruction over implicit methods. In Fahim and Vaezi's (2011) study, textual/visual input enhancement was shown to be as beneficial as explicit instruction in improving L2 learners' knowledge of collocation.

All in all, few researchers have empirically compared the effectiveness of implicit collocation teaching methods to explicit ones, and a close review of their studies shows that the reported results are quite mixed. While some studies (e.g. Rassaei and Karbor, 2012; Szudarski, 2012) have found explicit instruction more beneficial, others, such as Fahim and Vaezi's (2011) and Oztina (2009), have not reported such superiority. Lack of consistency in the findings of the above-mentioned studies is attributed to differences in the types of the explicit and implicit treatments employed. For example, Oztina (2009) assessed the efficacy of explicit instruction through negative evidence and implicit instruction through input flood; Zaferanieh and Behrooznia (2011) compared the effectiveness of conventional explicit instruction with mere exposure.

Furthermore, such different results may be due the fact that the studies measured the effects of the employed treatments over different time spans. For example, Rassaei and Karbor (2012) compared the effectiveness of the methods in both the short and long term; Fahim and Vaezi (2011), however, studied only the short-term effects. Other likely causes of these mixed findings are the neglect of learners' particular characteristics, differences in the types of collocations targeted and variations in the length of treatments employed.

CONCLUSION

In this paper, the key studies investigating the effectiveness of explicit and implicit collocation teaching methods were reviewed. More precisely, it was attempted to find the most effective way of teaching collocations based on the findings of the existing literature. A close review of research exploring the effectiveness of input flood and visual/textual enhancement as implicit attention drawing techniques indicates that input flood has provoked more controversy in the realm of collocation. Moreover, research has shown that textual enhancement is generally more effective than input flood. Nonetheless, it is not possible to draw a firm conclusion regarding the superiority of textual enhancement due to the fact that this body of research includes a very small number of empirical studies and therefore lacks enough evidence for such a conclusion. It is also worth noting that mixed findings regarding the effectiveness of input flood treatment for promoting learners' knowledge of collocation can be attributed to participants' individual differences (e.g. FD/FI cognitive style), the nature/type of target collocations (e.g. lexical/grammatical collocations), and the kind of knowledge (full/partial knowledge) gauged.

Many studies have reported positive results regarding explicit collocation instruction, but relatively little is known about its effectiveness relative to implicit methods, particularly input enhancement techniques, due to lack of enough research in this area. Even the few available studies have reported inconsistent findings. While some studies have shown that explicit forms of collocation instruction can yield more promising results than implicit ones, others have found implicit methods superior to or as effective as explicit methods. Further research in this area is therefore an absolute necessity. A review of the related literature also shows that there are some serious limitations in the conducted studies. Thus, any conclusions from the existing research findings should be drawn with great caution.

A very important caveat in the existing literature is that the focus of research has been on teaching factors only and factors related to learners' individual differences in approaching a learning task has not been taken into account. This is while a great number of specialists assert that learners' particular characteristics, such as cognitive styles, significantly affect the way they deal with and react to a teaching method (Altun & Cakan, 2006; Tinajero, Lemos, Araújo, Ferraces, & Páramo, 2012). Hence, findings of this body of research need to be interpreted with caution due to such neglect.

Another limitation which needs to be addressed in future research studies is that the majority of studies comparing the effectiveness of collocation teaching methods, in general, and explicit versus implicit approaches, in particular, have only focused on full knowledge of collocations with literal meanings. This means that they have not measured par-

tial knowledge development which is believed to be a sign that acquisition has occurred (Schmitt, 2010; Webb, 2007). As Pigada & Schmitt (2006) and Macis (2018) note, partial knowledge is as important as full knowledge in determining the success of a collocation teaching method due to the incremental nature of lexis acquisition. Moreover, the effectiveness of the instructional methods for the acquisition of collocations with additional or figurative meanings has not been examined in most of the conducted studies in the related literature. This is while knowledge of this type of collocations is also necessary for achieving native-like fluency and accuracy in L2 production.

In addition, most of the conducted studies have only focused on the effectiveness of these methods for enhancing learners' passive knowledge of collocations and have not assessed or compared their potential for helping L2 learners to go one step further and use the acquired knowledge of collocation in their written or spoken production. L2 learners need an instructional method which not only increases their knowledge about the collocational fields of words but also helps them to use such knowledge in practice (in their speaking and writing) and heighten their collocation awareness in a way that encourages them to actively learn more collocations even in their out-of-class time.

Another important factor which can affect the efficacy of a method is the nature of the components of target collocations. Very few researchers have addressed this issue. Webb et al. (2013), for example, note that if all or at least one of the words that make up target collocations are unknown, learners may focus on understanding the meaning of the unknown item(s) rather than learning the form of the collocations. Boers and Lindstromberg (2009), on the other hand, believe that unknown words increase the chance of noticing and may lead into greater gains. These opposing views and the dearth of empirical evidence necessitate conducting rigorous research in this area.

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