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LİSANSÜSTÜ EĞİTİM ENSTİTÜSÜ

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DOKTORA TEZİ

NURİYE DEĞİRMENCİ UYSAL

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Nuriye DEĞİRMENCİ UYSAL tarafından Prof. Dr. Dinçay KÖKSAL yönetiminde hazırlanan ve **31/01/2023** tarihinde aşağıdaki jüri karşısında sunulan "**The Effect of Input-based and Output-based Focus on Form Instruction on the Acquisition of Adverbial Conjunctions**" başlıklı çalışma, Çanakkale Onsekiz Mart Üniversitesi Lisansüstü Eğitim Enstitüsü **Yabancı Diller Eğitimi Anabilim Dalı**'nda **DOKTORA TEZİ** olarak oy birliği ile kabul edilmiştir.

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ETİK BEYAN

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ETHICS DECLARATION

In this thesis study, which I prepared in accordance with Çanakkale Onsekiz Mart University Graduate School of Education Thesis Writing Manual; I hereby declare that I have obtained the data, information and documents I have presented in the thesis within the framework of academic and ethical rules, that I have presented all information, documents, evaluations and results in accordance with scientific ethics and morals, that I have cited all the works I have used in the thesis by making appropriate references, that I have not made any changes in the data used; that the work I have presented in this thesis is original, otherwise I undertake and declare that I accept all the loss of rights that may arise against me.

Nuriye DEĞİRMENCİ UYSAL

27/02/2023

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Nuriye DEĞİRMENCİ UYSAL

Çanakkale, February 2023

ÖZET

GİRDİ-TEMELLİ VE ÇIKTI-TEMELLİ YAPI ODAKLI ÖĞRETİM YÖNTEMLERİNİN BAĞLAYICI ZARFLARIN EDİNİMİ ÜZERİNDEKİ ETKİLERİ

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Danışman: Prof. Dr. Dinçay KÖKSAL
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Bu çalışmanın amacı, girdi temelli ve çıktı temelli yapı odaklı öğretim yöntemlerinin bağlayıcı zarfların edinimi üzerindeki karşılaştırmalı ve birleşik etkisini incelemektir. Araştırma, üniversitenin ilk yılında yabancı dil olarak İngilizce dersini alan 136 öğrenci ile yürütülmüştür. Çalışmada üç deney grubu ve bir kontrol grubu yer almıştır. Deney grupları girdi grubu, çıktı grubu ve girdi + çıktı grubu olarak isimlendirilmiştir. Dört haftalık uygulama boyunca sekiz oturumda toplam dört okuma parçası verilmiştir. Okuma metinleri içerik olarak aynı olmakla birlikte uygulama açısından farklıdır. Çalışma, yarı-deneysel karma yöntemli bir araştırma desenini uygulamıştır. Kontrol ve deney gruplarına ön test, son test ve geciktirilmiş son test uygulanarak veriler ağırlıklı olarak nicel olarak toplanmıştır. Testte iki bölüm içinde dört tür soru vardır. Birinci bölümde, çoktan seçmeli test ve dilbilgisel yargı testi ile öğrencilerin algılayıcı becerilerin ölçülmesi; ikinci bölümde ise boşluk doldurma ve cümle tamamlama testi ile üretken becerilerin sınanması amaçlanmıştır. Ayrıca her gruptaki katılımcılarla yapılan odak grup görüşmeleri nitel veriler sağlamıştır. Sonuçlar, tüm grupların değişen derecelerde ilerleme gösterdiğini sergilemiştir. Ancak, tek anlamlı fark, çıktı grubu ile kontrol grubu arasında bulunmuştur. Sonuçlar, çıktı grubunun son testte kontrol grubundan önemli ölçüde daha iyi performans gösterdiğini, ancak gecikmeli son testte bu farkın uzun sürmediğini göstermiştir. Son olarak, katılımcıların aldıkları eğitimle ilgili algıları rapor edilmiş ve bulguları yorumlamak için kullanılmıştır.

Anahtar Kelimeler: Yapı Odaklı, Biçim Odaklı, Girdi Temelli, Çıktı Temelli, Dikkat

ABSTRACT

THE EFFECT OF INPUT-BASED AND OUTPUT-BASED FOCUS ON FORM INSTRUCTION ON THE ACQUISITION OF ADVERBIAL CONJUNCTIONS

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The purpose of this study was to examine the comparative and combined effect of input-based and output-based focus on form instruction on the acquisition of adverbial conjunctions. The research was carried out with 136 EFL learners who took English as a compulsory course in the first year of university. There were three experimental groups and one control group in the study. The experimental groups were named as input group, output group, and input + output group. A total of four reading passages were given within eight sessions during four weeks of treatment. The reading texts were the same in content but they differed in treatment. The study followed a quasi-experimental mixed-method research design. The data were mainly gathered quantitatively by applying pretest, immediate posttest, and delayed posttest to the control and experimental groups. There were four types of questions within two parts in the test. In the first part, it was aimed to examine the learners' receptive knowledge by multiple choice and grammaticality judgement test. On the other hand, the second part tested their productive knowledge with fill-in-the-blank items and the sentence-completion test. In addition, focus group interviews with the participants in each group provided qualitative data. The results demonstrated that all groups showed progress to varying degrees. However, the only significant difference was found between the output group and the control group. The results showed that the output group significantly performed better than the control group in the posttest, but the difference did not last long in

the delayed posttest. Lastly, the participants' perceptions on the instruction type they received were reported and used to interpret the findings.

Keywords: Focus on Form (FonF), Form Focused, Input-based, Output-based, Attention

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ABBREVIATIONS

CI	Comprehensible Input
CLT	Communicative Language Teaching
EFL	English as a Foreign Language
FFI	Form-Focused Instruction
FonF	Focus on Form
FonFs	Focus on Forms
GJT	Grammaticality Judgment Test
L2	Second Language
M	Mean
MCT	Multiple Choice Test
MFI	Meaning-focused Instruction
PI	Processing Instruction
RQ	Research Question
SD	Standard Deviation
SLA	Second Language Acquisition
SPSS	Statistical Package for Social Sciences

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CHAPTER I
INTRODUCTION

1.1. Introduction

The chapter begins with the statement of a research problem and then elicits the aim of the study and research questions. In addition, the significance of the study is introduced. Moreover, assumptions and limitations of the study are discussed. Lastly, the definitions of related terminology are presented. The chapter concludes with the chapter summary.

1.2. The Statement of Research Problem

In recent decades, many researchers have changed their focus from traditional grammar teaching to meaningful input which provides learners numerous opportunities to acquire linguistic targets. In addition, several SLA researchers achieve a broad consensus on the important role of attention in L2 learning to promote noticing the target forms. Therefore, noticing through input or textual enhancement as a form of input-based instruction and the noticing function of output as a form of output-based instruction have been studied under the assumption that they ensure learning situations which call learners' attention to form within the meaningful tasks. However, some research in the related area presents conflicting results with regard to the effectiveness of input or output in L2 acquisition. While several studies offer superiority of input over output (Benati, 2005; Farley, 2001a; Lee and Benati, 2007a; Rezvani, 2011; Boostan Saadi and Saeidi, 2018), some others suggest that output is more effective than input (Allen, 2000; Ellis, 2003; Morgan-Short and Bowden, 2006; Rassaei, 2012; Salimi and Shams, 2016; Toth, 2006). Moreover, the others support that input-based instruction and output-based instruction have equal advantages in second language development (Farley, 2001b; Gholami and Farvardin, 2017; Smith, 2015).

On the other hand, when compared to the native English speakers, EFL learners tend to experience difficulty in comprehension and production of adverbial conjunctions. However, there is not much research has been carried out in detail to examine the ways to learn conjunctive adverbs effectively. Therefore, there is a need for research that compares the relative effects of the two types of focus on form instruction, that is input-based and

output-based instruction, on the acquisition of adverbial conjunctions. Thus, the drive behind this study is the paucity of studies in the related field, especially in Turkey.

1.3. The Purpose of the Study and Research Questions

The purpose of this study was to examine the comparative effect of input-based and output-based focus on form instruction on the acquisition of adverbial conjunctions. The reason behind the selected topic was the previous studies' supporting results for input enhancement and pushed output activities in teaching and learning of different linguistic targets. While most of the studies have handled them separately, this research focused on both the comparative and combined impact of input- and output-based instruction. By this way, it was aimed to encourage learning by means of external and internal attention drawing techniques respectively.

This study aimed to explore the impact of input-based and output-based instruction on the acquisition of conjunctive adverbials. Regarding the aim, this study tried to answer the questions below:

1. Is input-based instruction effective in learning adverbial conjunctions?
    a) Does input-based instruction increase learners' receptive knowledge of adverbial conjunctions?
    b) Does input-based instruction increase learners' productive knowledge of adverbial conjunctions?
2. Is output-based instruction effective in learning adverbial conjunctions?
    a) Does output-based instruction increase learners' receptive knowledge of adverbial conjunctions?
    b) Does output-based instruction increase learners' productive knowledge of adverbial conjunctions?
3. Is the combination of input-based and output-based instruction effective in learning adverbial conjunctions?
    a) Does input + output-based instruction increase learners' receptive knowledge of adverbial conjunctions?

b) Does input + output-based instruction increase learners' productive knowledge of adverbial conjunctions?

4. Which one is the most effective on L2 learners' knowledge of adverbial conjunctions among the different instructional methods?
   a) Which one is the most effective on L2 learners' receptive knowledge of adverbial conjunctions among the different instructional methods?
   b) Which one is the most effective on L2 learners' productive knowledge of adverbial conjunctions among the different instructional methods?
5. What are the learners' perceptions regarding the instruction type they received?

1.4. The Significance of the Study

Although recent research and updates in the related literature have favoured meaningful tasks rather than traditional grammar teaching, a few studies have compared the relative effects of input-based and output-based FonF instruction on the acquisition of grammatical items. Among them, while many studies have examined input-based instruction based on VanPatten's Processing Instruction (PI) Model, few have explored the effects of input enhancement as a form of input-based instruction (Benati, 2001, 2005; Erlam et al., 2009; Farley, 2001a, 2001b; Morgan-Short and Bowden, 2006; Toth, 2006; Wijaya and Djasmeini, 2017).

Moreover, a handful of studies explore the combined impact of input-based and output-based instruction; some of which have investigated the sequential effect of input and output (Gass and Torres, 2005; Kirk, 2013; Smith, 2015) while the others centered upon more traditional comprehension and production activities with focus on forms (Tanaka, 1999, 2001). The only study conducted to examine the relative and combined effects of input and output-based FonF instruction was by Izumi (2002), yet this study differs from it in terms of the comparison group, i.e. control group, as the control group in Izumi's study (2002) participated in the pretest and posttest without any information about the instructions throughout the research. On the other hand, the comparison group in this study will receive the same reading materials but without getting any intervention than that of the experimental group since the aim is to compare the impact of different treatments among intervention groups and with no intervention. The rationale behind it is anchoring the control group by

making it identical to experimental groups apart from the treatment to eliminate the possible confounding variables.

In addition, the comparative studies have not adequately investigated a longer period of time as the studies conducted so far have not gone beyond six sessions (Izumi, 2002), or three sessions (Kirk, 2013), or even only one or two sessions (Tanaka, 1999, 2001; Gass and Torres, 2005). Furthermore, the participants are low in number to give valid and reliable results in the previous research. Lastly, another problem in the research designs of the existing studies is concerned with the measurement of different knowledge; i.e., receptive and productive skills. The pretests, immediate posttests, or delayed posttests have been designed in order to gauge learners' receptive knowledge through multiple choice items by ignoring the productive knowledge.

1.5. Assumptions

By taking into the consideration under which circumstances the research was conducted, some assumptions were made regarding the participants, data collection tools, data collection procedures, research design, and the teaching philosophy. The study was conducted with the following assumptions:

- The participants expressed their ideas and feelings about the treatment they received sincerely.
- The tests and focus group interviews used in data collection was sufficient in gathering quantitative and qualitative data respectively.
- Data were collected in three different time phases, i.e. before the treatment, immediate after the treatment, and two weeks after the treatment. In addition, the study lasted for six weeks and 12 sessions in total. It was assumed that timing and the duration of the study was adequate and appropriate to discover the differences in the proficiency levels of participants regarding conjunctive adverbs.
- Using intact classes did not affect the results as no significant difference was found between groups, and they were found homogeneously distributed.

- Input-based FonF instruction was assumed to be efficacious on L2 learners' knowledge.
- Output-based FonF instruction was assumed to affect L2 learners' performances on the comprehension and production of the target linguistic items.
- It was assumed that the combination of input-based and output-based FonF instruction had an impact on L2 learners' knowledge.
- The researcher assumed that FonF instruction was effective in learning adverbial conjunctions.

1.6. Limitations

This research study has been conducted to shed light in the related area, and arisen out of the limitations of the other studies. However, it has inherently some limitations. Firstly, the experimental groups and the control group were intact classes. Although the intact classes were randomly assigned to either control or experimental group, the groups were not formed as a result of random assignment of participants.

The participants were the learners who took English as a compulsory course in their freshman year. Their proficiency levels were measured with the in-house proficiency exam which was held at the beginning of the academic year, and they were beginner learners of English. The findings could be different with L2 learners of different proficiency levels. Moreover, as they had low proficiency in L2, they often asked for an explicit instruction according to the data obtained from the focus group interviews. Explicit instruction could be available whenever needed during the study, or another experimental group which would receive explicit instruction about the meanings and functions of adverbial conjunctions could also be part of the study.

The participants' proficiency levels were measured in terms of comprehension and production. However, their comprehension and production skills were only tested via reading and writing skills. It could be better to include data collection tools which assess listening and speaking skills. Additionally, quantitative data were collected through pretest, posttest, and delayed posttest. The grades obtained from midterm exams, quizzes, etc. could

be used to back up the research findings. On the other hand, qualitative data were gathered by means of focus group interviews. Other data collection instruments such as portfolios and reflections could be used to interpret the results.

In addition, the number of participants was limited to generalize the findings; therefore, a larger sample population could be studied. Moreover, the study lasted for six weeks and 12 sessions in total. A longer period of time might yield different results. Furthermore, only some of the adverbial conjunctions which are commonly encountered in reading texts were studied in this study. The findings might be different with less commonly used adverbial conjunctions. The current research was limited to adverbial conjunctions; therefore, different linguistic areas could be studied as well.

Adverbial conjunctions which are at the core of this study are more or less salient. Focus on form instruction, especially input-based instruction may be insufficient in triggering attention to form when the target linguistic items are unobtrusive and/or have little meaning on their own. Therefore, the findings of the present study could be limited to similar linguistic forms.

1.7. Definitions

The key terms and common words / phrases that are used to understand and explain the purpose and theoretical background of the study are listed below:

Form Focused Instruction (FFI): It refers to the pedagogical practice which attract learners' attention to form in varying degrees. According to Ellis (2001), FFI is a hypernym for FonF and FonFs.

Meaning-focused instruction (MFI): It focuses on the importance of meaning and sees language as an instrument for communication. There is no or a minimal role of attention to forms (Ellis et al., 2003).

Focus on forms (FonF): It focuses mainly on forms, and corresponds to traditional grammar teaching in which discrete linguistic structures are presented and practiced (Loewen, 2011).

Focus on form (FonF): Long (1991:45-46) described focus on form (FonF) as "overtly draw[ing] students' attention to linguistic elements as they arise incidentally in lessons whose overriding focus is on meaning or communication". Spada (1997) incorporates proactive efforts into the definition by adding planned and predetermined attention to form in a meaningful task.

Planned focus on form: It allocates attention to form to some extent but the pivotal focus is still on meaning. It involves an intensive treatment of one or two predetermined forms (Ellis, 2001).

Incidental focus on form: It provides an extensive treatment of a large variety of linguistic forms arisen in a meaningful activity (Ellis, 2001).

Proactive / preemptive focus on form: It is similar to planned FonF (Long and Robinson, 1998). Students or teacher attract attention to a linguistic structure as a result of perceived gap in knowledge even though there is not an actual problem encountered (Ellis et al., 2001).

Reactive focus on form: It is similar to incidental FonF. It occurs when a learner fails to produce target linguistic form. It is possible to address error explicitly by giving the correct form directly, or by giving metalinguistic information; or implicitly by reformulating the learner's utterance related to the target form (Long and Robinson, 1998).

Enriched input: Enriched input can be defined as seeding with multiple examples of a targeted linguistic form which have been particularly designed or tuned accordingly within the planned FonF instruction. It is expected to trigger attention to form in the meaning-focused tasks (Ellis, 2001).

Input flood: It is an option of making use of enriched input in a focus-on-form intervention in which a great deal of exemplars of a target form are embedded in the instructional activity (Ellis, 2001).

Input enhancement: It is one of the ways of using enriched input which requires input to be highlighted and more salient to the learners so that the targeted linguistic item attracts their attention and promotes acquisition (Sharwood Smith, 1993).

Input-based instruction: It is commonly examined under the title of FonF approach. Ellis (2012: 285) conceptualized the input-based instruction as an instruction which "involves the manipulation of the input that learners are exposed to or are required to process". Input-based instruction includes focused, finely tuned input (Ellis, 1999), and it is required for learners to internalize the linguistic elements (VanPatten, 1996).

Output-based instruction: It focuses on the importance of producing language and the role of output in language learning. It can be based on Swain's (1995; 2000) Output Hypothesis. According to Swain (2000: 99), "output-based instruction may stimulate learners to move from the semantic open-ended strategic processing prevalent in comprehension to the complete grammatical processing needed for accurate production, and students' meaningful production can lead to language development".

Universal Grammar: Universal Grammar (Chomsky, 1981, Cook, 1988) is a mentalist theory, whose basic postulate is that human beings have an innate language faculty and a set of grammar structures are genetically wired in human brains.

Comprehensible Input Hypothesis: Krashen (1992: 409) states that "we acquire language by understanding messages, that 'comprehensible input' (CI) is the essential environmental ingredient in language acquisition. Comprehensible input is necessary for language acquisition, but is not sufficient".

Noticing Hypothesis: It asserts that attention is required for learning to occur. Schmidt (2001) focuses on the necessity of noticing by stating that "input does not become intake for language learning unless it is noticed, that is, consciously registered. SLA is largely driven by what learners pay attention to and notice in target language input and what they understand the significance of noticed input to be" (Schmidt, 2001: 3-4).

Receptive knowledge: Schmitt (2000) refers to receptive knowledge as passive vocabulary due to the passive attention of learners in the learning process. Learners can comprehend and identify L2 vocabulary in a reading text or conversation.

Productive knowledge: It is referred to as active vocabulary because learners are able to produce L2 words in an oral or written communicative activity (Schmitt, 2000).

1.8. Chapter Summary

This chapter introduced the purpose of the study and the problems behind the decision of conducting this research. The significance of the study was elicited, and the assumptions and possible limitations of the study were covered. Lastly, related terminology was reviewed to give a brief idea about the subjects encountered in applying the research.

CHAPTER II
THE THEORETICAL BACKGROUND OF THE STUDY

2.1. Introduction

In this chapter, the theories, approaches, and concepts regarding to form focused instruction, input-based instruction and output-based instruction are explained briefly. Lastly, previous research on input-based instruction, and comparative and combined effects of input-based instruction and output-based instruction is discussed.

2.2. Form Focused Instruction (FFI)

It is possible to state that language learning ability is necessarily vivid and high for young learners and they can acquire language without any intentional focus on form. However, it might not be the case for all learners since there are many other contributory factors affecting language learning. The fact that the success rate is not high in most of the second or foreign language classes, gives rise to the need for focus on form. Changes in physiology through aging and disadvantages inherent in L2 classrooms are some possible reasons for this failure. Therefore, learners in such situations, particularly those who received L2 input in mainly or merely in classroom context, appear to draw on FFI. FFI helps learners make the most of instruction through which they have limited exposure to target language (Lightbown and Spada, 2006).

Recent research about the role of FFI (e.g. Doughty and Williams, 1998a; Ellis, 2001; Larsen Freeman and Long, 1991; Lightbown, 2000; Norris and Ortega, 2000; Spada, 1997) recognizes the importance of linguistic as well as communicative aspects of second/foreign language instruction. In this sense, one way of classifying FFI is presented in the taxonomy proposed Spada and Lightbown (2008). Rather than discussing the necessity of integrating language forms in meaning-based activities, they question how and when FonF is supposed to be included in such instruction. In respect to this, Spada and Lightbown (2008) differentiated between isolated and integrated FFI to answer the how and when questions (Elgün-Gündüz et al., 2012). They primarily differ in timing of form focused instruction. In the former one, linguistic features could be provided ‘in preparation for a communicative

activity or after an activity in which students have experienced difficulty with a particular language feature' (Spada and Lightbown, 2008: 8). Language forms are presented separately from a communicative stage, either as a preparation or after a communicative activity. Still, it is tightly tied to a program that involve communicative or content based instruction. Isolated FFI distinguishes from Long's focus on forms in that the latter one targeted on a specific language form and it is presented and practiced within a structural syllabus. In other words, L2 learners are not exposed to target forms in performing a communicative task (Spada and Lightbown, 2008). On the other hand, they encounter new language forms during a meaningful activity in integrated FFI. Attention can be directed to target forms by means of feedback or brief explanations without disrupting the flow of communication. While focus is on meaning and content, it is aimed to draw learners attention to form function relationship. Learners are often encouraged to use linguistic forms to achieve a content-based goal (Spada and Lightbown, 2008).

However, this chapter mainly outlines the different viewpoints regarding the role of instruction in second language learning, and has examined the existing taxonomies for form-focused instruction (FFI) in general, and focus on form (FonF) in particular. The primary difficulty confronted is to ascertain the definitions of FFI and FonF and to determine their boundaries. The terms have been defined in different ways, in some overlapping and some conflicting ways (Ellis, 2008; Doughty and Williams, 1998a; Williams, 2005). Accordingly, L2 instruction can be classified depending on where the focus is on; meaning or form. Firstly, meaning-focused instruction (MFI) underlines the importance of meaning and sees language as an instrument for delivery of meaning with minimal or no attention to forms (Ellis et al., 2003). While the MFI's framework is somewhat clear-cut, the definition and practice of FFI are comparatively ambiguous.

Referring to the Long's (1991, 1996; Long and Robinson, 1998) taxonomy, a distinction is often made between different L2 instruction options; focus on meaning, focus on form (FonF) and focus on forms (FonFs). It is clear that the first option, focus on meaning, overlaps meaning focused instruction. On the other hand, focus on forms corresponds to traditional grammar teaching in which discrete linguistic structures are presented and practiced (Loewen, 2011). Long (1991: 44-45) described focus on form (FonF) as "overtly draw[ing] students' attention to linguistic elements as they arise incidentally in lessons

whose overriding focus is on meaning or communication". Ellis (2001) asserts that FFI is a hypernym for FonF and FonFs, and in referring one or both of these options, the term form-focused instruction is often adopted. Similarly, Ellis et al. (2003) depict the pedagogical options in L2 instruction and place focus-on-forms and focus-on form under the title of form-focused instruction as illustrated in Figure 1 below.

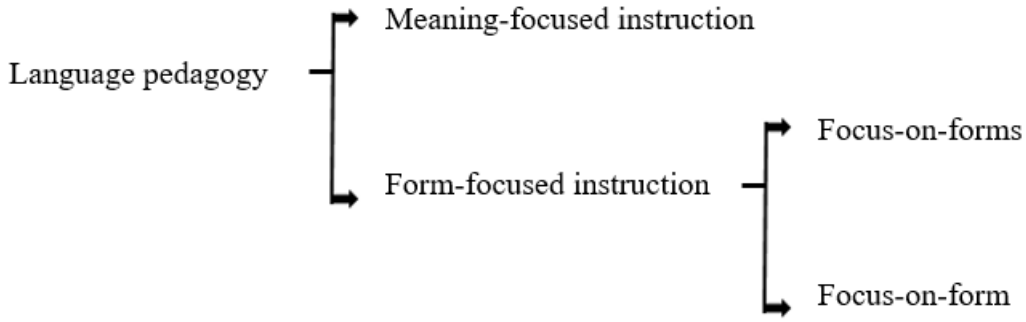


Figure 1. Pedagogical options (Ellis et al., 2003: 149)

However, different usages of the term FFI have become confusing and eventually made it difficult to define. Hence, as FFI can possibly mean either FonF or FonFs instruction, Doughty and Williams (1998b) abstain from using the term while SLA researchers embrace the term and continue to use it somewhat in an inconsistent way. For this reason, there is need for drawing the boundaries of these constructs and defining their relationship (Loewen, 2011). Thereafter, form-focused instruction is accepted as a superordinate category of FonF and FonFs, in which attention to form is essential but in varying degrees. Focus on forms and FonF are often employed in a dichotomous fashion to specify their difference; however, it is recommended to think them as two ends of a continuum, in which the FonF and meaning increase or decrease proportionally (Loewen and Sato, 2017).

2.3. Types of Form-Focused Instruction

Table 1

Types of form-focused instruction (Reprinted from Ellis, 2001: 17)

Type of FFI	**Primary Focus**	**Distribution**
1. Focus-on-forms	Form	Intensive
2. Planned focus-on-form	Meaning	Intensive
3. Incidental focus-on-form	Meaning	Extensive

As illustrated in Table 1 (Ellis, 2001: 17), form-focused instruction is to be divided into three instead of two types, in regard to the place where the primary focus is and the way how attention to form is allotted. Hereunder, focus on forms (Type 1), planned FonF (Type 2), and incidental FonF (Type 3) can be subsumed under form focused instruction according to Ellis (2001). Type 1 differs from the others in that it mainly focuses on forms rather than meaning, and it is considered "as 'the structure-of-the-day' approach" by Krashen (1982: 150). Type 2 also aims to allocate attention to form to some extent but the primary focus is still on meaning. They share some similarities in terms of the distribution of attention as they both involve an intensive treatment of one or two predetermined forms. On the other hand, Type 3 includes extensive treatment of a large variety of linguistic forms arisen in a meaningful activity (Ellis, 2001). Therefore, the learning milieu of Type 3 instruction can only be investigated through interpretative studies while experimental research can be conducted to examine Type 1 and Type 2 form focused instruction (Loewen, 2011).

In addition, as mentioned before, the fact that integrated FFI is supposed to occur within a meaningful activity in which learners' attention is drawn to form during communicative interaction (Spada and Lightbown, 2008), is compatible with focus on form (FonF) as defined by Ellis (2002a) and by Doughty and Williams (1998). In this sense, it can be both in the form of planned FonF, in which the target form is predetermined and planned accordingly; and in the form of incidental FonF that occurs during an interaction in the classroom (Spada and Lightbown, 2008).

In this study, Ellis's (2001) taxonomy is adopted to draw attention to the difference between focus on forms (FonFs) and focus on form (FonF) while Type 2 and Type 3, namely planned focus on form and incidental focus on form instructions are examined under the title of focus on form (FonF).

2.4. Focus on Forms (FonFs)

Wilkins (1976) uses the term synthetic approach in which linguistic items are presented independently and in succession until the parts of language form the whole gradually. Thus, learners encounter the predetermined linguistic structures at any given time. In similar vein, Long (1988: 15) defines focus on forms in which "… the L2 is broken down

into words and collocations, grammar rules, phonemes, intonation and stress patterns, structures, notions, or functions. The items in the resulting list(s) are then sequenced for presentation as models to learners in linear, additive fashion according to such criteria as (usually intuitively assessed) frequency, valence, or difficulty". He adds that synthetic syllabi are still widely taught throughout the world with the structural syllabus is the most prevalent one. These types of syllabi that focus on forms are often not formed and used because they are needed. The data and teaching procedures are constructed with the aim of presentation and practice of linguistic structures and there are no independent reasons created other than that (Long, 1988).

2.5. Focus on Form (FonF)

It is claimed by some researchers such as Krashen (1985) and Prabhu (1987), grammar instruction has the merest effect on language acquisition and, therefore, learners are to be exposed to meaningful input and meaningful interaction in the classroom context. However, some researchers like Ellis (1990) are opposed to this idea, claiming the valuable role of instruction to attain fluency and accuracy within the SLA context. According to Ellis (2006), instruction is still extant in boosting learners' comprehension and production of certain linguistic features and apprehending the metalinguistic functions.

The contradictory findings and views have brought about the integral role of attention to form along with the focus on meaning by giving rise to the idea of Focus on Form (FonF) (Long, 1991). Krashen's Comprehensible Input Hypothesis (1982), Long's Interaction Hypothesis (1983, 1996), Swain's Output Hypothesis (1985, 1995), and Schmidt's Noticing Hypothesis (1990, 1995) established the theoretical underpinning for the formation of FonF in language teaching (Ellis, 2001; Ellis et al., 2002; Loewen, 2004; Long, 1996; Schmidt, 2001; Swain, 1998). FonF has emerged in 1990s when the research results have shown that meaningful input is not sufficient and there is a need for formal intervention in SLA classroom context (Rassaei, 2012). "Focus on Form is a type of instruction in which the primary focus is on meaning and communication, with the learners' attention being drawn to linguistic elements only as they arise incidentally in lesson" (Long, 1991: 45-46). The latest research on SLA has progressively embraced FonF approach and its legitimacy (Doughty and Williams, 1998a).

A classification can be made according to whether FonF is proactive / preemptive or reactive. That is, what is defined as planned and incidental, respectively (Long and Robinson, 1998). Reactive FonF occurs when a learner fails to produce target linguistic form. In that case, the teacher or sometimes another learner provide a negative evidence by paying attention to the error. It is possible to address error explicitly by giving the correct form directly, or by giving metalinguistic information; or implicitly by reformulating the learner's utterance related to the target form (Ellis et al., 2001).

In addition, preemptive FonF can also be accepted as problem oriented, but the nature of the problem is inherently distinctive. Unlike reactive focus on form, which brings about a problem arisen during interaction, in preemptive focus on form, students or teacher attract attention to a linguistic structure as a result of perceived gap in knowledge even though there is not an actual problem encountered (Ellis et al., 2001).

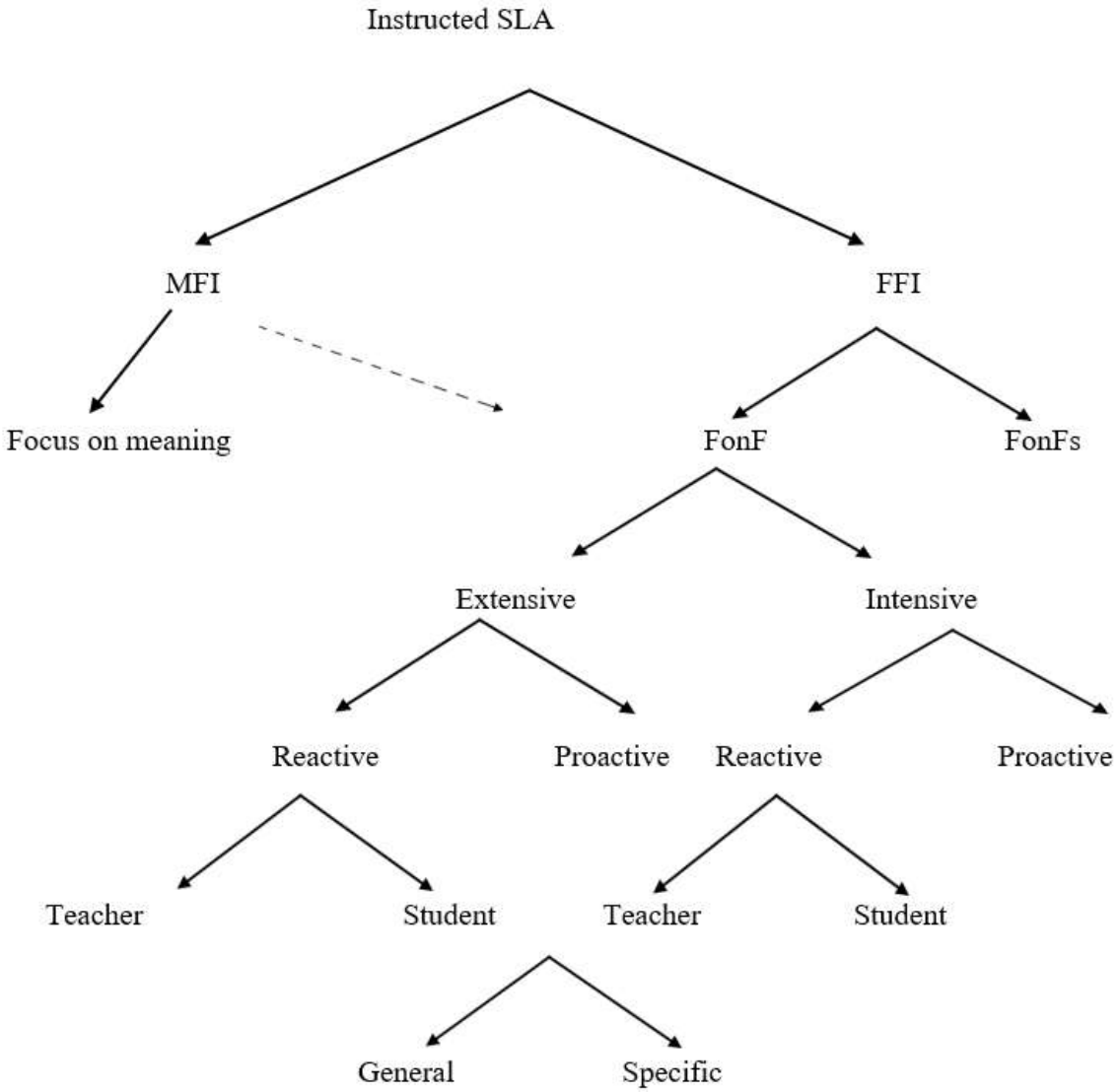


Figure 2. A taxonomy of instructed SLA (Source: Loewen, 2011: 578)

A more recent taxonomy is illustrated in Figure 2. The components of form focused instruction and the relationships among the constructs have been delineated based on the former taxonomies (Long and Robinson, 1998; Williams, 2005) by Loewen (2011) in Figure 2. Loewen (2011) links FonF with MFI a dashed line, showing the communicative aspect of FonF. Regarding the components and their operationalization, FonF is defined in several subcategories. In addition, Loewen (2011) briefly defines each taxonomic category. FonF aims at drawing attention to form within communicative context. In extensive FonF, instead of focusing on a single language form, it is usually paid attention to several items concisely. The need for treatment may arise from the student errors, i.e. reactive; and the errors are

corrected either by the teacher –teacher initiated, or by other students –learner initiated. On the other hand, attention may also be directed to form without any errors produced, i.e. proactive. The aim is to focus on linguistic forms which are perceived as problematic. If it is teacher initiated, teacher may either attract general attention to accuracy, or put emphasis on specific linguistic items. It can also be learner initiated when students ask about a particular form which they identify as problematic. In intensive FonF, one or two language forms are consistently given attention during a communicative activity. It can be reactive when attention is constantly drawn on a form as response to a specific error. On the other hand, when the target linguistic forms are seeded in the input, it is proactive in nature (Loewen, 2011).

Another definition of FonF instruction comes from Spada (1997) by drawing attention to the pedagogical efforts that are exerted to focus on form within meaningful activities; however, her definition distinguishes from Long's (1991) with a significant difference. While Long (1991) limits FFI to incidental and spontaneous attempts to highlight the related form, and thereby, it is reactive in nature, Spada (1997) incorporates proactive efforts into the definition of FFI by adding planned and predetermined attention to form. However, it is necessary to make a distinction between FonFs and Spada's FonF definition in that, the latter still takes place within a meaningful context. In this sense, one way of planned FonF can be given by providing large amounts of examples of a target structure in meaning-based activities (Loewen, 2011).

Accordingly, Ellis (2001: 1–2) later updates the definition of FFI stating that it can be "any planned or incidental instructional activity that is intended to induce language learners to pay attention to linguistic form. . . . Thus, FFI includes both traditional approaches to teaching forms based on structural syllabi and more communicative approaches, where attention to form arises out of activities that are primarily meaning-focused". In accordance with the definition of Ellis (2001), form-focused instruction can be accepted as a superordinate category that contradicts with meaning-focused instruction, and includes FonF and FonFs (Loewen and Sato, 2017). However, this definition too broad when compared to Spada's, as it also includes traditional instruction. The term FFI is not often adopted in such a broad manner, and, therefore; the type of form-focused instruction used in this study is limited to Spada's (1997) definition.

2.5.1. Planned Focus on Form

Input and production are the two dimensions to be regarded for planned focus-on-form.

Enriched input

Planned focus-on-form instruction is generally seeded with multiple examples of a targeted linguistic form which have been particularly designed or tuned accordingly. It is similar to structured input in this respect but they differ in their focus that enriched input is expected to trigger noticing within the meaning-focused tasks (Ellis, 2001).

Enriched input can be provided by means of input flood or input enhancement. In experimenting the input flood, a great deal of exemplars of a target form are embedded in a listening or a reading task without any additional attention getting device to the feature (Ellis, 2001). Input enhancement, on the other hand, requires input to be highlighted and more salient to the learners so that the targeted linguistic item attracts their attention and promotes acquisition (Sharwood Smith, 1993).

Enriched input can serve its function on its own within a reading text or a listening session. It is also possible to help learners incidentally attract attention to the target form by means of a communicative activity. For instance, comprehension questions that require the acquisition of the target form can be given while students are still focusing on meaning (Ellis, 2001).

Focused communicative tasks

These kind of tasks are an example of a planned FonF that make learners produce the target structure while working on a communicative task. They are similar to all communicative tasks in general, but they differ in intention that focused communicative tasks are designed not only to focus on meaning but also to lead learners to use the target forms. However, they also vary from the tasks that emphasize the linguistic function of a target structure as they are essentially centred on meaning rather than on form. Nonetheless, the difference between two is somewhat small (Ellis, 2001).

According to Loschky and Bley-Vroman (1993), focused communicative tasks are to be devised in the manner that learners are encouraged to use the target forms which they encounter in a meaning-focused activity incidentally. Optimally, learners need to use the target form which is favourable and essential to carry out the task. However, Schachter (1974) suggests that it is hard to succeed when learners try to abstain from using the related features they have difficulty in processing (Ellis, 2001).

2.5.2. Incidental Focus on Form

The two types, namely, focus on forms and planned focus on form, draw on L2 theories and pedagogy; however, the need for the implementation of incidental FonF stems from classroom practices. It mirrors the ongoing process in the course of focus-on-form instruction. Incidental FonF can be either preemptive or reactive. Both types may emerge as a result of perceived problem in communication or in form. In the former one, the teacher or a learner allocate some time to focus on a form that is considered to be challenging although they do not encounter any errors in the form nor do they experience difficulty in understanding the meaning in a communicative activity (Ellis, 2001).

On the other hand, reactive focus-on-form which has drawn considerable interest includes negative feedback given by the teacher to learner errors. It is possible to encounter this type of feedback in all kinds of form focused instruction, but it may vary in the selection of options depending on FFI type. The options require several ways of giving implicit and explicit negative feedback. It is wise to consider the distinction between implicit and explicit negative feedback as a continuum, and it conceivably has an effect on noticing and; thereby, on the acquisition the target forms (Ellis, 2001).

2.6. Input-based Instruction

Ellis (2012) has proposed an options-based approach to investigate form-focused instruction. It includes defining the main methodological options that teachers can adopt (Figure 3).

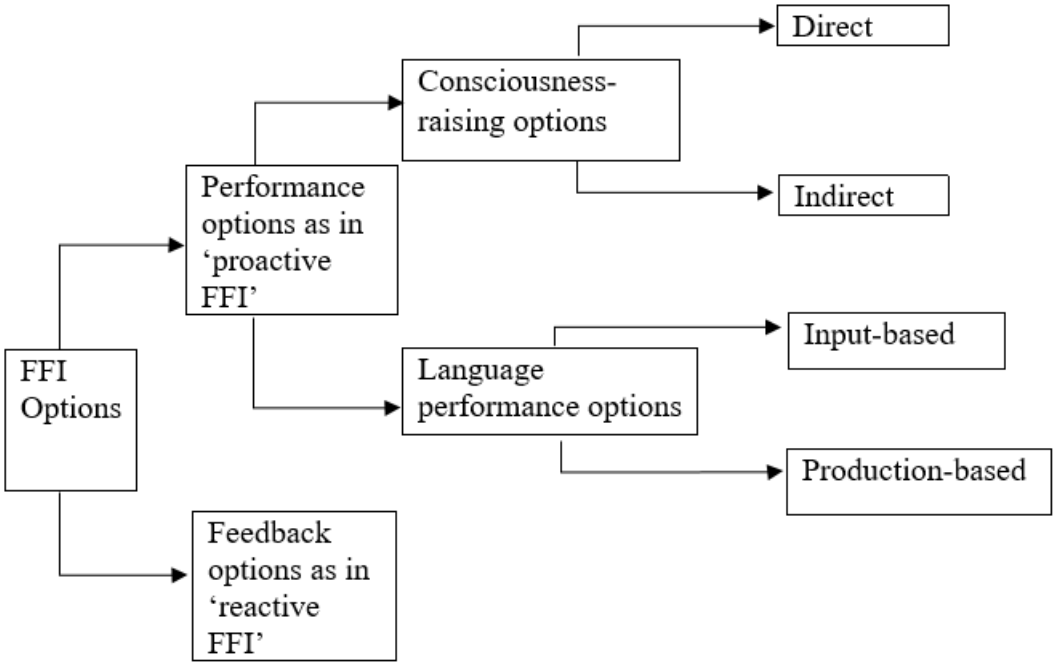


Figure 3. Key FFI methodological options (Ellis, 2012: 277)

Ellis (2012) suggested that it is better to categorize FFI according to instructional activities instead of abstract constructs. Between two FFI options, the performance options as in proactive FFI is handled thoroughly. It is possible to examine them in two conditions: (1) Consciousness-raising options which involve explicit instruction, including direct or indirect instruction and (2) language performance options which consist of different types of activities aimed to enhance learners L2 knowledge either with input-based instruction or production-based instruction. The former requires learner to comprehend the text while the latter pushes learner to produce language. For instance, it is possible to use text-manipulating by leading learners to produce sentences or more structured activities such as fill-in-the-blank exercise in production-based instruction. It is possible to combine different options with different instructional approaches.

Therefore, input-based instruction and output-based instruction have commonly examined within the FonF approach. Ellis (2012: 285) conceptualized the input-based instruction as an instruction which "involves the manipulation of the input that learners are

exposed to or are required to process". Input-based instruction includes focused, finely tuned input (Ellis, 1999), and it is required for learners to internalize the linguistic elements (VanPatten, 1996).

The input-based instruction aims to directly influence the interlanguage development process by treating the input that learners receive. Therefore, it comprises a form of comprehension-based language teaching (Gary 1978, Winitz 1981). The input can be served either unfocused with the aim of presenting roughly-tuned comprehensible input as suggested by Krashen (1981), or the finely-tuned input teem in a particular L2 structure. VanPatten (1996) has argued that this is essential in order for students to internalize certain components of L2 grammar (Ellis, 1999).

From a pedagogical view, input-based instruction is complementary to communicative language teaching (CLT) instead of replacing it (Ellis, 1993; VanPatten, 1996) and in terms of enhanced input, it is possible to achieve it through a 'focus on form' in which tasks have mainly focused on meaning in SLA context (Ellis, 1999). The most common way of practicing input-based instruction is to manipulate the input to make some linguistic forms more salient to learners. Enriched input is the typical form of this type of instruction (Moradi and Farvardin, 2016) and more pertinent to this study. Input enrichment as a form of input-based instruction can be treated as a FonF technique and aims at attracting learners' attention to form while undertaking meaningful activities (Long, 1991).

Supporters of FonF approaches suggest that language is learned best when the targeted linguistic items are emphasized and made more salient to the learner in meaningful communicative activities (Doughty and Williams, 1998c; Sharwood Smith, 1991; 1993; 1994). The input is manipulated so that L2 learners can notice and thus convert input to intake more easily (AsadiAmirabadi et al., 2014). Research on enriched input often draws on the Noticing Hypothesis by Schmidt (1990, 1994), as it suggests that noticing is a prerequisite to trigger the acquisition process. Learners must first notice exemplars of the target form in the input in which the saliency of the target form is artificially increased (Reinders and Ellis, 2009). The most common ways of presenting enriched input are input flooding and input enhancement. The first one requires the written text to be seeded with the target structure (Nation, 1990). With the aim of facilitating the acquisition of target

structures, learners are exposed to numerous instances. Input flooding aims to increase the frequency of target features without using any other attention attracting device (AsadiAmirabadi et al., 2014). It is possible to state that input flood is based on the idea that noticing is more probable in frequently encountered forms rather than infrequent ones and this raises the chance of acquisition (Wagner-Gough and Hatch, 1975).

According to Simard (2009), input enhancement is another way of attracting learners' attention to the target structure in an implicit and unobtrusive way. Input can be enhanced using some typographical techniques such as underling, highlighting, capitalization, font size, italics, and bolding to make the target features more visible (Doughty and Williams, 1998a). The target form is embedded in the reading passages with the aim of achieving a complementary effect of focus on both form and meaning (Izumi, 2002).

According to Ellis (2004), tasks focusing on certain linguistic forms (e.g. input enhancement) in a meaningful context support language learning. In this sense, input enhancement can be considered as FonF instruction as it combines the formal aspects of language with meaning (Boostan Saadi and Saeidi, 2018). It should be noted that principal premise of FonF instruction is that "meaning and use must already be evident to the learners at the time that attention is drawn to the linguistic apparatus needed to get the meaning across" (Doughty and Williams, 1998: 4).

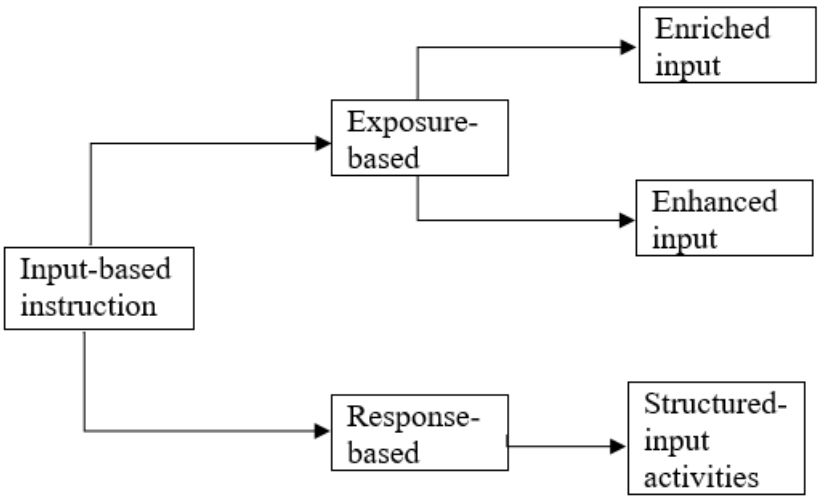


Figure 4. Input-based FFI options (Ellis, 2012: 285)

Similarly, Ellis (2012) illustrates different forms of input-based instruction. Accordingly, it can be divided into two options. First, exposure-based instruction can be adopted in which the target feature is enriched though either input flooding or input enhancement. He defines the former one as the high frequency of target forms available to the learner. Enhanced input, on the other hand, requires target features to be more salient in some way- through underlining, highlighting, and bolding. Secondly, response-based option seeks for the indication of L2 processing and aims to show whether learners understand the meaning of the target forms. The different options in input-based instruction are shown in Figure 4 above.

The activities used in response-based instruction are often nonverbal or minimally verbal in the form of structured input activities. For example, learners are expected to match or choose the correct picture which is appropriate for the given situation like "The dog was bitten by Mary" (Ellis, 2012: 285). Other examples of structured-input activities are following a direction, drawing a picture, choosing an option, or indicating if they agree or not. Learners are not expected to involve in production of the target features; instead, they attend to the new forms in the input to acquire them.

An example of a structured-input task (Ellis, 1998: 44)
Do you agree or disagree with these statements?
1. Quiet people are boring.
2. I am bored when someone tells a joke.
3. People who gossip a lot are very irritating.
4. I get irritated with small talk.
5. It is interesting to talk about yourself.
6. I am interested in people who always talk about themselves

Ellis summarizes the findings of the input-based instruction studies. He asserts that since the results are rather mixed, it is only possible to reach tentative conclusions. Accordingly, input flooding can be effective to some extent but it may fail to eliminate errors in L2 learners' interlanguage (Trahey and White, 1993). In addition, the positive effects of input flooding may fade away eventually if the exposure to the target forms is ceased

(Trahey, 1996). Furthermore, input flooding may not be a good option and effective in learning unobtrusive features like third person -s (Loewen et al., 2009).

On the other hand, enhanced input is accepted as useful in noticing and learning the target forms (Jourdenais et al., 1995) while it may be ineffective in learning complex features (Reinders and Ellis, 2009). Furthermore, there are not any clear conclusions as to which type of input-based instruction prevails the other (White, 1991). If combined with explicit instruction, input-based instruction may lead to better acquisition of the target features (Williams and Evans, 1998), but not always (Hernandez, 2011). Lastly, when the input-based instruction achieves clearly demonstrating the meaning of the target form, the findings show that it may be as effective as explicit instruction (Doughty, 2001), or more effective than explicit instruction (Takimoto, 2008). Yet, input-based instruction often yields less success if production practice exists along with explicit instruction. The studies above do not prove the effectiveness or ineffectiveness of input-based instruction compared to explicit instruction. Instead, they propose that the probability of success may increase when explicit instruction accompany input-based instruction (Ellis, 2012).

2.7. Theoretical rationales for input-based instruction

Studies on input-based instruction have been informed by several L2 acquisition theories (Ellis, 1999). It can be possible to draw on some theories such as Universal Grammar by Chomsky (1981), information processing theories, and skill-learning theories. In addition, it is useful to explicate the noticing hypothesis by Schmidt (2001), the consciousness-raising approach by Smith (1991), and the comprehensible input hypothesis by Krashen (1985) that have paved the way for input-based instruction.

2.7.1 Universal Grammar

Universal Grammar (UG) (Chomsky 1981, Cook 1988) is a mentalist theory, whose basic postulate is that humans possess an innate language faculty and a set of grammar structures are genetically wired in human brains. This faculty includes a finite set of principles and parameters, and learners are supposed to find out which parameters are to be set for a particular language. In this case, input is considered to stimulate and activate

Universal Grammar letting learners choose the right parameters in the language they are currently learning. Exposure to input at a minimum level is enough to trigger to set parameters immediately (Cook 1989). In addition, according to Universal Grammar, negative evidence is not required for parameter setting through error correction, claiming that it positive evidence is sufficient in acquiring the language (Ellis, 1999).

2.7.2. Information Processing Theories

Unlike Universal Grammar, information-processing theories assert that there is no difference between the processes of language learning and the other types of learning. That is, information in the input is processed by general cognitive mechanisms. According to the noticing hypothesis (Schmidt 1990; 1994; 1995), attention to linguistic structures in the input is required for intake to take place. However, when the intake occurs, it is not guaranteed that it ends up with acquisition because noticing is essential but not enough to incorporate the information into the interlanguage system (Ellis, 1999). Furthermore, information-processing theory suggests that humans have finite number of processing capacities. Underlying filter theories propose the term selective attention to refer to the limited capacity channel for paying attention in which information is inevitably in competition for limited attentional resources (Robinson, 1995).

2.7.3. Skill-learning Theories

According to skill-building theories, new skills are learned through practice. For instance, Anderson's Adaptive Control of Thought Model (see Anderson 1976; 1980; 1993) deals with language acquisition like other types of skills that shows a development from a declarative knowledge to a procedural knowledge stage at which knowledge becomes automatic. Skill-based theories presuppose a great quantity of input to ensure sufficient practice to reach automatization. This suggestion is contrasted with Universal Grammar as UG supports the idea that minimal exposure to input is enough to trigger and set the parameter. In addition, proceduralized knowledge is regarded as quite distinctive along with particular sets of skills used in comprehension and production in skill-learning theories (see Anderson 1993:37-38). In this case, it can be inferred that large amounts of input provide more practice to improve comprehension rather than production via input-based instruction.

Therefore, it is possible to state that skill-based theories are different from information-processing theory in the sense that the latter alleges that input-based instruction will contribute to the development of both receptive and productive knowledge as they rely on the same underlying source (Ellis, 1999).

2.7.4. Comprehensible Input Hypothesis

In his work as an update for the input hypothesis, Krashen (1992) explains comprehensible input within the scope of the input hypothesis. He suggests that "the input hypothesis states that we acquire language by understanding messages, that 'comprehensible input' (CI) is the essential environmental ingredient in language acquisition. Comprehensible input is necessary for language acquisition, but is not sufficient" (Krashen, 1992: 409). He claims that the input should be in the form of i+1 which is a bit beyond the current level of L2 learner. It is proposed that learning progresses along the natural order, and learners acquire language when they are exposed to i+1 comprehensible input which leads them move to the next stage of competence (Krashen, 1985). However, as quoted above, he admits that although it is indispensable, comprehensible input is not enough to acquire L2.

2.7.5. Noticing Hypothesis

It has been widely agreed that input is indispensable in the acquisition of L2; however, some scholars go beyond the idea of comprehensible input (Krashen, 1985), stating that it is essential but inadequate (Ellis, 1994; Larsen-Freeman and Long, 1991; Long, 1996). Considering that not all of the input that learners comprehend becomes intake, current research in SLA and cognitive psychology have investigated the function of attention and noticing in compromising input and learning, and reached a consensus that attention is required for learning to occur (see Robinson, 1995; Schmidt, 1990; 1995; 2001; Shintani, 2015; Tomlin and Villa, 1994).

Schmidt (2001) focuses on the necessity of noticing in his noticing hypothesis by stating that "input does not become intake for language learning unless it is noticed, that is, consciously registered. SLA is largely driven by what learners pay attention to and notice in

target language input and what they understand the significance of noticed input to be" (Schmidt, 2001: 3-4). According to Schmidt (2001: 30), "people learn about the things that they attend to and do not learn much about the things they do not attend to".

2.7.6. Consciousness-Raising Approach

In concordance with Schmidt's Noticing Hypothesis (1990), Smith (1991) has put forward consciousness-raising approach suggesting a deliberate attention to linguistic forms facilitates the target language learning. "Although incidental learning is effective, intentional learning is facilitative in the context of classroom, as well" (Jahangard and Akbari, 2012: 33). Similarly, some researchers have underscored the role of noticing and attention and developed consciousness-raising techniques to promote L2 learning (Smith, 1991; White, 1998).

According to Ellis (2012), there are many studies that have examined the relationship between explicit and implicit knowledge and the effect of consciousness-raising on them. It is asserted that consciousness-raising tasks serve explicit learning, so only a little explicit knowledge can be converted into implicit knowledge. However, explicit knowledge supports the development process of acquiring implicit knowledge (see Ellis, 1994). Therefore, consciousness raising may help learners notice the gap in their L2 and even if not there is an immediate effect on communication, it may pave the way for the development of implicit knowledge required for communication. Lantolf and Thorne (2006) also suggests that when explicit knowledge is automatized, it contributes to communicative skills, as well. This argument is also recognized by skill-learning theory (DeKeyser, 1998).

2.8. Output-based Instruction

French immersion programs set the heather alight when emerged in Canada in the late 1960s. A vast number of evaluations were carried out and the results were promising and affirmative in acquiring the target language. The findings showed that the French immersion students got similar scores with their francophone peers on listening and reading comprehension tests. However, they lagged behind in speaking and writing skills of their francophone counterparts. These findings tended to discredit the validity of the input

hypothesis and arose questions about the effectiveness of comprehensible input (Swain, 1985), especially about the suggestion that comprehensible input was "the only true cause of second language acquisition" (Krashen, 1984: 61). It is surely beyond doubt that immersion students were exposed to plentiful comprehensible input (Swain, 2005).

It was thereafter that possible alternations were looked for. Swain (1985) put output hypothesis forward as an explanation for the limited success of immersion classrooms grounding her research on formal and informal observations. It was observed that students did not produce enough utterances in French while they tended to talk more in English in the allocated time of the day (Swain, 1988). Besides, immersion students were not pushed to speak in French accurately and appropriately by their teachers. It was that Swain (1985) attributed to "comprehensible output" in her output hypothesis. In her article, Swain (1985: 248-249) explained the situation as the following:

> In order for native-speaker competence to be achieved, however, the meaning of "negotiating meaning" needs to be extended beyond the usual sense of simply "getting one's message across." Simply getting one's message across can and does occur with grammatically deviant forms and sociolinguistically inappropriate language. Negotiating meaning needs to incorporate the notion of being pushed toward the delivery of a message that is not only conveyed, but that is conveyed precisely, coherently, and appropriately. Being "pushed" in output, it seems to me, is a concept parallel to that of the i+1 of comprehensible input. Indeed, one might call this the "comprehensible output" hypothesis.

Accordingly, Vanpatten (2004: 2) also suggests that "using a form in one's output is direct path to language acquisition". In addition, Swain (1985: 249) claims that output may function as "the trigger that forces the learner to pay attention to the means of expression needed in order to successfully convey his or her own intended meaning". Output is of significance with regard to learners' active deployment in processing language which, otherwise, may not possible simply with comprehension (Izumi, 2002). Some scholars have argued that input may not decisively sufficient in the acquisition of language and proposed that the pivotal role of output cannot be ignored as attributing language acquisition to input is far from reality (e.g. Izumi and Bigelow, 2000; Izumi, 2002; Toth, 2006).

As mentioned before, Ellis (2012) also categorizes FFI according to instructional activities instead of abstract constructs. The language performance options as one of the two FFI options is investigated. It is possible to examine them in two conditions. The second option, more specifically, production-based instruction as one of the language performance options is examined. He suggests that production practice can be in various forms such as text-creation activities which require learners to produce language in a structure-based production activity. In this sense, production-based instruction, within language performance options as one of methodological options in FFI proposed by Ellis (2012), may refer to output-based instruction. Here are examples of production-practice tasks shown below.

Examples of Production-Practice Tasks (Ellis, 1998:48)

a) Text manipulation

Fill in the blanks in these sentences.

1. Mr. Short was born ___ 1944 ___ a Tuesday ___ May ___ two o'clock ___ the morning.
2. Mr. Long was born ___ 1955 ___ a Saturday ___ November ___ five o'clock ___ the afternoon.

b) Text creation

Find three people who know

- the year they were born
- the day they were born
- the time of day they were born

Complete this table about the three people.

Name	Year	Day	Time
1.			
2.			
3.			

Now tell the class about the three people you talked to.

The output-based instruction can be based on Swain's (1995; 2000) Output Hypothesis. According to Swain (2000: 99), "output-based instruction may stimulate learners to move from the semantic open-ended strategic processing prevalent in comprehension to the complete grammatical processing needed for accurate production, and students' meaningful production can lead to language development". Unlike the ideas in the 1980s that output is the result of learning and speaking derives from acquisition (Krashen, 1985), Swain (1985; 1995; 2000; 2005) argues in her Output Hypothesis that output cannot merely be considered as the outcome of language acquisition but it also plays a vital role in achieving target like proficiency. It is suggested that production helps learners move from semantic processing to syntactic processing that is required to notice the gap in their L2 and develop accuracy and fluency in the target language (Smith, 2015).

2.9. Three functions of output

Output is seen as a proof and an end product of L2 acquisition and it is not considered as having a role in acquiring the language (Krashen, 1989). However, the output hypothesis argues against this idea and asserts that output contribute to L2 acquisition in various ways. One of the benefits of producing the target language is to improve fluency in terms of practicing the language. It is true without doubt, but it is crucial not to confuse it with the saying that 'practice makes perfect'. Considering that fluency and accuracy are two distinct aspects of language, practice helps develop fluency, but not necessarily accuracy (Ellis, 1988; Schmidt, 1992). Other functions are mainly relevant to accuracy rather than fluency (Swain, 1995).

Three functions of output

1. The noticing/ triggering /consciousness-raising function
2. The hypothesis-testing function
3. The reflective / metalinguistic function

2.9.1. Noticing

Firstly, output promotes noticing (Swain and Lapkin, 1995). When using the target language, L2 learners may notice that there is a gap between what they mean and what they

can express, leading them to understand what they do not know or lack. Schmidt and Frota (1986) suggest the principle that L2 learners need to 'notice the gap' which states that 'a second language learner will begin to acquire the target-like form if and only if it is present in comprehended input and "noticed" in the normal sense of the world, that is, consciously' (Schmidt and Frota, 1986: 311). In some cases, L2 learners may experience difficulty in producing the language and realize some problems they need to explore about their L2 (Swain, 1993). Noticing may stimulate cognitive processes that can build new linguistic knowledge or reinforce learners' present knowledge. (Swain and Lapkin, 1995). That is, it triggers the internalization of new forms or consolidate the knowledge that has already existed (Swain, 1995).

2.9.2. Hypothesis Testing

It is suggested that while producing the target language, learners formulate hypotheses from their spoken and written errors to see how the language works. To test a hypothesis, L2 learners are required to involve in a kind of production, i.e., say or write something. Thus, according to Swain (1995: 126) "producing output is one way of testing a hypothesis about comprehensibility or linguistic well-formedness". Output is not only about receiving more input through feedback. Along with some factors such as comprehensibility and learner-internal factors, learners choose the output they attend to and only test out what they formulate as a hypothesis. The process in which output is adjusted or revised can be regarded as a sign of learners' applying interlanguage resources. L2 learners experiment new language forms and structures, modify their output, and develop their interlanguage. Moreover, a large number of research and theoretical assumptions have insinuated that output, especially erroneous output may be the indication of hypothesis testing about what works and what does not within the L2 framework. This output may then call for feedback which enables learners modify their output (Swain, 1995).

2.9.3. The reflective / metalinguistic function

It has been stated that hypothesis testing is a function of output. It means learners speculate about the right usage of a language form or structure. Rather than asking about their hypothesis, it is often deduced from learners' production, i.e. output. On top of testing

hypothesis, if the tasks that encourage reflection are provided, it can be observed how they reflect on their output. At this level, output carries out a metalinguistic function and leads L2 learners to internalize it. However, the tasks designed in many studies are meaning oriented and focus on communication; therefore, they often lack this reflective process. According to Ellis (1982), one of the characteristics of communication tasks are being focused on meaning rather than form (Nobuyoshi and Ellis, 1993). However, it is surely possible that learners negotiate about a language form while they use the target language to convey the message (Swain, 1995).

In terms of language pedagogy, accuracy can be improved considering the three functions of output in second language learning and teaching. The growing interest in "focus on form" has the issue reemerged in language education. Communicatively-oriented second language teaching environment in which the focus is on providing large amounts of input has demonstrated that input-rich curriculum is not sufficient and there is a need for focus on form approach to ameliorate the learner performance (Swain, 1995).

2.10. Receptive and Productive Knowledge

Word knowledge is a complex issue to define. Learners can understand and recognize a word when they encounter it, but they may have difficulty in producing it in a communicative action. Learners are often able to produce less words correctly and appropriately than they comprehend. The gap between what they comprehend and what they can produce indicates the difference between receptive and productive L2 knowledge. Schmitt (2000) refers to receptive knowledge as passive vocabulary due to the passive attention of learners in the learning process. They can comprehend and identify L2 vocabulary in a reading text or conversation. On the other hand, productive knowledge is referred to as active vocabulary because learners are able to produce L2 words in an oral or written communicative activity. Therefore, while receptive knowledge is concerned with reading and listening skills, productive knowledge is highly related to writing and speaking skills. It may not be possible for learners to be competent in both receptive and productive knowledge for all L2 forms (Sarıoğlu, 2020). Accordingly, Table 2 illustrates the components of vocabulary knowledge. Nation (2001) categorizes different facets of

receptive and productive word knowledge in accordance with L2 learners' mastery of these lexical aspects.

Table 2

The receptive and productive word knowledge (Nation, 2001: 27)

Form	spoken	R: What does the word sound like? P: How is the word pronounced?
	written	R: What does the word look like? P: How is the word written and spelled?
	word parts	R: What parts are recognizable in this word? P: What word parts are needed to express the meaning?
Meaning	form and meaning	R: What meaning does this word form signal? P: What word form can be used to express this meaning?
	concept and referents	R: What is included in the concept? P: What items can the concept refer to?
	associations	R: What other word does this make us think of? P: What other words could we use instead of this one?
Use	grammatical functions	R: In what patterns does the word occur? P: In what patterns must we use this word?
	collocations	R: What words or types of words occur with this one? P: What words or types of words must we use with this one?
	constraints on use	R: Where, when and how often would we expect to meet this word? P: Where, when and how often can we use this word?

Note: R = receptive knowledge, P = productive knowledge

2.11. Previous Studies

In this part, previous research on input-based instruction, and the comparative and combined effects of input-based instruction and output-based instruction is discussed.

2.11.1. Research on Input-based Instruction

There are a number of study that have explored the effect of input flood / input enrichment / enriched input and input enhancement / enhanced input as two forms of input-based instruction on the acquisition of grammatical structures. Some of outstanding studies focus on the impact of input flood (e.g., Mahvelati and Mukundan, 2012; Okyar and Ekşi, 2017); some attract their attention to the benefits of input enhancement (e.g., Asaei and Rezvani, 2015; Javadi and Bagheri, 2017; Nahavandi and Mukundan, 2013); and the others examine comparative (e.g., Lee and Lee, 2012; Reinders and Ellis, 2009; Szudarski and Carter, 2016) and combined (e.g., AsadiAmirabadi et al., 2014) effects of input flood and enhancement.

Mahvelati and Mukundan (2012) investigated the role of input flood in terms of different cognitive styles namely, field-dependent and field independent on the acquisition of collocations. They found that input flood group showed a better performance. The participants were 64 EFL learners and the study was designed to include two intact classes, as a control or an experimental group. The results suggested that experimental group outperformed the control group proving the effect of input flood on collocation learning. Moreover, it was reported that the field-independent learners benefited more from this type of treatment than the field-dependent learners.

In another study, Okyar and Ekşi, (2017) investigated the effect of negative evidence and enriched input on the acquisition of verb-noun collocations. A total of 52 EFL learners employed for the study. There were two experimental group, namely the negative evidence and enriched input groups. The data was collected through recognition and production tests.

The findings revealed that both groups made considerable progress in production test while negative evidence group surpassed enriched input group in the form recognition test.

As for the input enhancement, Nahavandi and Mukundan (2013) conducted a study to see the potential gains of textual input enhancement (TIE) and explicit rule presentation on learning simple past tense. A total of 93 Iranian EFL learners took part in the study and the three intact classes were randomly distributed to either TIE, TIE plus explicit rule presentation, and the control groups. They were given three reading texts with comprehension questions. The findings of the multiple-choice test displayed a significant difference among pretest, first posttest and delayed posttest offering the positive effect of the treatment. Furthermore, it was found that TIE+ rule presentation group significantly surpassed the control group in immediate and delayed posttests.

In addition, Asaei and Rezvani (2015) conducted research to explore the effects of explicit and implicit teaching on collocations. The forty-five EFL learners from three intact classes were chosen for a control and two experimental groups. In implicit group, learners were presented reading texts with enhanced input while the target collocations in the texts were explicitly drawn attention, explained, translated, and highlighted in the explicit group. The learners were to form sentences out of 20 given words on the posttest. The analysis of the data revealed that the explicit group outperformed both the control and the implicit groups in using collocations.

In their study, Javadi and Bagheri (2017) examined the impact of enhanced input on L2 learners' grammatical awareness of target grammatical forms. The participants included 104 learners. They were assigned to four treatment groups in which two of them were instructed through texts with enhanced input while the others were exposed to unenhanced input. The findings revealed that textual enhancement groups outperformed the unenhanced input groups, suggesting the boosting effect of enhanced input on grammatical awareness of target structures.

Furthermore, a number of researchers have dealt with the comparative effects of enriched input and enhanced input. For example, Reinders and Ellis (2009) investigated the relative effects of different types of input-based instructions, enriched and enhanced input,

on the acquisition of a grammatical structure. Participants comprised of 28 students studied in an English language school. They were required to do meaning focused tasks including the target forms. To test their performance, a timed and an untimed grammaticality judgment test were administered. The results demonstrated that input-based instruction was successful in improving the L2 knowledge. However, there was not found an additional benefit of paying attention to the target structure for the enhanced input group.

In their study, Yeon-hee and Hee-kyung (2012) explored the effect of three input modifications, containing textual enhancement, semantic enhancement, and enriched input on word learning. The participants included 116 six-grade EFL learners. In reading classes, three different input enhancement techniques were instructed in experimental groups while the control group was instructed with regular texts. The results indicated that while the visual input enhancement and the control groups fell behind the semantic enhancement group in meaning recognition test. On the other hand, in the form-recognition post-test, the input flooding and visual input groups did significantly better than the others. However, no significant difference was found among the groups in meaning recognition in delayed posttest.

In an another study, Szudarski and Carter (2016) sought to shed some light on the comparative benefits of two instruction types (i.e., enriched input and enriched input + enhanced input thought underlining) in teaching collocations. A total of 41 learners were participated in one of the two experimental groups and one control group. The experimental groups read some stories for three weeks while the control group only attended pre- and the posttests. The results revealed that the learners in the input flood + input enhancement group showed a better performance than the input flood group.

In an another study, AsadiAmirabadi et al. (2014) conducted research to see the comparative and combined gains of two types of input-based instruction in learning EFL. Participants included 75 EFL students and they were divided into three experimental groups, input flood, input enhancement, and a combination of both. The results illustrated that the treatment, in which learners were exposed to target structures in the form of the combination of enriched input and enhanced input, achieved better performance compared to the ones who were encountered one form only.

Lastly, Bayrak and Soruç (2017) studied the influence of visual enhancement and processing instruction as two forms of input-based instruction on the acquisition of a grammatical structure. In total, 43 EFL learners took part in the study and they were divided into two treatment groups. The performances of the participants were measured through interpretation and production tasks. It was concluded that both visual enhancement and PI groups made progress on the interpretation test. However, they failed to develop on the production test.

2.11.2. Research on Comparative Effects of Input-based Instruction and Output-based Instruction

Most of the output-based instruction studies tend to be comparative in nature as the researchers often treat input-based and output-based instruction as mutually exclusive and the relative effect of two practices attract researchers' attention more (e.g., Aydoğan, 2010; Boostan Saadi, and Saeidi, 2018; Gholami and Farvardin, 2017; Kalanzadeh et al., 2018; Rassaei, 2012; Rezvani, 2011; Salimi and Shams, 2016). In addition, more comparative research has been done using processing information as a form of input-based instruction rather than input flood or input enhancement (e.g., Bayrak and Soruç, 2017; Benati, 2001; 2005; Erlam, et al., 2009; Farley and Aslan, 2012; Keating and Farley, 2008; Morgan-Short and Bowden, 2006; Toth, 2006; Vanpatten et al., 2009).

First of all, Izumi and Bigelow (2000) scrutinized whether the noticing function of output helped ESL learners recognize and produce the target grammatical structures. Both the output and comparison group received the same input containing the target forms. However, while the experimental group was required to produce some output using the related structures in essay-writing and text reconstruction tasks, the control group only completed some comprehension tasks. The results of the multiple choice recognition test and the picture-cued production test suggested that there was not a significant difference between two groups. Yet, it was concluded that the potential effect of output ought not to be underestimated and output activities still may help L2 learners use the target structures accurately in the long term.

Benati (2001) compared the two types of form focused instruction; processing instruction as a type of input-based instruction and output-based instruction. Input group received comprehension practice while output-based instruction involved written and oral practice of the target grammatical structure. According to the findings of interpretation task, written completion text and production task, it was indicated that the group received input-based instruction outperformed the output group in the interpretation task. However, the participants in both groups showed similar progress in the production test. In an another study, Benati (2005) examined the role of PI, traditional instruction and output-based instruction in teaching a grammatical structure. The participants included Chinese and Greek English learners living in their own countries. The learners in each country formed three groups which received input-based (PI), meaning-based output, and traditional instruction, respectively. The results of interpretation and production tests showed that input groups made considerable gains in the acquisition of the target structure. While the input group surpassed the others in the interpretation test, all groups made similar progress in the production test.

Furthermore, Toth (2006) compared the relative impact of input-based instruction by means of processing instruction and communicative output tasks. A total of 80 L2 Spanish learners were assigned to two experimental and one control groups. After seven treatment days, grammaticality judgment and guided production tests were given to measure the performances of L2 learners on the related grammatical structure. The data displayed similar improvements for both groups on the grammatically judgement test while the output group outperformed the others in the production task by using the target form more frequently.

Similarly, Morgan-Short and Bowden (2006) examined the effects of input-based instruction based on PI model and output-based instruction on the development of L2 learners' Spanish direct object pronouns. There were three groups including one control and two experimental groups with 45 participants. During the treatment session, input group were required to interpret while the output group had to produce the target form to undertake the meaningful activities. Considerable progress was made by two experimental groups on interpretation and production tasks. Moreover, experimental groups outperformed the control group on interpretation tasks. However, only the output group surpassed the control group on production tasks.

In their study, Keating and Farley (2008) investigated the comparative effects of PI, meaning based output instruction, and meaning-based drills instruction on learning a grammar form. Participants included 87 learners of Spanish and they were divided into three experimental groups. The results of interpretation and production task administered before and immediate after the treatment including delayed posttest, demonstrated that input group considerably did better than the meaning based drills group, but not than the output group on the interpretation task. However, the input group fell behind the other two experimental groups on the production task. On the other hand, Vanpatten et al. (2009) conducted a partial replication of Keating and Farley's (2008) study. A total of 108 L2 learners took part in the study. Classes were formed in three groups; PI, meaningful output, and control group. Unlike to Keating and Farley's (2008) study, the findings of interpretation and production tests illustrated that input group was superior to output group on the interpretation test. In addition, both input and output groups showed equal progress on the sentence level production test.

In addition, Erlam, et al. (2009) explored the effect of output-based and input-based instruction in the form of PI on the acquisition of indefinite article. A total of 51 L2 learners participated in the study. Participants were from five intact classes in two different language schools (two input, two output, and one control group). Learners received two consecutive days of treatment lasting two hours each day. According to the results, it was ascertained that both treatments significantly improved the performance of the experimental groups on learners' implicit and explicit knowledge of the target form comparing to the control group.

In her thesis, Aydoğan Baykan (2010) studied the effect of input-based and output-based instruction on the acquisition of grammatical structures in EFL context. The participants were 34 preparatory school EFL students at a university and they were divided into two groups, input and output groups. The data were collected from accuracy and production tests used in pre- and posttests The results demonstrated that no significant difference was found between the input and output groups with regards to comprehension and noticing. On the other hand, output group were significantly performed better than the input group in producing the target forms.

Rezvani (2011) compared the effect of output task and input enhancement in learning collocations. In this study, there were 90 adult EFL learners and assigned to three groups; output task, input enhancement, and control groups. They were all given reading texts and comprehension questions; however, the first experimental group was required to do some output tasks and the second experimental group had target collocations visually enhanced. The findings showed significant effects of input enhancement and output tasks on the acquisition of collocations while the former outperformed the latter one although it was not a statistically significant difference.

Moreover, Farley and Aslan (2012) conducted an experiment to explore the effect of an input-based instruction and an output-based instruction on the acquisition of a grammatical form. Participants consisted of 64 Turkish EFL learners and they were divided into three groups including a control group. Input group received processing instruction with structured input activities; on the other hand, output group received meaning-based output instruction with structured output activities. Both treatment groups made equal gains in the interpretation task. However, output group surpassed the other groups in the production task.

In his study, Rassaei (2012) compared the effects of input-based and output-based instructions on the development of L2 grammar. Five intact classes comprising 129 EFL learners were assigned to control, textual enhancement, input enrichment, meaningful output, and explicit instruction groups. The data were gathered through grammaticality judgment, multiple choice grammar, and written production tests. The findings demonstrated both input-based and output-based instruction contributed to the improvement in L2 knowledge. In addition, the results of the experiment found clear support for the claim that enhanced input delivered better results than the input which was presented the target structures abundantly but unobtrusively. Furthermore, although they had similar results in grammaticality judgement test with the ones in textual enhancement group, output group statistically outperformed the others in multiple choice grammar test and written production test.

In another comparative study, Salimi and Shams (2016) conducted an experiment to see the impact of input-based and output-based tasks on writing performance of EFL learners. The participants were 35 EFL learners who were divided into two as input and

output groups. After six treatment sessions, the writing task which was the same as the pretest, was given as the posttest. The writings were assessed according to accuracy, fluency, and complexity. The results offered overwhelming evidence for the efficacy of output-based tasks over learners' autonomy in writing.

In their study, Ahmadi and Panahandeh (2016) examined the effect of input-based and output-based instruction on learning English phrasal verbs. A total of 73 L2 learners were divided into two groups. The data was obtained from a Test of Phrasal Verbs which was implemented as pretest and posttest. The results showed that output group outscored input group, suggesting that L2 learners learned better with output-based pedagogical approach. In addition, they stated that there was no significant difference between genders in either input group or output group.

In their study, Gholami and Farvardin (2017) compared the impact of input-based and output-based instructions on the acquisition of collocations. The participants were 80 EFL learners from three intact classes and they were assigned to the input group, the output group, and the control group. Four reading passages with 20 collocations were used in the study. The input group encountered the target structures through input flood plus input enhancement; the output group were required to produce some sentences after the instruction; and the control group simply received reading texts and translated L2 collocations when necessary. The data was collected through 20 fill in the blanks and 10 distractors productive test. The results displayed that both input and output groups had positive effect on improving the learners' productive knowledge of the target collocations. However, no significant difference was found between two experimental groups.

Boostan Saadi and Saeidi (2018) studied the relative effects of input-based and output-based instruction on learning grammar. There were 60 participants and they were assigned to input, output, and control groups. The target grammatical structures were highlighted within reading texts in the input group while the output group was to form some sentences based on the reading texts. On the other hand, traditional grammar instruction was given to the control group. The findings indicated that both the input and output groups preceded the control group; however, the input-based group did better than the output-based group in acquiring the target forms.

Kalanzadeh et al. (2018) investigated the mixed impact of visual input enhancement, explicit instruction, pushed output, and corrective feedback on the acquisition of conjunctive adverbs. Participants were 83 intermediate EFL students and they were assigned to one of the four groups including the control group, explicit instruction + pushed output + explicit corrective feedback group, visual input enhancement + pushed output + implicit corrective feedback group, and visual input enhancement + enriched input group. The posttest scores suggested that all combined treatment groups were found effective in terms of learners' intake of the conjunctive adverbs. In addition, explicit instruction + pushed output + explicit corrective feedback group outperformed the others while visual input enhancement + pushed output + implicit corrective feedback group and visual input enhancement + enriched input group followed them respectively.

In a recent study, Namaziandost et al. (2019) compared the effectiveness of input-based and output-based activities on productive knowledge of vocabulary among pre-intermediate EFL learners. A total of 54 EFL learners were assigned to either two experimental groups, i.e. the input-based group and the output-based group, or the control group. A productive vocabulary test was applied as pre-, post-, and delayed posttest. The findings revealed that while experimental groups did better than the control group, no significant difference was found between the performances of the input-based group and the output-based group. In another study, Farahian and Avarzamani (2019) studied the effectiveness of different instructional models, including processing instruction, dictogloss, and output instruction, on the acquisition of passive voice. There were 51 pre-intermediate EFL students and they were assigned to three experimental groups. The data gathered from interpretation and production tasks displayed that the processing instruction group surpassed the other groups in both tasks.

Kaivanpanah et al. (2019) explored the depth of processing in different instructional conditions and Iranian learners' interpretation of English inversion structures. Input-based instruction including two groups, textual enhancement and processing instruction group, and output-based instruction including text editing group were compared to observe the learners' noticing level and their ability in interpreting the target structures. The results of pretest and posttest and think-aloud protocols were analyzed and it was found that each group had an

impact on learners' level of awareness and interpreting skills with varying degrees. While there was not a significant difference between processing instruction group and text editing group on posttest, PI group outperformed the latter on the delayed posttest. It was also suggested that higher level of awareness promoted their interpretive skills.

In their study, Hassanzadeh and Salehizadeh (2020) explored the impact of focus on form (FonF) on the level of learners' retention of English word stress. The study consisted of four groups: output, input-enhancement, corrective feedback, and control. The data gathered from immediate and delayed word-reading tests. The findings showed the superiority of output group over other while input enhancement group did better than the corrective feedback group in immediate posttest. The effects of three instruction types did not last long, though.

Mostafa and Kim (2021) examined the relative impact of input and output based instruction on the acquisition of third person singular 's' and future conditional if-clause. Three intact classes including 72 ESL learners were assigned to input based group, output based group, or control group. Processing instruction was delivered in the input-based group while the other experimental group received output based instruction. Both groups received explicit instruction on the target grammatical structures before completing related instructional activities. The data gathered from error correction and oral narrative production tests indicated that both experimental groups showed greater performance than the control group in the error correction test. In addition, the output group did better than the input group in the oral narrative production test which was designed to measure automatised explicit knowledge of the learners.

On the other hand, Duong et al. (2021) investigated the effects of input-based and output-based instruction on vocabulary learning. A total of sixty EFL learners participated in the research. The experimental group carried out four input and four output tasks and the data were collected from pretest and posttest. Vocabulary learning was evaluated in terms of spontaneous use of the target items, form recall, meaning recall and meaning recognition. The results indicated that the input tasks were more beneficial in meaning recall while the output tasks led to higher scores in form recall. There was no difference in the other two aspects.

Lastly, Fakher Ajabshir (2022) compared the relative efficacy of input based instruction and output-based instruction in the acquisition of L2 request modifiers. Participants were assigned to three experimental groups (textual enhancement, input flooding, and output-based instruction) and one control group. The assessment tasks included pragmatic comprehension and production pre-test and post-tests. The results revealed the overall effectiveness of the treatment in experimental groups. In the comprehension test, textual enhancement and output based instruction groups showed similar performances while output group outscored the others (followed by textual enhancement, input flooding, and control group, respectively) in the production test.

2.11.3. Research on Combined Effects of Input-based Instruction and Output-based Instruction

Few studies focus on the combined benefits of input-based and output-based instructions on the acquisition of L2 structures suggesting the complementary roles instead of mutually exclusive roles in improving L2 knowledge (e.g., Izumi, 2002; Eş, 2003; Smith, 2015; Tanaka, 1999; 2001) except for Kirk's (2013) study.

For instance, Tanaka (1999) conducted two experiments which investigated the acquisition of relative clause in written and spoken modes. It was aimed to compare and combine the effect of comprehension and production practices in teaching a type of relative clause. Each study had three groups, namely comprehension, production, and comprehension plus production groups. The participants were 63 Japanese EFL learners. The data gathered from comprehension and production tests showed that mixed practice outperformed the others in both written and spoken modes. In the subsequent study, Tanaka (2001) investigated the effects of the same practices in the preliminary study on two types psychological verbs, the fear and worry types. A total of 65 EFL learners from four intact classes were assigned to a control, comprehension, production, and mixed groups. The findings indicated that combining comprehension and production had the same effect with the comprehension only and production only groups. It was pointed out that the amount of time allocated for each group was equivalent; however, the total amount of time for the mixed group was used split half for comprehension and production. Therefore, it was

suggested that combining both practices contributed EFL learners to integrate form and function of the target structures.

In another study, Izumi (2002) examined the relative and combined effects of output-based and input-based instruction via visual input enhancement on the acquisition of relative causes. Participants consisted of 61 ESL learners and there were four experimental groups (enhanced input, output, enhanced input plus output, and unenhanced input without output) and one control group. Sentence combination, picture-cued sentence completion, interpretation, and grammaticality judgement tests were used as testing instruments. The first two of them aimed to test productive knowledge while the last two were expected to examine receptive knowledge. The results noted that the participants who were delivered unenhanced input without any output requirement fell behind the groups who undertook input and output activities. In addition, input enhancement group did not have measurable effects on the L2 proficiency. Moreover, the groups engaged in output activities experienced greater improvement than the ones engaged in input activities only while there was no significant difference between output group and input plus output group.

In his study, Eş (2003) conducted an experiment to examine the relative effectiveness of three types of FFI, namely input flood, input plus output, and input plus output accompanied by feedback on L2 knowledge. Participants were 65 university students and they were assigned to three experimental groups. The treatment lasted 6 hours within two weeks. The results displayed that input flood group failed to show measurable gains. On the other hand, the other two experimental groups made significant progress with similar degree of improvements. The findings suggested that output-based instruction had a considerable impact on learning the target structures.

In addition, Kirk (2013) investigated the effect of processing instruction as a type of input-based instruction only and its three combinations with output practices on the acquisition of Spanish phrases. The participants included 70 high school students. The treatments lasted three consecutive days. The first group received input only while the other three groups received processing information along with meaningful output instruction changing in order. The findings revealed that all groups showed significant success in interpretation and production tasks. However, regarding to interpretation task, the input only

group outperformed the others while they had similar results in production tasks. It was also suggested that the groups, in which learners were exposed more time to output rather than input, fell behind the input only group.

Furthermore, Smith (2015) combined the two kinds of instruction, input-based and output-based instruction. The subjects of the study comprised 27 Japanese EFL learners and they were divided into delayed and alternating groups. In a time-series design, the delayed group received two sessions of production practice after two sessions of comprehension practice while the other group had each session alternately. The data collected from three points in time revealed that combination of input and output instruction significantly improved the performance of both groups. Furthermore, the results pointed out that there was not found any differences between early and delayed group, suggesting that they were equally efficacious.

Benati and Batziou (2017) investigated the impact of isolated and combined input and output instruction on learning causative forms. Two different research was carried out by 54 Chinese university students and 30 school-age Greek EFL learners. Both settings included input group, output group, and combined group. The former study had also a control group. The design included pretests, three-hour instruction, posttests, and delayed posttests three weeks after the instruction. The data were collected from interpretation tasks and production tests. The findings demonstrated that the participants in structured input groups (input only and combined) outscored the structured output only groups.

In another study by Benati and Batziou (2019) inquired the influence of isolated and combined structured input and structured output instruction on the causative form. A total of 68 EFL learners were assigned to either input group, output group, or combined group. The instruction lasted for three sessions. Pre-, post-, and delayed posttest containing an interpretation and production tests were applied to the participants. The findings revealed that SI only group and combined SI and SO group outperformed the SO only group.

2.12. Chapter Summary

The chapter covered the literature review related to this study. First, form focused instruction (FFI) was defined and expressed in various forms. Then, types of form focused instruction were introduced. In addition, input-based instruction and theoretical rationales behind it, including Universal Grammar, information processing theories, skill-learning theories, comprehensible input hypothesis, noticing hypothesis, and consciousness-raising approach explained in detail. Furthermore, background information was provided for output-based instruction which was at the core of this study and three functions of output consisting of noticing, hypothesis testing, and the reflective / metalinguistic function. Lastly, as the test used as an instrument in this study comprised of two parts which aimed to measure receptive and productive knowledge of the participants, information about receptive and productive knowledge was provided. The chapter ended with the review of existing research on input-based instruction, and the combined and the comparative instances of input-based and output-based instruction.

CHAPTER III
METHODOLOGY

3.1. Introduction

In this chapter, information about the research design, setting, and participants is given. In addition, the data collection tools such as tests and focus group interviews together with reliability and validity issues are discussed. Then, a brief information about piloting is provided. Lastly, the chapter ends with the explanations about the procedures in data collection and data analysis of quantitative and qualitative data.

3.2. Research Design

The study followed a quasi-experimental mixed-method research design. It is quasi-experimental since the groups were not randomly formed; instead, intact classes were used in this study. It was a mixed method study as focus group interviews were conducted within each group to support quantitative data gathered from pre-, post-, and delayed tests. According to Creswell and Clark (2011), researchers draw on various mixed method designs, but it is possible to categorize them in four broad groups as triangulation design, the embedded design, the explanatory design, and the exploratory design. To be able give right decision, the selection of the best method should be based on the timing, the weighting and the mixing of quantitative and qualitative methods in research. In this study, quantitative data had a primary role and qualitative data had a complementary role. The reason for using qualitative data was to examine and interpret the treatment process in detail since using only quantitative data was not sufficient and the questions regarding the participants' perceptions should be asked as Creswell and Clark (2011) suggest. Accordingly, the embedded design was chosen in the present study.

The data were mainly gathered quantitatively by applying pretest, immediate posttest, and delayed posttest to the control and experimental groups. In addition, focus group interviews with participants in each group provided qualitative data after the treatment was implemented. The intact classes were randomly assigned to one of the four groups, and the sessions were carried out by the researcher. A total of four reading passages were given

within eight sessions during four weeks of treatment. The reading texts were the same in content but they differed in treatment.

The research was carried out by the L2 learners who took English as a compulsory course in the first year of university. The courses were delivered by the instructors in School of Foreign Languages in all departments of the university. Therefore, the researcher was the instructor who provided the treatment in this study. Moreover, the duration of each session was 50 minutes and two sessions were scheduled in each week. There were eight sessions and four weeks of treatment in total. By taking pre-, post-, and delayed posttest into consideration, the research study lasted about six weeks.

There were three experimental groups and one control group in the study. The experimental groups were named as input group, output group, and input + output group. The first experimental group received reading passages in which adverbial conjunctions were made salient for learners by means of bolding and underlining. In other words, the target items were highlighted in order to call learners' attention through enhanced input. They were supposed to read the visually enhanced passages, and try to grasp the meaning and function of the target forms they encountered in the texts. There was no production activity after the reading, instead, they did some input-based activities such as true/false, and matching activities. The exercises focused on meaning rather than practice of forms only (Lee and Van Patten, 2003). The adverbial conjunctions in these activities were also highlighted. They were required to understand the meaning and function of the target forms to be able to do the activities. The participants were expected to interpret input and complete the activities correctly.

As for the second experimental group, the participants were given the identical reading passages but unlike the first group, the target forms were not highlighted via typographical techniques. Instead, they were supposed to do fill-in-the-blank activities, answer questions, and produce some sentences related to the reading containing the target items. As the participants L2 level was low, it was not possible to expect them to write a paragraph. Instead, they mostly completed the sentences that were followed by an adverbial conjunction, with another sentence to form a meaningful whole accordingly.

The third experimental group was a combination of the first and the second group in terms of the treatment they received. After they were exposed to enhanced input, they were required to complete some production tasks and form some sentences including the target forms. Instead of examining the relative effect of two different treatments, it was aimed to see combined effects of enhanced input and output-based instructions.

The last group that served as the control group only received unenhanced reading passages without requiring to produce any language. They were only supposed to read the texts and answer some comprehension questions related to the text. The reason behind the control group also had the same reading text was to restrain from type 1 error which is a false positive conclusion since it was expected that learning could occur to some extent when they were exposed to the input independently of the treatment.

3.3. Setting and Participants

The participants of the study comprised of learners who were studying in Balıkesir University. The participants were first-year students, and beginner learners of English who had studied English during secondary and high school education. Their proficiency levels were measured with the in-house proficiency exam at the beginning of the academic year. There were a total of 136 students, with an age range of 18 to 24; and the mean age was 19.14. Participants in this study were studying in the departments of Turkish language and literature teaching, Turkish language teaching, social sciences education, science education, psychological counselling and guidance, biology education, chemistry education, mathematics education, elementary mathematics education, elementary school teaching, and early childhood education as shown in Table 3. Four intact classes were included in this study. The participants compose of good examples of typical English learners since English classes were randomly formed regardless of their department at the beginning of each term. In this sense, the classes were comprised of learners from different departments and cognitive styles.

Table 3

Departments of participants

Department	Frequency	Percent
Early Childhood Education	23	16.9
Science Education	15	11.0
Elementary Mathematics Education	14	10.3
Social Sciences Education	14	10.3
Psychological Counselling and Guidance	12	8.8
Turkish Language and Literature Education	11	8.1
Turkish Language Education	11	8.1
Biology Education	9	6.6
Elementary School Teaching	9	6.6
Chemistry Education	9	6.6
Mathematics Education	9	6.6
Total	136	100.0

The classes were randomly chosen for a control group (n=34) and three experimental groups including the input group (n=34), the output group (n=34), and the input + output group (n=34). The input group received input-based instruction through enhanced input, the output group received output-based instruction through production activities, and the mixed group made use of enhanced input in combination with output practice. On the other hand, the control group only dealt with the reading texts and did the related comprehension questions. Input in the control group was not textually enhanced or followed by output activities.

Moreover, the gender distribution for each group was displayed in Table 4. Although the gender distribution was unequal in each group due to the high number of females throughout the Education Faculty, there were similar number of males in four groups. Nevertheless, as the study did not aim to see the effect of gender difference on each group; it was not a moderator variable in this research.

Table 4

Gender distribution of participants

Groups	Female	Percent	Male	Percent	Group Total
Input Group	27	79.41	7	20.59	34
Output Group	26	76.47	8	23.53	34
Input + Output Group	25	73.53	9	26.47	34
Control Group	25	73.53	9	26.47	34
Total	103	75.73	33	24.27	136

In addition, the mean ages of four groups were presented in Table 5. The participants' age in the input group varied from 18 to 24 with the mean of 19.29 while the participants in the output group were between 18 and 23, with the mean of 19.06. Furthermore, the mean age for the input + output group was 18.91, varying from 18 to 22. Lastly, the average age was 19.29, changing from 18 to 23 in the control group.

Table 5

Age distribution of participants

	N	Minimum	Maximum	Mean	Std. Deviation
Input	34	18	24	19.29	1.29
Output	34	18	23	19.06	1.15
Input + output	34	18	22	18.91	0.83
Control	34	18	23	19.29	1.24
Total	136	18	24	19.14	1.14

Following that, One-Way ANOVA test was conducted to analyse age of the participants in each group and reveal the possible age differences among groups. It indicated that there was not a significant difference between groups in regards to age ($F (3, 132) = 0.92$, $p > .05$), as shown in Table 6. Therefore, it was not intended to compare participants in different groups with regards to age but their success after the treatment.

Table 6

The mean age differences among four groups

	Sum of Squares	*df*	Mean Square	F	*p*
Between groups	3,61	3	1,20	0,920	0,433
Within groups	172,74	132	1,31		
Total	176,35	135			

Lastly, Maxwell and Loomis (2003) state that random sampling is often favoured to be able to do more valid generalizations and comparisons among different groups, but in the condition if and when it is not possible, post hoc tests are to be applicable. Therefore, a post hoc test was run after ANOVA test to ascertain if there was a difference among the proficiency levels of four groups regarding the target language forms. It was assured that no statistically significant difference between pretest scores of four groups was detected ($F(3, 132) = 0.348$, $p > 0.05$). Furthermore, the report of Levene's test for equality of variances suggested that the participants in each group were homogeneously distributed. In other words, researcher met the assumption of homogeneity of variance among groups.

3.4. Data Collection Tools

This study followed a quasi-experimental mixed method research design; therefore, the data were gathered in several means. The data collection instruments were utilised to gather quantitative and qualitative data. To be able to interpret the quantitative data which was the main source of data in evaluating the proficiency rates of the participants, there was a need for qualitative data to examine and interpret the process and the results of the study. As Maxwell and Mohr (1999) suggested that quantitative and qualitative data offer two different perspectives regarding the research question at hand. They stated that "a quantitative way of understanding the world is a way that views the world in terms of categorical data, featuring the comparison of frequencies and measurements across subjects and categories. A qualitative way of understanding is a way that views the world in terms of textual data, featuring the treatment of focal entities as singular wholes in context (Maxwell and Mohr, 1999: 2, as cited in Maxwell and Loomis, 2003: 249).

To obtain quantitative data, a proficiency test was conducted in three intervals: two days before, immediate after, and lastly, two weeks after the treatment. In this study, these tests were named as pretest, posttest, and delayed posttest correspondingly. The instrument was piloted before the main study to analyse the reliability and validity issues of the test. In addition, it was aimed to work on any ambiguities in comprehension of items to improve the instrument. As for the qualitative data, focus group interviews were arranged to collect information about the perceptions of the participants in each group.

3.4.1. Tests

In this study, a proficiency test was executed as pre-, post-, and delayed posttest, which were conducted before, right after, and two weeks after the treatment. They were identical in content but applied in different time phases. At first, the instrument used in the pilot study. After necessary improvements and revisions were made, the latest version of the test was administered in the main study (See Appendix 1).

As illustrated in Table 7, there were four types of questions within two parts in the test. The discrete-point multiple choice questions and grammaticality judgement test comprised one part of the test while the second part contained fill-in-the-blank items, in addition to the sentence-completion test which was designed to include the target language items. These tests were designed to find out the learners' proficiency level with regard to the adverbial conjunctions.

In the first part, it was aimed to examine the learners' comprehension and receptive knowledge by multiple choice and grammaticality judgement test. On the other hand, the second part tested their productive knowledge. Each part included 10 questions and there were a total of 40 items in four sections of the testing instrument. Each correct answer scored one point and no point was given for incorrect answers. Therefore, the upper limit in scores for each part was 10 and 40 in total. There was no strict time limit for tests.

Table 7

Distribution of the test items

Comprehension Part		Production Part	
Section 1	Section 2	Section 3	Section 4
Multiple Choice Test	Grammaticality Judgement Test	Fill in the Blank Test	Sentence Completion Test
1-10	11-20	21-30	31-40

3.4.2. Focus Group Interviews

Focus group interviews were done with the participants in four groups in order to collect qualitative data. We can define a focus group as "a group comprised of individuals with certain characteristics who focus discussions on a given issue or topic" (Anderson, 1990: 241). Similarly, Denscombe (2007: 115) states that "focus group consists of a small group of people, usually between six and nine in number, who are brought together by a trained moderator (the researcher) to explore attitudes and perceptions, feelings and ideas about a topic" (as cited in Dilshad and Latif, 2013: 192). Therefore, the researcher asked for at least six volunteers from each group. As a result, 10 learners from each group were randomly selected and focus group interviews were conducted to gain insights and retrospective data about learners' cognitive processes regarding adverbial conjunctions after the treatment phase.

Focus group interviews are one of the ways of achieving triangulation in research (Denzin, 1978; Webb et al., 1981). Furthermore, the focus group interview has often a moderator, and it is the researcher who leads the discussion in most cases (Morgan and Spanish, 1984). In his study, Fern (1982) analysed focus groups from different aspects such as group size, moderated vs unmoderated interviews, and participants who know each other or strangers. Although there was a little difference between groups, he suggested that moderated focus group interviews might be more beneficial than unmoderated ones. Therefore, the researcher acted as a moderator in these interviews done with learners in each group. The moderator did not interfere with the natural flow of the participants' speech, and there was not any attempt to lead them to favour any kind of idea.

In addition, focus group interviews are powerful in terms of observing the interaction among the participants which otherwise is not possible. It is not only asking and answering the listed questions, but also represents the naturalistic observation of interaction. It is important in terms of seeing the participants' reactions to the subject they discuss and to each other's ideas and comments (Morgan and Spanish, 1984).

3.4.3. Reliability and Validity

Noda (2003) points out the importance of reliability in testing and the need for consistency whenever they are applied. In other words, test takers are supposed to get similar scores under the condition that the test is delivered for multiple times. The most common way of checking reliability is to find its Coefficient Alpha, which is known as Cronbach's Alpha value (Aiken, 2003). It measures the internal consistency of a test (Cortina, 1994). Cronbach's Alpha value is generally considered valid if it is above 0.70 (Larson-Hall, 2010). Moreover, Büyüköztürk et al. (2014) provide more detailed classification regarding the Alpha values by stating that 0.70 and above display high correlation while the values between 0.30-0.69 indicate middle level of correlation. Furthermore, 0.29 and below show low correlation (Akbana, 2018).

The test implemented before and after the treatment consisted of two parts which aimed to examine the comprehension and production knowledge of the participants. Within each part, there were two types of tests. The first test included 10 multiple choice questions and the second section composed of 10 grammaticality judgement test. The second part contained 10 fill-in-the-blank items, in addition to 10 sentence-completion test. The first three tests had objectively marked items as the participants answers to these questions could be evaluated based on an answer key. Therefore, there was no need for interrater reliability.

However, the last section, namely, sentence completion test was scored by two experienced lecturers who worked as English instructors at the university. Two independent raters marked the questions in this part and ignored grammatical mistakes if they did not impede the meaning. As Brown (1994) suggests, the scoring procedure needs to be objective to be reliable and it is required to have consistent results on the same performance by

multiple markers to reach strong interrater reliability. Thus, interrater reliability for the last section was checked.

All in all, after the necessary revisions and additions were carried out, the researcher piloted the latest version of the test with similar level of students who took a mandatory English course in each semester of their freshman year. The results were calculated using Croncbach's Alpha Reliability Test, and the test was found highly reliable with an Alpha value of $\alpha = .936$. Appendix 2 shows the complete list of statistical reliability values of each item. In addition, Croncbach's Alpha value for the comprehension and production parts of the test were found $\alpha = .853$ and $\alpha = .934$, respectively. Appendix 3 and Appendix 4 show the complete list of statistical reliability values of each item for the comprehension and production parts of the test. Lastly, the two raters' scores were computed for the sentence completion part and the interrater reliability was found highly reliable ($\alpha = .999$) suggesting that there was a strong agreement between the scorers on the sentence completion test.

To ensure validity, the test is supposed to measure what is intended to measure effectively (Crocker and Algina, 1986; Ekmekçi, 1999). In addition, Hughes (1989: 22) asserts that "the more a test is content valid, the more accurately it measures what it is supposed to measure". Therefore, two experienced English instructors, who work at the same setting of the research, checked the test for content validity. They collaborated with the researcher to disambiguate the issues on test items. They worked on the difficulty level, vagueness, and relevancy of items with the content. In accordance with the recommendations, required modifications were made. Lastly, the test was piloted to check possible validity issues. The researcher observed the challenges and ambiguities that participants face throughout the pilot study and reviewed and reconstructed the test for the main study accordingly.

3.5. Piloting

In order to explore and eliminate the possible problems that could be encountered during treatment, the pilot study was conducted before the main study. The learners who participated in the pilot study and the main study had similar level of L2 proficiency as they were freshmen who took English as a compulsory course that was offered by School of

Foreign Languages in the first and second semester. To make sure that they were under the similar conditions and similar level of L2 proficiency at the time of the study, both the pilot study and the main study were administered in spring terms of the academic year. The timeline of the pilot study was shown in Table 8. Due to the unwillingness of another instructor to give the related treatment and spare time to give feedback about the observations during the treatment, the researcher conducted the pilot study in her own classes.

Table 8

The timeline of the pilot study

Date	Procedure
February, 2020	Pretest / Treatment (Reading 1)
February, 2020	Treatment (Reading 2)
February, 2020	Treatment (Reading 3)
March, 2020	Treatment (Reading 4)
March, 2020	Posttest

A total of 50 EFL learners participated in three experimental groups. There were 17 participants in the input group, 17 participants in the output group, and 16 participants in the input + output goup. At the beginning of the pilot study, each group was expected to have at least 30 students; however, most of the students could not attend the posttest due to the outbreak of the coronavirus pandemic. Right after the posttest was administered, the universities were closed in Turkey. As a result, a delayed posttest could not be delivered two weeks after the treatment. In addition, as the instruction that the control group would receive was not manipulated by the researcher, it was not included in the pilot study. All of the students were already instructed by the same teaching materials. The experimental groups were exposed to either enhanced input together with input-based acitivies (input group), or unenhanced input with production acitivities (output group), or both (input + output group).

In addition, a test was prepared to be used as pre-, post-, and delayed posttest in the study. During the piloting of the test, it was observed that students did not experience any ambiguity about what to do in the first part of the test as they were quite familiar with multiple choice recognition test and grammaticality judgement test. However, the students

had difficulty to understand some sentences due to the lack of L2 knowledge. Therefore, they were reviewed and reconstructed according to the English level of L2 learners.

Furthermore, it was observed that the participants found the production part fairly challenging since it was first designed as a sentence completion test only. In a sentence completion test, the participants were expected to complete the first sentence that was followed by an adverbial conjunction, with another meaningful sentence in a way that form an appropriate and meaningful whole in accordance with the conjunction between them. The participants had difficulty in carrying out that task.

To that end, at first, the research considered it would be better to implement a less demanding fill in the blanks test as a production test in pretest and posttests of the main study. The participants were to fill in the blanks with the correct adverbial conjunctions. However, the feedbacks from the students and observations showed that it was not enough to test production alone. It was observed that some of the participants felt insecure about forming a whole sentence even though they understood the meaning and function of the adverbial conjunctions in the test. Thus, as the overall proficiency level of learners was low, it would better to check their productive ability in a more controlled task, too.

As a result of the discussion with the thesis monitoring committee, it was decided that there were to be two tests in production part to measure productive proficiency thoroughly. Therefore, while the fill in the blank test as a production test was added to the production part of the pre-, post-, and delayed posttest, the sentence completion test that was planned at the beginning was decided to remain as the fourth assessment tool.

Due to the coronavirus pandemic, School of Foreign Languages had to do some dramatic changes in assigning instructors to different courses. Thus, there were some unpredictable changes in the researcher's schedule. As a result, the researcher conducted the main study on the spring term of following academic year. In addition, as there were some additions and modifications in the instrument, the researcher piloted the test one more time with similar level of students who took a mandatory English course in each semester of their freshman year before the main study.

3.6. Data Collection Procedures

Firstly, the researcher got necessary permissions from the institution to conduct a research study with the learners taking English as a compulsory course which was provided by the instructors in School of Foreign Languages in all units of the university (See Appendix 5) As an English instructor, all classes were taught by the researcher. The participants were informed about the aim, timing, and procedures of the study, and they were asked to approve the consent form at the beginning of the study. It was also assured that none of their personal information would be shared, but only be used for research purposes.

The data were gathered in several means. Firstly, a pretest was administered to four intact classes to ensure that there was no significant difference among groups before the treatment. Then each class was randomly assigned to either the control group or one of the experimental groups. The same test was given to all groups in three occasions: pretest, immediate posttest, and delayed posttest. There were four types of questions within two parts in the test. The discrete-point multiple choice questions and grammaticality judgement test comprised one part of the test while the second part contained fill-in-the-blank items, in addition to the sentence-completion test which was designed to include the target language items. For the reliability analysis, Cronbach's alpha reliability coefficient scores were calculated. They were found as .881 for the pretest (see Appendix 6), $\alpha = .923$ for the posttest (see Appedix 9), and $\alpha = .939$ for the delayed posttest (see Appendix 12). Appendices 7 and 8 shows the complete list of statistical reliability values for comprehension ($\alpha = .731$), and production ($\alpha = .893$) parts of the pretest, respectively. Likewise, reliability values for comprehension ($\alpha = .797$) and production ($\alpha = .914$) part of the posttest are displayed in Appendices 10 and 11. Following that Appendices 13 and 14 indicates reliability values for comprehension ($\alpha = .838$) and production ($\alpha = .930$) parts of delayed posttest. Furthermore, the scores of the two raters were measured by using Cronbach's Apha for the sentence completion test in pretest, posttest, and delayed posttest. Interrater reliability is required (Goodwin, 2001) as it shows the degree of agreement of different scorers on the same variable (Razı, 2012). It was found that the interrater reliability was $\alpha = .998$ for the pretest, $\alpha = .999$ for the posttest, and $\alpha = .999$ for the delayed posttest and they were positively correlated. It assured that they were highly reliable and there was a strong agreement between the raters regarding the scores of the sentence completion test.

In addition, a posttest was performed two days after the treatment to all groups. Two weeks later, the participants were given a delayed posttest to see the retention rates of different treatments in a longer period of time. All tests were identical in terms of content. The data collection procedure of the study was summarized in Table 9.

Table 9

Procedure of the Study

Pretest (Comprehension + Production Tests)			
2 days after pretest			
Group 1 Enhanced Input	Group 2 Output Activities	Group 3 Enhanced Input + Output Activities	Group 4 Control
2 days after treatment			
Immediate Posttest (Comprehension + Production Tests)			
2 weeks after treatment			
Delayed Posttest (Comprehension + Production Tests)			

Lastly, to gather qualitative data, 10 participants were randomly selected from the volunteers in each group. They were asked to attend a focus group interview accompanied by a moderator/researcher. The participants were expected to tell their ideas and comments about the treatment type they received. The aim was to gain insights and retrospective data about learners' cognitive processes regarding adverbial conjunctions after the treatment phase. They were supposed to interact with each other and discuss the subject at stake (Morgan and Spanish, 1984). Focus group interviews also contributed triangulation in research which increases the credibility and validity of research findings (Denzin, 1978; Webb et al., 1981). All in all, the timeline of the data collection procedure of the main study was illustrated in Table 10.

Table 10

The timeline of the main study

Date	Procedure
February, 2022	Pretest
February/March, 2022	Treatment (Reading 1)
March, 2022	Treatment (Reading 2)
March, 2022	Treatment (Reading 3)
March, 2022	Treatment (Reading 4)
March/April, 2022	Posttest
April, 2022	Delayed Posttest

3.7. Treatment Procedures

This study was carried out in compulsory English courses which were given by the instructors in School of Foreign Languages in the first year of university education. The participants were freshmen and studying in various departments at the faculty of education. The researcher was the instructor of this classes at the same time. A reading course book named "More to Read I" (Cezairlioğlu Türkan and Türkan, 2006) was followed in these courses as a teaching material. Therefore, the researcher looked for the most common adverbial conjunctions in the reading texts of the book. As a result, 10 adverbial conjunctions were selected to be used in the current study. The most encountered conjunctions (in other words, in addition, as a result, on the other hand, for instance, similarly, however, therefore, in contrast, instead) were included in the study. Accordingly, it was decided upon four reading texts which included the target conjunctions. It was ensured that 10 adverbial conjunctions were to be encountered at least three times in reading texts during the treatment. The chance of encounter was higher in experimental groups since they were exposed to them in either input (the input group) or output (the output group), or both (the input + output group) activities.

The lessons were organized according to some expected outcomes. Accordingly, the learners were supposed to be able to understand the text and talk about the topic of the reading text, and recognize the target forms and understand their meanings. In addition, they

were supposed to figure out the form and function relationship of the target forms, and produce them.

In addition, lesson plans were organized identical in terms of the warm up activity, and the main activity. Each lesson started with some questions about the reading topic. After the teacher elicited the answers, the students read the text first. The target adverbial conjunctions were presented as highlighted (the input and the input + output group) or unobtrusive (the output and the control group) in the text. In the groups with enhanced input, they were salient, so it was expected to attract their attention and help notice them. Afterwards, the teacher went over each paragraph by paraphrasing them according to their proficiency level. As their English proficiency level was low, the text was required to be examined thoroughly.

After a 10-minute break, a new session started with post activities. For the groups which received input-based instruction, the teacher introduced the comprehension questions which were organized as input activities in line with FonF instruction. The students were asked to do some input activities in which they were not required to produce anything. While doing the input activities, they were supposed to choose the correct options, decide if the expressions were true or false, and/or match the two sentences linked with adverbial conjunctions. The activities included the adverbial conjunctions they had encountered in the text. Lastly, the target forms were highlighted and made salient both in the text and activities. Some examples of the activities adapted from the book "More to Read I" (Cezairlioğlu Türkan and Türkan, 2006: 313-315) and included in the input-based instruction were preseted below.

True / False

T F In one of the European Cup Finals, too many people tried to enter the stadium at the same time. As a result, one of the stadium walls collapsed.

Multiple Choice

Some people think that athletes should be role models for young people following them. -----, the others think that they do not have such responsibilities.

a) similarly b) as a result c) in other words d) on the other hand

As for the groups with output practices, after the main activity, the teacher introduced the production questions prepared according to FonF instruction. The students answered the questions that were designed as production acitivities to check their understanding of the text. They included fill-in-the-blank activities and sentence completion practice. The students were expected to answer the questions which required to use adverbial conjunctions related to the text. However, the target forms were not highlighted either in the text or in the production activities. The following activities which were adapted from the course book (Cezairlioğlu Türkan and Türkan, 2006: 313-315) were included in the output-based instruction.

Sentence Completion

Kids usually imitate sports stars. In other words, _____

Fill-in-the-blanks

Some people think that athletes should be role models for young people following them. _____, the others think that they do not have such responsibilities.

The combination of input-based and output-based instruction were delivered in the input + output group. The procedure was the same with the input and the output group, but they differed in the time they were allocated. They had to be the same in duration with the other groups. Therefore, the students did some input activities such as multiple choice, true / false, and matching in the first half of the post activity and then they did some output activities such as fill-in-the-blanks and sentence completion in the second half of the post activity. On the other hand, the students in the control group completed some comprehension questions related to the text. The students were not exposed to any input or output activities including adverbial conjunctions but they worked on various comprehension questions only.

In all groups, the target forms were not explicitly instructed by the teacher. In the condition that the students asked questions including the target forms, the teacher implicitly explained it without moving away from the meaning. Lastly, the teacher checked for understanding and possible ambiguities regarding the reading text by asking the students some questions. The teacher called for a quick review of the topic and asked them to share

their ideas. Sample lesson plans for the input, the output, the input + output, and the control group were given in Appendices 15,16,17, and 18 respectively.

3.8. Data Analysis Procedures

The quantitative data gathered from the pretest and the posttests were analysed using SPSS. The sample size of each group was more than 30 and less than 50 in this study; therefore, Shapiro-Wilk test was conducted regarding the distribution of groups to decide which tests would be applied (Büyüköztürk et al., 2014; Mishra et al., 2019; Royston, 1995; Shapiro and Wilk, 1965). According to Shapiro-Wilk test results, the groups showed the evidence of normality ($W = 0.948$, $p = 0.108$ for the input group, $W = 0.946$, $p = 0.093$ for the output group, $W = 0.942$, $p = 0.072$ for the input + output group, $W = 0.938$, $p = 0.052$ for the control group). As a result, it was decided to perform parametric tests in the study. The descriptive statistics of the groups and the mean differences were examined. The paired t-test results were analysed to find out the differences in mean scores between pre-, post-, and delayed posttest within each group. These results provided us evidences regarding the improvement in the participants' proficiency, if any, subsequent of the treatment they received. Furthermore, the analysis of variance tests (ANOVA) were conducted to find out comparing effects of different treatment groups. Moreover, post hoc tests were applied to see between which groups the significant difference occurred. The results were used to measure which instructional approach was the most successful and favourable in learning adverbial conjunctions.

The qualitative data came from focus group interviews, carried out within each group. The researcher as the moderator asked the participants' perceptions about the treatment they received. The participants talked about the pros and cons from their point of views. The researcher wrote down the expressions and paid attention to repeated ideas. Their comments, complaints, and recommendations were noted. The participants who attended the focus group interviews were numbered and recorded according to their rank in the study. The data collected by focus group interviews were analysed by means of frequency analysis and direct quotations were drawn from the interviews. The perceptions and thoughts of the participants in each group were reported to support and/or reject the findings of test results inductively.

3.9. Chapter Summary

This chapter introduced the research design, setting and participants of the current study. It was given detailed information about data collection instruments which provided quantitative and qualitative data. Lastly, procedures for data analysis were discussed.

CHAPTER IV
FINDINGS

4.1. Introduction

In this chapter, firstly, findings of paired-samples t-test results for each group, including input group, output group, input + output group, and control group, are presented. They show the changes in the participants' proficiency levels within each group. Then, findings of ANOVA regarding pre-, post-, and delayed posttest results among four groups are analysed. Moreover, the findings of comprehension and productions parts of the pre-, post-, and delayed posttest are also demonstrated. Lastly, findings from the learners' perceptions and opinions which have been collected through focus group interviews are presented.

4.2. Findings of Paired-Samples t-test results for Each Group

In the study, there were three experimental groups, namely input group, output group, and input + output group, and a control group. As they were exposed to different treatments or no treatment, it is wise to measure the gains of each group after the treatment. Their retention rate over time was also calculated by using delayed posttest. As a result, paired-samples t-tests were executed to see whether there were any statistically significant differences between pretest and posttest, and posttest and delayed posttest. In addition, pretest and delayed posttest results were also compared to determine whether the effects of treatment lasted long, and there were still significant differences before and late after the treatment if any. The test results were used to interpret the efficiency of treatments and the durability of their effects.

4.2.1. Findings for Input Group

Table 11

Descriptive statistics for input group

Input	*N*	Minimum	Maximum	*M*	*SD*
Pretest	34	3.00	27.00	13.38	6.42
Posttest	34	7.00	36.00	25.18	7.21
Delayed Posttest	34	4.00	37.00	24.41	9.08

Table 12

Paired-samples t-test results for input group

Input	*N*	*M*	*SD*	*t*	*df*	*p*
Pretest - Posttest	34	-11.79	7.03	-9.79	33	0.000
Posttest - Delayed	34	0.76	7.19	0.62	33	0.539
Pretest - Delayed	34	-11.03	9.06	-7.09	33	0.000

In Table 11, descriptive statistics for the input group were presented. According to paired samples t-test results (Table 12), there was a significant difference between pre-test mean scores (M = 13.38, SD = 6.42) and posttest mean scores (M = 25.18, SD = 7.21) within input group. *(*t (33) = -9.79, $p < .05$). In other words, participants did significantly better in posttest than in pretest. In addition, there was a decrease in delayed posttest mean scores (M = 24.41, SD = 9.08) but the difference was insignificant *(*t (33) = 0.62, $p > .05$). The results suggested that the participants who received input-based instruction still remembered the target linguistic forms late after the treatment. Moreover, the mean scores for comprehension and production parts of pre-, post-, and delayed posttest for input group were calculated using paired samples t-tests.

Table 13

Descriptive statistics of comprehension tests for input group

Input	*N*	Minimum	Maximum	*M*	*SD*
Pre-Comprehension	34	3.00	18.00	8.94	3.79
Post-Comprehension	34	7.00	19.00	14.18	3.39
Delayed Comprehension	34	4.00	19.00	13.71	4.37

Table 14

Paired-samples t-test results of comprehension tests for input group

Input	*N*	*M*	*SD*	*t*	*df*	*p*
Pretest - Posttest	34	-5.24	3.57	-8.56	33	0.000
Posttest - Delayed	34	0.47	3.75	0.73	33	0.470

In Table 13, descriptive statistics were shown for the comprehension parts of the tests for the input group. As illustrated in Tables 14, a significant difference between comprehension pretest mean scores (M = 8.94, SD = 3.79) and posttest mean scores (M = 14.18, SD = 3.39) was detected within input group (t (33) = -8.56, $p < .05$), suggesting that the participants' receptive knowledge of adverbial conjunctions was significantly better in posttest than in pretest. In addition, delayed posttest mean scores for comprehension (M = 13.71, SD = 4.37) was slightly less than the posttest's but the difference was insignificant (t (33) = 0.73, $p > .05$).

Table 15

Descriptive statistics of production tests for input group

Input	*N*	Minimum	Maximum	*M*	*SD*
Pre-Production	34	0.00	13.00	4.44	4.02
Post-Production	34	0.00	19.00	11.00	4.74
Delayed Production	34	0.00	19.00	10.68	5.57

Table 16

Paired-samples t-test results of production tests for input group

Input	*N*	*M*	*SD*	*t*	*df*	*p*
Pretest - Posttest	34	-6.56	5.29	-7.23	33	0.000
Posttest - Delayed	34	0.32	4.79	0.39	33	0.696

As for the production tests, descriptive statistics for the input group were given in Table 15. It was reported in Table 16 that a significant difference between pretest mean scores for production ($M = 4.44$, $SD = 4.02$) and posttest mean scores ($M = 11.00$, $SD = 4.74$) within input group (t (33) = -7.23, $p < .05$). The findings showed that the participants' productive knowledge of adverbial conjunctions significantly improved in posttest. Furthermore, although it was not a significant difference, production test scores in delayed posttest ($M = 10.68$, $SD = 5.57$) somewhat decreased (t (33) = 0.39, $p > .05$).

4.2.2. Findings for Output Group

Table 17

Descriptive statistics for output group

Output	*N*	Minimum	Maximum	*M*	*SD*
Pretest	34	2.00	30.00	15.29	8.14
Posttest	34	6.00	38.00	27.03	9.97
Delayed Posttest	34	7.00	36.00	26.82	9.80

Table 18

Paired-samples t-test results for output group

Output	*N*	*M*	*SD*	*t*	*df*	*p*
Pretest - Posttest	34	-11.74	7.96	-8.59	33	0.000
Posttest - Delayed	34	0.21	3.90	0.31	33	0.760
Pretest - Delayed	34	-11.53	8.53	-7.88	33	0.000

Table 17 displayed descriptive statistics for the output group. In Table 18, paired samples t-test results for the output group showed that, there was a significant difference

between pre-test mean scores (*M* = 15.29, *SD* = 8.14) and posttest mean scores (*M* = 27.03, *SD* = 9.97) *(t* (33) = -8.59, *p* < .05); suggesting that participants were more successful in posttest than in pretest. Furthermore, a slight decrease was observed in delayed posttest mean scores (*M* = 26.82, *SD* = 9.80) but it was not found significant *(t* (33) = 0.31, *p* > .05). Moreover, the mean scores for comprehension and production parts of pre-, post-, and delayed posttest for output group were calculated using paired samples t-tests.

Table 19

Descriptive Statistics of comprehension tests for output group

Output	*N*	Minimum	Maximum	*M*	*SD*
Pre-Comprehension	34	2.00	18.00	9.97	4.18
Post-Comprehension	34	5.00	19.00	14.85	4.10
Delayed Comprehension	34	6.00	19.00	14.74	3.93

Table 20

Paired-samples t-test results of comprehension tests for output group

Output	*N*	*M*	*SD*	*t*	*df*	*p*
Pretest - Posttest	34	-4.88	3.54	-8.04	33	0.000
Posttest - Delayed	34	0.12	1.57	0.44	33	0.665

When comprehension test scores of output group were compared, it was found a significant difference between pretest mean scores (*M* = 9.97, *SD* = 4.18) and posttest mean scores (*M* = 14.85, *SD* = 4.10) as displayed in Tables 19 and 20 *(t* (33) = -8.04, *p* < .05). The results showed that the receptive knowledge of participants regarding adverbial conjunctions significantly improved in posttest. Moreover, mean scores of delayed posttest (*M* = 14.74, *SD* = 3.93) remained almost the same with the posttest mean scores, suggesting the retention rate was high *(t* (33) = 0.44, *p* > .05).

Table 21

Descriptive Statistics of production tests for output group

Output	*N*	Minimum	Maximum	*M*	*SD*
Pre-Production	34	0.00	18.00	5.29	4.98
Post- Production	34	0.00	20.00	12.18	6.21
Delayed Production	34	0.00	19.00	11.94	6.19

Table 22

Paired-samples t-test results of production tests for output group

Output	*N*	*M*	*SD*	*t*	*df*	*p*
Pretest - Posttest	34	-6.88	5.71	-7.03	33	0.000
Posttest - Delayed	34	0.24	3.14	0.44	33	0.665

The mean scores and standard deviations were found through descriptive statistics for production tests (Table 21). As illustrated in Table 22, a significant difference was detected between pretest mean scores (M = 5.29, SD = 4.98) and posttest mean scores (M = 12.18, SD = 6.21) in production parts of the tests (t (33) = -7.03, $p < .05$). The data supported the idea that the participants' productive knowledge of adverbial conjunctions significantly increased via output-based instruction. On the other hand, there was a slight decrease in delayed posttest mean scores (M = 11.94, SD = 6.19), but it was not statistically significant (t (33) = 0.44, $p > .05$).

4.2.3. Findings for Input + Output Group

Table 23

Descriptive statistics for input + output group

Input + Output	*N*	Minimum	Maximum	*M*	*SD*
Pretest	34	1.00	29.00	14.50	7.87
Posttest	34	6.00	39.00	24.50	9.09
Delayed Posttest	34	5.00	36.00	23.91	10.73

Table 24

Paired-samples t-test results for input + output group

Input + Output	*N*	*M*	*SD*	*t*	*df*	*p*
Pretest - Posttest	34	-10.00	8.63	-6.75	33	0.000
Posttest - Delayed	34	0.59	6.04	0.57	33	0.574
Pretest - Delayed	34	-9.41	8.57	-6.40	33	0.000

Table 23 illustrated the descriptive statistics, and Table 24 presented paired-samples t-test results for input + output group. The findings demonstrated that a significant difference was found between pre-test mean scores (M = 14.50, SD = 7.87) and posttest mean scores (M = 24.50, SD = 9.09) (t (33) = -6.75, $p < 0.05$); proving that participants showed progress after the treatment. Moreover, a slight decrease was discovered in delayed posttest mean scores (M = 23.91, SD = 10.73) but it was not found significant (t (33) = 0.57, $p > .05$). Moreover, the mean scores for comprehension and production parts of pre-, post-, and delayed posttest for input + output group were calculated using paired samples t-tests.

Table 25

Descriptive Statistics of comprehension tests for input + output group

Input + Output	*N*	Minimum	Maximum	*M*	*SD*
Pre-Comprehension	34	1.00	18.00	8.97	3.63
Post-Comprehension	34	3.00	19.00	13.50	4.07
Delayed Comprehension	34	4.00	19.00	13.09	4.59

Table 26

Paired-samples t-test results of comprehension tests for input + output group

Input + Output	*N*	*M*	*SD*	*t*	*df*	*p*
Pretest - Posttest	34	-4.53	3.74	-7.06	33	0.000
Posttest - Delayed	34	0.41	3.52	0.68	33	0.500

As shown in Tables 25 and 26, regarding input + output group, a significant difference was observed between comprehension pretest mean scores (M = 8.97, SD = 3.63) and posttest mean scores (M = 13.50, SD = 4.07), proving that there was a statistically

significant increase in the participants' receptive knowledge of adverbial conjunctions *(t* (33) = -7.06, $p < .05$). While the mean scores decreased a little in delayed posttest ($M = 13.09$, $SD = 4.59$), it was not a statistically significant decrease *(t* (33) = 0.68, $p > .05$).

Table 27

Descriptive Statistics of production tests for input + output group

Input + Output	*N*	Minimum	Maximum	*M*	*SD*
Pre-Production	34	0.00	16.00	5.56	5.66
Post- Production	34	0.00	20.00	11.00	6.22
Delayed Production	34	0.00	19.00	10.82	6.74

Table 28

Paired-samples t-test results of production tests for input + output group

Input + Output	*N*	*M*	*SD*	*t*	*df*	*p*
Pretest - Posttest	34	-5.44	5.96	-5.32	33	0.000
Posttest - Delayed	34	0.18	4.24	0.24	33	0.810

Table 27 and Table 28 indicated a significant difference between the mean scores of pretest ($M = 5.56$, $SD = 5.66$) and posttest ($M = 11.00$, $SD = 6.22$) in terms of production within input + output group *(t* (33) = -5.32, $p < .05$). The results revealed that the participants' productive knowledge of adverbial conjunctions significantly enhanced in posttest. As for delayed posttest ($M = 10.82$, $SD = 6.74$), mean scores for production test were similar with posttest and the difference was insignificant *(t* (33) = 0.24, $p > .05$).

4.2.4. Findings for Control Group

Table 29

Descriptive statistics for control group

Control	*N*	Minimum	Maximum	*M*	*SD*
Pretest	34	2.00	30.00	14.62	8.44
Posttest	34	7.00	36.00	20.29	9.46
Delayed Posttest	34	4.00	37.00	21.68	10.59

Table 30

Paired-samples t-test results for control group

Control	*N*	*M*	*SD*	*t*	*df*	*p*
Pretest - Posttest	34	-5.68	5.76	-5.75	33	0.000
Posttest - Delayed	34	-1.38	5.23	-1.54	33	0.133
Pretest - Delayed	34	-7.06	6.19	-6.65	33	0.000

Descriptive statistics for the control group were given in Table 29. In Table 30, it was found a significant difference between pretest mean scores (M = 14.62, SD = 8.44) and posttest mean scores (M = 20.29, SD = 9.46) in control group (t (33) = -5.75, $p < 0.05$). The findings illustrated that even though the participants were not exposed to any treatment but the usual classes, they learned the target forms within the texts to some extent. The observed success for control group was not as high as the treatment groups', but they showed progress. In addition, in contrast to the experimental groups, there was an increase rather than decrease in delayed posttest mean scores (M = 21.68, SD = 10.59) but it was statistically insignificant (t (33) = -1.54, $p > .05$). Moreover, the mean scores for comprehension and production parts of pre-, post-, and delayed posttest for control group were calculated using paired samples t-tests.

Table 31

Descriptive Statistics of comprehension tests for control group

Control	*N*	Minimum	Maximum	*M*	*SD*
Pre-Comprehension	34	2.00	16.00	8.68	3.93
Post-Comprehension	34	6.00	18.00	11.74	3.80
Delayed Comprehension	34	4.00	19.00	12.12	4.47

Table 32

Paired-samples t-test results of comprehension tests for control group

Control	*N*	*M*	*SD*	*t*	*df*	*p*
Pretest - Posttest	34	-3.06	3.46	-5.15	33	0.000
Posttest - Delayed	34	0.38	2.85	0.78	33	0.440

The findings were displayed in Table 31 and Table 32 for the comprehension tests scores of the control group. It could be seen that there existed a significant difference between pretest mean scores (M = 8.68, SD = 3.93) and posttest mean scores (M = 11.74, SD = 3.80) with regard to comprehension part of the test in control group (t (33) = -5.15, p < .05). It was inferred that the participants' receptive knowledge of adverbial conjunctions significantly improved in posttest without being exposed to any instruction types subject to this study. In addition, delayed posttest mean scores for comprehension (M = 12.12, SD = 4.47) increased rather than decreased in control group but it was not a significant difference (t (33) = 0.78, p > .05).

Table 33

Descriptive statistics of production tests for control group

Control	*N*	Minimum	Maximum	*M*	*SD*
Pre-Production	34	0.00	15.00	5.91	5.39
Post- Production	34	0.00	18.00	8.56	6.24
Delayed Production	34	0.00	19.00	9.59	6.82

Table 34

Paired-samples t-test results of production tests for control group

Control	*N*	*M*	*SD*	*t*	*df*	*p*
Pretest - Posttest	34	-2.65	3.90	-3.95	33	0.000
Posttest - Delayed	34	-1.03	4.03	-1.49	33	0.146

According to Table 33 and 34, there was a significant difference between pretest mean scores (M = 5.91, SD = 5.39) and posttest mean scores (M = 8.56, SD = 6.24) for production within control group (t (33) = -3.95, p < .05). The data showed that productive knowledge of the participants related to the target forms significantly developed in posttest. Moreover, production test scores in delayed posttest (M = 9.59, SD = 6.82) were higher than the posttest, it was not a significant difference, though (t (33) = 1.49, p > .05).

4.3. Findings of One-Way ANOVA Analysis

In this section, the findings of pre-, post-, and delated posttest results among four groups were displayed. In addition, scores of comprehension and production parts of the tests were compared and contrasted.

4.3.1 The Findings of Pretest Results among Four Groups

Table 35

The descriptive statistics of pretest among four groups

	N	*M*	*SD*	Minimum	Maximum
Input	34	13.38	6.42	3.00	27.00
Output	34	15.29	8.14	2.00	30.00
Input + Output	34	14.50	7.87	1.00	29.00
Control	34	14.62	8.44	2.00	30.00
Total	136	14.45	7.70	1.00	30.00

Table 36

The mean scores of pretest among four groups

	Sum of Squares	*df*	Mean Square	F	*p*
Between groups	64.02	3	21.34	0.355	0.786
Within groups	7945.62	132	60.19		
Total	8009.64	135			

A one-way ANOVA was conducted to find the difference among the mean scores of pretest of four groups. Table 35 demonstrated the descriptive statistics of pretest among four groups. As shown in Table 36, there was not a statistically significant difference between pretest scores of four groups (F (3, 132) = 0.355, $p > 0.05$). In addition, Table 37 below assured that the participants in each group were distributed homogeneously in terms of the pretest results**,** as assessed by the Levene's test for equality of variances. In other words, researcher met the assumption of homogeneity of variance among groups.

Table 37

Test of Homogeneity of Variances

Levene Statistic	*df1*	*df2*	*p*
2.03	3	132	0.113

Furthermore, Table 38 below assured that the differences in pretest scores were not statistically significant among input group (*M* = 13.38, *SD* = 6.42), output group (*M* = 15.29, *SD* = 8.14), input + output group (*M* = 14.50, *SD* = 7.87), and control group (*M* = 14.62, *SD* = 8.44) by applying Post Hoc Scheffe Test.

Table 38

Post hoc scheffe test for the mean scores of the pretest

		Mean Difference	Std. Error	*p*	Lower Bound	Upper Bound
Input	Output	-1.91	1.88	0.793	-7.24	3.42
	Input + Output	-1.12	1.88	0.950	-6.45	4.21
	Control	-1.24	1.88	0.934	-6.56	4.09
Output	Input	1.91	1.88	0.793	-3.42	7.24
	Input + Output	0.79	1.88	0.981	-4.53	6.12
	Control	0.68	1.88	0.988	-4.65	6.01
Input + Output	Input	1.12	1.88	0.950	-4.21	6.45
	Output	-0.79	1.88	0.981	-6.12	4.53
	Control	-0.12	1.88	1.00	-5.45	5.21
Control	Input	1.24	1.88	0.934	-4.09	6.56
	Output	-0.68	1.88	0.988	-6.01	4.65
	Input + Output	0.12	1.88	1.00	-5.21	5.45

Furthermore, the descriptive statistics of comprehension and production pretests among four groups were given in Table 39. To ensure that there was no significant difference in two parts of pretest scores, the mean scores of comprehension pretest of four groups were calculated to find possible differences among groups as shown in Table 40. It was found that there were not any significant differences between groups (F (3, 132) = 0.73, p = 0.536). In addition, production pretest mean scores were also compared by using one-way ANOVA. Consequently, no significant difference was detected between groups (F (3, 132) = 0.52, p = 0.667).

Table 39

The descriptive statistics of comprehension and production pretests among four groups

		N	Minimum	Maximum	Mean	Std. Deviation
Comprehension	Input	34	3.00	18.00	8.94	3.79
	Output	34	2.00	18.00	9.97	4.18
	Input + Output	34	1.00	18.00	8.97	3.63
	Control	34	2.00	16.00	8.68	3.93
	Total	136	1.00	18.00	9.14	3.88
Production	Input	34	0.00	13.00	4.44	4.02
	Output	34	0.00	18.00	5.29	4.98
	Input + Output	34	0.00	16.00	5.56	5.66
	Control	34	0.00	15.00	5.91	5.39
	Total	136	0.00	18.00	5.30	5.02

Table 40

The mean scores of comprehension and production pretest among four groups

		Sum of Squares	*df*	Mean Square	F	*p*
Comprehension	Between groups	33.08	3.00	11.03	0.730	0.536
	Within groups	1995.27	132.00	15.12		
	Total	2028.35	135.00			
Production	Between groups	40.08	3.00	13.36	0.524	0.667
	Within groups	3366.56	132.00	25.50		
	Total	3406.64	135.00			

Nevertheless, the findings were verified by applying Post Hoc Scheffe Test. Table 41 illustrated that there were not any significant differences among the comprehension pretest mean scores of input group (M = 8.94, SD = 3.79), output group (M = 9.97, SD = 4.18), input + output group (M = 8.97, SD = 3.63), and control group (M = 8.68, SD = 3.93). Moreover, as shown in Table 42, no significant difference was observed among the production pretest mean scores of input group (M = 4.44, SD = 4.02), output group (M = 5.29, SD = 4.98), input + output group (M = 5.56, SD = 5.66), and control group (M = 5.91, SD = 5.39).

Table 41

Post hoc scheffe test for the mean scores of the comprehension pretest

Dependent Variable			Mean Dif.	Std. Error	*p*	Lower Bound	Upper Bound
Comprehension	Input	Output	-1.03	0.94	0.755	-3.70	1.64
		Input + Output	-0.03	0.94	1.00	-2.70	2.64
		Control	0.26	0.94	0.994	-2.41	2.94
	Output	Input	1.03	0.94	0.755	-1.64	3.70
		Input + Output	1.00	0.94	0.771	-1.67	3.67
		Control	1.29	0.94	0.598	-1.38	3.96
	Input + Output	Input	0.03	0.94	1.00	-2.64	2.70
		Output	-1.00	0.94	0.771	-3.67	1.67
		Control	0.29	0.94	0.992	-2.38	2.96
	Control	Input	-0.26	0.94	0.994	-2.94	2.41
		Output	-1.29	0.94	0.598	-3.96	1.38
		Input + Output	-0.29	0.94	0.992	-2.96	2.38

Table 42

Post hoc scheffe test for the mean scores of the production pretest

Dependent Variable			Mean Dif.	Std. Error	*p*	Lower Bound	Upper Bound
Production	Input	Output	-0.85	1.22	0.922	-4.32	2.62
		Input + Output	-1.12	1.22	0.842	-4.59	2.35
		Control	-1.47	1.22	0.696	-4.94	2.00
	Output	Input	0.85	1.22	0.922	-2.62	4.32
		Input + Output	-0.26	1.22	0.997	-3.73	3.20
		Control	-0.62	1.22	0.968	-4.09	2.85
	Input + Output	Input	1.12	1.22	0.842	-2.35	4.59
		Output	0.26	1.22	0.997	-3.20	3.73
		Control	-0.35	1.22	0.994	-3.82	3.12
	Control	Input	1.47	1.22	0.696	-2.00	4.94
		Output	0.62	1.22	0.968	-2.85	4.09
		Input + Output	0.35	1.22	0.994	-3.12	3.82

4.3.2. The Findings of Posttest Results among Four Groups

Table 43

The descriptive statistics of posttest among four groups

	N	Minimum	Maximum	Mean	Std. Deviation
Input	34	7.00	36.00	25.18	7.21
Output	34	6.00	38.00	27.03	9.97
Input + Output	34	6.00	39.00	24.50	9.09
Control	34	7.00	36.00	20.29	9.46
Total	136	6.00	39.00	24.25	9.23

Table 44

The mean scores of posttest among four groups

	Sum of Squares	*df*	Mean Square	F	*p*
Between groups	826.03	3	275.34	3.405	0.020
Within groups	10675.47	132	80.88		
Total	11501.50	135			

A one-way ANOVA was conducted to find the difference among the mean scores of posttest of four groups. Table 43 demonstrated the descriptive statistics of posttest among four groups. As shown in Table 44, a statistically significant difference was detected among the mean scores of posttest of four groups ($F(3, 132) = 3.405$, $p < 0.05$). Therefore, Scheffe post hoc was conducted to see between which groups the difference was observed, and the findings were illustrated in Table 45 below.

Table 45

Post hoc scheffe test for the mean scores of the posttest

		Mean Dif.	Std. Error	*p*	Lower Bound	Upper Bound
Input	Output	-1.85	2.18	0.868	-8.03	4.32
	Input + Output	0.68	2.18	0.992	-5.50	6.85
	Control	4.88	2.18	0.177	-1.29	11.06
Output	Input	1.85	2.18	0.868	-4.32	8.03
	Input + Output	2.53	2.18	0.719	-3.65	8.71
	Control	6.74	2.18	0.026	0.56	12.91
Input + Output	Input	-0.68	2.18	0.992	-6.85	5.50
	Output	-2.53	2.18	0.719	-8.71	3.65
	Control	4.21	2.18	0.298	-1.97	10.38
Control	Input	-4.88	2.18	0.177	-11.06	1.29
	Output	-6.74	2.18	0.026	-12.91	-0.56
	Input + Output	-4.21	2.18	0.298	-10.38	1.97

According to the post hoc scheffe results, there were not any significant differences between input group (*M* = 25.18, *SD* = 7.21) and output group (*M* = 27.03, *SD* = 9.97), between input group (*M* = 25.18, *SD* = 7.21) and input + output group (*M* = 24.50, *SD* = 9.09), and between input group (*M* = 25.18, *SD* = 7.21) and control group (*M* = 20.29, *SD* = 9.46). In addition, no statistically significant difference was observed between output group (*M* = 27.03, *SD* = 9.97) and input + output group (*M* = 24.50, *SD* = 9.09). Furthermore, the difference between mean values of input + output group (*M* = 24.50, *SD* = 9.09) and control group (*M* = 20.29, *SD* = 9.46) was not significant. As indicated in Table 45, the mean difference was the highest between output group (*M* = 27.03, *SD* = 9.97) and control group

(*M* = 20.29, *SD* = 9.46), and the only significant difference was detected between these groups where $p < .05$. In other words, the participants in output group significantly scored more than the ones in control group with a medium effect size ($p = 0.020$, $d = 0.69$).

4.3.3. The Findings of Delayed Posttest Results among Four Groups

Table 46

The descriptive statistics of delayed posttest among four groups

	N	Minimum	Maximum	Mean	Std. Deviation
Input	34	4.00	37.00	24.41	9.08
Output	34	7.00	36.00	26.82	9.80
Input + Output	34	5.00	36.00	23.91	10.73
Control	34	4.00	37.00	21.68	10.59
Total	136	4.00	37.00	24.21	10.13

Table 47

The mean scores of delayed posttest among four groups

	Sum of Squares	*df*	Mean Square	F	*p*
Between groups	454.88	3	151.63	1.495	0.219
Within groups	13387.35	132	101.42		
Total	13842.24	135			

The mean scores of delayed posttest of four groups were calculated by using one-way ANOVA to find possible differences among groups. Table 46 demonstrated the descriptive statistics of delayed posttest among four groups. As shown in Table 47, a statistically significant difference was not observed between delayed posttest scores of four groups ($F(3, 132) = 1.495$, $p > 0.05$). Nevertheless, post hoc scheffe test was conducted to support the findings. Table 48 illustrated that there were not any significant differences among the delayed posttest scores of input group (*M* = 24.41, *SD* = 9.08), output group (*M* = 26.82, *SD* = 9.80), input + output group (*M* = 23.91, *SD* = 10.73), and control group (*M* = 21.68, *SD* = 10.59).

Table 48

Post hoc scheffe test for the mean scores of the delayed posttest

		Mean Dif.	Std. Error	*p*	Lower Bound	Upper Bound
Input	Output	-2.41	2.44	0.807	-9.33	4.51
	Input + Output	0.50	2.44	0.998	-6.42	7.42
	Control	2.74	2.44	0.740	-4.18	9.65
Output	Input	2.41	2.44	0.807	-4.51	9.33
	Input + Output	2.91	2.44	0.701	-4.01	9.83
	Control	5.15	2.44	0.223	-1.77	12.06
Input + Output	Input	-0.50	2.44	0.998	-7.42	6.42
	Output	-2.91	2.44	0.701	-9.83	4.01
	Control	2.24	2.44	0.840	-4.68	9.15
Control	Input	-2.74	2.44	0.740	-9.65	4.18
	Output	-5.15	2.44	0.223	-12.06	1.77
	Input + Output	-2.24	2.44	0.840	-9.15	4.68

4.3.4. The Findings of Comprehension Pretest, Posttest, and Delayed Posttest Results among Four Groups

Table 49

The descriptive statistics for comprehension pretest, posttest, and delayed posttest among four groups

		N	Minimum	Maximum	Mean	Std. Deviation
Pretest	Input	34	3.00	18.00	8.94	3.79
	Output	34	2.00	18.00	9.97	4.18
	Input + Output	34	1.00	18.00	8.97	3.63
	Control	34	2.00	16.00	8.68	3.93
	Total	136	1.00	18.00	9.14	3.88
Posttest	Input	34	7.00	19.00	14.18	3.39
	Output	34	5.00	19.00	14.85	4.10
	Input + Output	34	3.00	19.00	13.50	4.07
	Control	34	6.00	18.00	11.74	3.80
	Total	136	3.00	19.00	13.57	3.98
Delayed	Input	34	4.00	19.00	13.71	4.37
	Output	34	6.00	19.00	14.74	3.93
	Input + Output	34	4.00	19.00	13.09	4.59
	Control	34	4.00	19.00	12.12	4.47
	Total	136	4.00	19.00	13.41	4.40

Table 50

The mean scores of the comprehension tests among groups

		Sum of Squares	*df*	Mean Square	F	*p*
Pretest	Between groups	33.08	3.00	11.03	0.730	0.536
	Within groups	1995.27	132.00	15.12		
	Total	2028.35	135.00			
Posttest	Between groups	183.08	3.00	61.03	4.118	0.008
	Within groups	1956.32	132.00	14.82		
	Total	2139.40	135.00			
Delayed	Between groups	123.00	3.00	41.00	2.168	0.095
	Within groups	2495.94	132.00	18.91		
	Total	2618.94	135.00			

The descriptive statistics for comprehension pre-, post-, and delayed posttest among four groups were given in Table 49. In addition, an Analysis of Variance (ANOVA) was used to compare the mean scores of comprehension pre-, post-, and delayed posttest of four groups. As shown in Table 50, there were not any significant differences in comprehension pretest and delayed posttest scores among groups ($p > 0.05$). On the other hand, it was found that there was a significant difference between comprehension test scores of four groups in posttest ($F(3, 132) = 4.118$, $p = 0.008$). Therefore, post hoc scheffe test was conducted to see between which groups the difference existed. The findings were reported in Table 51. Accordingly, there was a significant difference (p = 0,008) between the comprehension posttest scores output group ($M = 14.85$, $SD = 4.10$) and control group ($M = 11.74$, $SD = 3.80$).

Table 51

Post hoc scheffe test for the mean scores of the comprehension posttest among groups

		Mean Dif.	Std. Error	*p*	Lower Bound	Upper Bound
Input	Output	-0.68	0.93	0.913	-3.32	1.97
	Input + Output	0.68	0.93	0.913	-1.97	3.32
	Control	2.44	0.93	0.082	-0.20	5.09
Output	Input	0.68	0.93	0.913	-1.97	3.32
	Input + Output	1.35	0.93	0.554	-1.29	4.00
	Control	3.12	0.93	0.013	0.47	5.76
Input + Output	Input	-0.68	0.93	0.913	-3.32	1.97
	Output	-1.35	0.93	0.554	-4.00	1.29
	Control	1.76	0.93	0.316	-0.88	4.41
Control	Input	-2.44	0.93	0.082	-5.09	0.20
	Output	-3.12	0.93	0.013	-5.76	-0.47
	Input + Output	-1.76	0.93	0.316	-4.41	0.88

The complete findings of post hoc scheffe test for comprehension pretest, posttest, and delayed posttest were given in Appendix 19.

4.3.5. The Findings of Production Pretest, Posttest, and Delayed Posttest Results among Four Groups

Table 52

The descriptive statistics for production pretest, posttest, and delayed posttest among four groups

		N	Minimum	Maximum	Mean	Std. Deviation
Pretest	Input	34	0.00	13.00	4.44	4.02
	Output	34	0.00	18.00	5.29	4.98
	Input + Output	34	0.00	16.00	5.56	5.66
	Control	34	0.00	15.00	5.91	5.39
	Total	136	0.00	18.00	5.30	5.02
Posttest	Input	34	0.00	19.00	11.00	4.74
	Output	34	0.00	20.00	12.18	6.21
	Input + Output	34	0.00	20.00	11.00	6.22
	Control	34	0.00	18.00	8.56	6.24
	Total	136	0.00	20.00	10.68	5.97
Delayed	Input	34	0.00	19.00	10.68	5.57
	Output	34	0.00	19.00	11.94	6.19
	Input + Output	34	0.00	19.00	10.82	6.74
	Control	34	0.00	19.00	9.59	6.82
	Total	136	0.00	19.00	10.76	6.33

Table 53

The mean scores of the production tests among groups

		Sum of Squares	*df*	Mean Square	F	*p*
Pretest	Between groups	40.08	3	13.36	0.524	0.667
	Within groups	3366.56	132	25.50		
	Total	3406.64	135			
Posttest	Between groups	236.08	3	78.69	2.270	0.083
	Within groups	4575.32	132	34.66		
	Total	4811.40	135			
Delayed	Between groups	94.49	3	31.50	0.781	0.506
	Within groups	5322.50	132	40.32		
	Total	5416.99	135			

As shown in Table 52, the descriptive statistics for production pre-, post-, and delayed posttest among four groups were provided. Furthermore, to compare the mean scores of production tests of input group, output group, input + output group, and control group in three conditions, an Analysis of Variance (ANOVA) was conducted. Table 53 demonstrated that no significant difference was observed between production test scores of four groups within pretest ($F(3, 132) = 0.524$, $p > 0.05$), posttest ($F(3, 132) = 2.270$, $p > 0.05$), and delayed posttest ($F(3, 132) = 0.781$, $p > 0.05$). Nonetheless, post hoc scheffe test was applied to see between which groups the difference existed to assure the findings. The results of post hoc scheffe test for production pre-, post-, and delayed posttest were given in Appendix 20.

4.4. Findings from the Learners' Perceptions Regarding the Instruction Type They Received

After the treatment ended, and pre-, post-, and delayed posttest sessions were completed, the researcher asked for 10 volunteers from each experimental groups. Focus group interviews were done with the participants in order to gather qualitative data. The participants were expected to discuss on the treatment process and share their opinions and comments with other participants and the researcher. Focus group interview was an effective way to gain insights and retrospective data about learners' cognitive processes regarding

adverbial conjunctions after the treatment phase. The researcher was the moderator during the discussion and did not interfere with the natural flow of the interaction unless it was necessary. In addition to the quantitative data obtained from the tests and the researcher's observation during the treatment period, interviews provided triangulation in research. The data were used to interpret the test results and find possible explanations for differences in scores among groups.

4.4.1. The Learners' Perceptions in Input Group Regarding the Instruction Type They Received

According to the data gathered from the interviews of the participants in the input group, the most frequent comment about the instruction type that they found it useful to learn adverbial conjunctions by input-based instruction. They stated that it was better to see the target forms in context rather than presented separately. Since they were highlighted in the text, it was easier to notice them. It made them attract their attention to form but in a meaningful context. In addition, some of them stated that they found the topics interesting and that made them easier to focus on the reading texts. Related excerpts are given below:

It was better to learn them in context. It made me to guess the meaning and understand the text as a whole. (P30, P7, P33)

The topics were interesting and catchy so it was easier for me to follow and understand the text. In addition, I noticed the conjunctions in the text easily and inferred their meanings from the context. (P5, P12, P34)

The conjunctions were highlighted in the text so I noticed and learned them easily. As they are in a meaningful context, it was easier to understand their meanings and functions, and remember them later. (P20)

However, most of them added that there was a need for more practice. They wanted to see more examples of the target forms in exercises. They thought it would have reinforced their learning if there had been more practices including adverbial conjunctions as the following sample excerpts suggested:

I understood and learned how to use conjunctions when I encountered them in the text. It was enough but it would be better to practice them more. (P33)

The conjunctions were highlighted in the text so I noticed them easily. In addition, I encountered them many times in the texts so that made me review and remember the conjunctions. It would be better if there were more variety of activities to reinforce learning. I would like to see more examples related to the target form. (P8)

It was good to learn them in context but it would be better to study conjunctions separately. I think it was efficient to learn them implicitly in context, I could not say it (input-based instruction) had zero effect on learning- but it would be better to practice conjunctions afterwards. (P7)

Although they found it useful to learn the target language in context by input-based instruction, they demanded for more practices in a meaningful context. There was no participant who asked for explicit instruction. The following quotations are concerned with this issue:

The conjunctions were highlighted in the text so I noticed and learned them easily. As they were in a meaningful context, it was easier to understand their meanings and functions, and remember them later. It focused on meaningful learning rather than memorization, and it was more fun to learn that way. Of course, to reinforce learning, it would be better to do exercises about conjunctions more in various meaningful context. (P17) (P18)

One of the participants confirmed that there should have been production activities either as an in class activity or as a homework, and suggested that they should have got points on the condition that they completed the tasks. She thought it would encourage them to try harder. The participant's statement is given below:

I liked the texts and I think they were interesting enough to attract our attention. It was also useful for us to do input based activities where we had a chance to see various examples of target structures. The only thing I would like to add is about production practice. I think it would be better if we were supposed to write a paragraph or text including the

target forms at the end of each class or as a homework. It was also possible to get points for that to encourage students to study harder. (P12)

4.4.2. The Learners' Perceptions in Output Group Regarding the Instruction Type They Received

The participants in the output group received output-based instruction. They read unenhanced reading texts and did production activities afterwards. Most of the participants stated that they had difficulty in productive activities; however, they agreed on the effectiveness of the output activities and realized how they contributed to their knowledge of adverbial conjunctions. Therefore, the following excerpt was the most common statement in the interview:

I had difficulty in doing productive activities but I found them useful anyway. (P56, P58, P60)

P48 added that the output-based instruction was useful and sufficient for them to learn the target language. He offered that the output-based instruction could be efficient in learning other language forms as well.

I think it was a very useful way of learning target forms. It can be applied on any language forms successfully. We encountered the target forms occasionally and this made us remember them in the long term. (P48)

Bewilderingly, P42 declared that she benefited from the pretest which was used as an instrument in the study. Since the target forms were not highlighted, the participants in output group might not notice the conjunctive adverbs or they might not clearly understand what was expected from them. When considered from this point of view, some of the participants might have utilized the pretest to infer the expected outcomes of the instruction.

It was very productive for me. I liked the learning process and how it was organized. We first read the texts and then did some production activities. In addition, instead of providing Turkish translations, we learned them in meaningful context, and I think it was useful and productive. The pretest we did at the beginning was also useful for me. (P42)

On the other hand, P39 and P60 asserted that production activities served as a feedback which showed their level of progression. In addition, P56 stated that she noticed how she improved thanks to the production activities. Although P60 found the reading texts a little long, she was happy with the instruction she was exposed to.

I think we can learn conjunctions in context more efficiently. Therefore, when we were supposed to use them in context and form sentences, they functioned as feedback for me to see my improvement. (P39)

Tests showed my progression and I understood how I improved during the treatment. The pretest was really challenging for me but I could complete the posttest easily. The only thing I wanted to point out that it was sometimes distracting to read such long texts but the time spared for the class was optimal and sufficient. I would rather learn that way (in context) than focus on forms. (P60)

At first, I had difficulty in understanding and keeping up with the texts but later I noticed that I could learn English and the target forms thanks to the activities we did. Therefore, it was very productive for me. (P56)

Furthermore, P54 and P60 put emphasis on self-effort to be successful. They suggested that one should show a maximum effort and push and exert oneself to succeed.

I had difficulty in doing productive activities but I found them useful anyway. I think we should push ourselves to succeed and learn new things. (P54)

When I read the texts twice, I learned better. It was more beneficial to learn in context rather than being given Turkish translations and explanations explicitly because we had to exert ourselves to understand and learn and that made us more actively involved. (P60)

Unlike the others, although they found it beneficial to some extent, P49 and P51 announced that FonF production activities were not enough to clearly figure out the meanings and functions of the target conjunctive adverbs. Instead, they favoured for explicit instruction and focus on forms.

When I tried to do pretest I had difficulty in understanding the questions and answering them. However, I clearly noticed that I improved and learned most of them when I did posttest. The difference (improvement) was clear. It was productive in that sense. However, it would be better to learn conjunctions explicitly. I had difficulty in understanding as my proficiency level was low. (P49)

The texts were interesting and activities were useful for me. However, I would like to practice conjunctions more and it would be better to do exercises that only focus on forms directly. (P51)

P61 also shared the same opinion with them, and complained that the target forms were not noticeable in the reading texts. He expressed that they were unobtrusive and hard to notice.

It was useful but I think conjunctions were like forgotten in the texts. Conjunctions have been more salient in the text. It was hard to notice them and understand their meanings. It would be better to focus on forms (explicitly) and Turkish translations should have been given. I had difficulty in understanding as my proficiency level was low. (P61)

P63 enounced that he learned best when there was a warm up activity which contained the explicit demonstrations and Turkish translations of unknown words. He also pointed out that it was necessary to do more production activities.

It was very useful for me in general, but it would have been better if we had done more activities on conjunctions. I also prefer to study on the meanings of conjunctions and unknown words before reading, so I think they should have been provided beforehand explicitly. (P63)

4.4.3. The Learners' Perceptions in Input + Output Group Regarding the Instruction Type They Received

The participants in input + output group received the combination of input-based instruction and output-based instruction. The target adverbial conjunctions were highlighted in the text and the participants were supposed to do some productive activities following the

reading text. They were asked about their opinions and perceptions about the related instructional method. Most of the participants stated that they noticed the target words easily as they were highlighted in the text. Some of them only focused on the highlighted input without expressing any opinions about output practices.

The conjunctions were highlighted in the text so I noticed and learned them easily. As they are in a meaningful context, it was easier to understand their meanings and functions, and remember them later. It focused on meaningful learning rather than memorization, and it was more fun to learn that way. (P88)

As they attracted my attention in the text, that made me easily understand their meaning and function and how to use them in practice. Instead of making translation or giving rule explicitly, it was better for me to see them in context because I needed to work on them and tried to understand and translate them by myself. (P79)

As the conjunction were highlighted in the text, they attracted my attention. I become more familiar with them as I encountered them in the text. I think it was useful and productive way of learning the target forms. (P87)

One of the participants (P96) reported that it was not easy to infer the meanings of adverbial conjunctions as shown in the text. She added that she had difficulty in noticing them although they were highlighted. She asserted that it could be because of the length of the texts. P70 also said the reading texts were a little long and this made it difficult for him to stay focused, as stated in the following excerpt:

I had difficulty in inferring the meanings of conjunctions in the text. The reading texts were a little long; therefore, it was a little hard for me to notice them. They were highlighted in the text, and that made it easier to notice but it would have been better if the texts were consisted of shorter paragraphs. (P96)

We had seen conjunctions first in meaningful texts and then in various activities. While we were focusing on the meaning, we were practicing the target forms as well. It reinforced learning through practice. The only problem was that it was hard for me to stay focused on conjunctions when the texts were too long. (P70)

Another participant confirmed that the reading texts were a bit long and it was hard to hold his attention on the conjunctions. However, he agreed that it was useful to encounter the target forms in the meaningful context and do focus on form activities.

We had seen conjunctions first in meaningful texts and then in various activities. While we were focusing on the meaning, we were practicing the target forms as well. It reinforced learning through practice. The only problem was that it was hard for me to stay focused on conjunctions when the texts were too long. (P70)

Another point raised in the interview was that some participants did not find the output practices sufficient and there should have been more production activities. It is exemplified below:

It was efficient to highlight the target language because it attracted our attention more. The only thing I want to add is there should have been more activities related to the target forms. (P76)

The participants admitted that the instruction was useful and helped them enhance L2 learning.

We had seen conjunctions first in meaningful texts and then in various activities. It promoted learning through practice. (P79)

I had difficulty in doing productive activities but they were useful for me. It was really challenging for me to do the activities but I learned how they functioned in sentences through these productive activities. (P81)

Although I don't have enough vocabulary knowledge and my proficiency level is low, I found the productive activities highly useful. (P101)

On the other hand, P91 stated that output practices caused her to notice the gap in her L2 knowledge.

In fact, I had no difficulty in understanding their meaning and function in the text; they were clear enough. However, when it came to practice, I could not form my own sentences including the target structures. I failed to produce sentences without help. Therefore, I made a list of them and wrote down their meanings to study later at the end of each class. (P91)

P91 asserted that she comprehended the meanings and functions of the target forms; however, she had difficulty in producing them. This is the condition which, otherwise, she could not understand without any attempt at producing language. In addition, since she tried to fill the gap between what she knew and what she did not know yet, she said she prepared a word list and wrote the Turkish counterparts of each word, which is an old and common way of learning words out of their context. On the other hand, P77 opposed to that idea and pointed out the ineffectiveness of this method.

I think vice versa. We used to make a list of vocabulary and write down their meaning in high school but this way was more useful and productive than we did then. (P77)

4.4.4. The Learners' Perceptions and Opinions in Control Group Regarding the Instruction Type They Received

In control group, the participants were given the same reading texts. They were supposed to read the texts and so some comprehension questions according to the texts. The adverbial conjunctions were not typographically enhanced and there were no production activities after reading. As the participants received highly traditional instruction, they mostly mentioned about how the target forms are presented in the texts. The findings from the interviews showed that most of them agreed that the instruction they received was useful and they were pleased to learn the target language in context. Related excerpts were given below:

It was useful for me to see the target forms in a context. (P120)

I tried to understand the conjunctions in the text in order to understand the text in general. We had comprehension questions after reading, so it was enough to evaluate our understanding the text. (P113)

It was sufficient and beneficial for me. I think I showed progression when compared to the beginning of the class. (P122)

Although the target words were not salient in the texts and there were not any following activities regarding adverbial conjunctions, P123 stated that she preferred to learn L2 in context rather than focusing on forms explicitly.

I found the topics of the texts really interesting and they attracted my attention. As for conjunctions, I liked to see them in context, it showed us how to use them in context. I prefer learning that way instead of focusing on forms, it was more efficient. (P123)

Another participant (P125) opposed to P123's opinion and claimed that translations for the target forms should have been provided.

Yet, it would have been better if we had been provided with Turkish meanings. (P125)

P120 disagreed with her and defended the idea of learning in context. He asserted that it was enough to encounter the target words in context so that one could understand their functions.

I don't think so. I think it was sufficient to see them in context. It was better in terms of understanding their functions in sentences. (P120)

P125 stuck to the previous decision and added that the target forms should have been presented explicitly.

I didn't know their meanings so I didn't understand their functions. If they had been given explicitly, I would have learned better. (P125)

Another participant emphasized the self-study and declared that learners should have endeavoured to achieve success.

When I read the texts twice, learning became more permanent. I did that way to learn thoroughly. I think it was sufficient to see them in context. To learn thoroughly, we needed to make an effort, too. Therefore, I repeated and reviewed the vocabulary after class on my own. (P134)

4.5. Chapter Summary

In this chapter, findings of paired-samples t-test results for each group were calculated to see any possible differences after the treatment, if any. Later, pre-, post-, and delayed posttest results of four groups were analysed using ANOVA. In the case that there was a significant difference between groups, the post hoc test was applied. Furthermore, the results of comprehension and productions parts of the pre-, post-, and delayed posttest were analysed. Lastly, findings from the learners' perceptions and opinions regarding the instruction type they received were presented.

CHAPTER V
DISCUSSIONS, CONCLUSIONS AND IMPLICATIONS

5.1. Introduction

This chapter covers the discussion of findings of each research questions. The findings are compared and contrasted to interpret the data. In addition, conclusions and implications are presented. The chapter ends with suggestions for further research.

5.2. Discussion of the Findings

The purpose of this study was to investigate the comparative effect of input-based and output-based FonF instruction on the acquisition of adverbial conjunctions. The reason behind the selected topic was the previous studies' supporting results for input enhancement and pushed output activities in teaching and learning of different linguistic targets. While most of the studies handled them separately, this research focused on the comparative and combined effects of input- and output-based instruction. By this way, it was aimed to encourage learning by means of external and internal attention drawing techniques respectively.

In this study, participants were assigned to three experimental and one control groups to see the comparative and combined effects of input-based and output-based instruction. The input group received input-based instruction through enhanced input, the output group received output-based instruction through production activities, and the mixed group made use of enhanced input in combination with output practice. On the other hand, the control group only read the reading texts and did the related comprehension questions. Input in the control group was not enhanced or followed by output activities. The data were collected through pre-, post-, and delayed posttests from each group. They were compared within and between groups. In addition, five participants from each group were interviewed and they expressed their opinions about the instruction type they were exposed to.

More specifically, the study aimed to explore the impact of input-based and output-based instruction on the acquisition of conjunctive adverbials. In the light of the findings of

pretest, posttest, delayed posttest, and interviews, it was aimed to answer the research questions below.

5.2.1. Discussion of Findings of Research Question 1

RQ 1 - Is input-based instruction effective in learning adverbial conjunctions?

According to paired samples t-test results, there was a significant difference between pre-test mean scores and posttest mean scores within the input group. In other words, participants performed significantly better in posttest than in pretest. This finding showed that input-based instruction significantly affected EFL learners' knowledge of adverbial conjunctions. The participants in the input group were highly successful in learning the target forms. When the adverbial conjunctions were highlighted, the participants noticed them easily and it contributed to their learning. Although they did not do any productive activity afterwards, their attention was attracted to target forms in the reading text and it had a positive impact on learning adverbial conjunctions.

In addition, the mean scores in delayed posttest decreased a little, but the difference was not significant. It was obvious that the participants still remembered the target forms to a great extent in delayed posttest. It showed that retention rate of adverbial conjunctions was high in the input group. Furthermore, the findings demonstrated that there was a significant difference between pretest and delayed posttest, too. It showed that the increase in knowledge was not temporary but long lasting.

Input-based instruction which includes focused, finely tuned input (Ellis, 1999), rather than roughly-tuned comprehensible input as suggested by Krashen (1981), is required for learners to internalize the linguistic elements (VanPatten, 1996). Therefore, the findings were in line with the expected outcomes of input-based instruction. In other words, manipulating the input by making them more salient helped them internalize the target forms.

The data gathered from the interviews also suggested that the participants in the input group found input-based instruction useful in general. All of the students participated in the interview stated that they noticed the conjunctions easily and directed their attention to target

structures. They added that they tried to. They found input-based instruction sufficient and they asserted that they tried to guess and infer their meaning and function from the context.

However, it was pointed out that there was a need for practice on adverbial conjunctions. The participants attended the interview mostly concurred on the necessity for productive activities. Interestingly, they did not ask for explicit instruction unlike the participants in other groups, but most of the participants emphasized on the necessity of production activities in a meaningful context.

a) Does input-based instruction increase learners' receptive knowledge of adverbial conjunctions?

Input-based instruction significantly affected EFL learners' receptive knowledge of adverbial conjunctions. According to the findings, the participants in the input group did better in posttest and delayed posttest than they did in pretest, suggesting that input-based instruction helped enhance the learners' comprehension level of adverbial conjunctions. Although the input group and the output group were quite similar regarding their success, the input group showed more progression in posttest than the output group did in terms of comprehension. However, the retention rates of comprehension test were smaller in input group in delayed posttest.

In addition, it is essential to note that the participants got higher scores in comprehension tests than production tests. The input-based instruction may account for this difference since it inherently focuses on the input rather than the output. However, it is not the case in this condition because, despite the lower mean scores in production tests, the participants in input group showed the greatest improvement in production posttest and delayed posttest after the output group.

The findings support the idea that comprehensible input, if enhanced and made salient, attracts learners' attention to form while undertaking meaningful activities (Long, 1991). As the Noticing Hypothesis by Schmidt (1990, 1994) suggests, noticing is a prerequisite to trigger the acquisition process. The data gathered from the tests and

interviews corroborate the claim that when learners notice and make use of enhanced input, they convert input into intake more easily (AsadiAmirabadi et al., 2014).

b) Does input-based instruction increase learners' productive knowledge of adverbial conjunctions?

Input-based instruction significantly affected EFL learners' productive knowledge of adverbial conjunctions. Paired-samples t-test results showed that there was a significant difference between pretest and posttest mean scores in production test. The participants in the input group were exposed to reading texts with highlighted words, but they did not do any productive activities related to the target vocabulary. Therefore, it revealed that visually enhanced input had a boosting effect on both receptive and productive skills, and this result was important in that sense.

Moreover, as stated above, the mean differences of production tests scores were almost the same with input + output group, supporting the Universal Grammar (Chomsky 1981, Cook 1988) theory to some extent. Exposure to input is somewhat enough to trigger to set parameters (Cook, 1989), and helps learners acquire and eventually produce the target language. However, the findings displayed that providing input only, without any attempts to focus on form as in the control group, did not show much dramatic impact on learning in this study. In other words, the participants noticed and learned adverbial conjunctions better when they were enhanced with a typographical technique.

5.2.2. Discussion of Findings of Research Question 2

RQ 2 - Is output-based instruction effective in learning adverbial conjunctions?

The participants in the output group received output-based instruction. They were exposed to unenhanced reading texts, unlike the input group. However, there were production activities related to reading. They were supposed to complete the sentences in accordance with the meaning and function of the target forms. Adverbial conjunctions were not salient, and the participants focused on the meaning rather than form. They regarded the

production activities as the follow up activity after reading text, rather than deliberate focus on forms activities. That was the ultimate aim of the output-based FonF instruction.

The results of statistical analysis showed that output-based instruction significantly affected EFL learners' knowledge of adverbial conjunctions. There were significant differences between pretest and posttest, and pretest and delayed posttest within the output group. The results indicated that output-based instruction was eminently effective in learning the target language and its effect was long-lasting according to the mean scores of delayed posttest. The delayed posttest was slightly less than posttest but they were almost equal in mean scores. As a result, the participants became highly successful in posttest and delayed posttest. Therefore, it is possible to infer that learners can be successful with output-based FonF instruction without any explicit focus on forms.

As for the interviews with the participants in output group, most of the learners agreed on that there was a need for more practice regarding adverbial conjunctions. That they were the ones who expressed that demand the most was interesting because they were the ones who practiced the most together with input + output group. The reason behind this thought can be that they perceived the gap between what they know and what they do not know. They noticed the gap in their L2 and strove for reconciling them. Similarly, Izumi and Bigelow (2000) examined the noticing function of output, and suggested that output activities might help learners recognize and produce the target structures accurately.

Furthermore, some of the participants insisted on the necessity of explicit instruction and Turkish translation. They often referred to explicit instruction, most probably because they were exposed to that kind of instruction at secondary and/or high school. They assumed the practice option was only possible in focus on forms instruction. One of the participants admitted that she was suspicious about the instruction type at the beginning as she said she failed to answer almost all of the questions in pretest. However, only when she completed the posttest, she realized that she *could* do that. She managed to comprehend and produce the target forms. This doubt could be read between the lines of participants' expressions. It is possible to infer that learners are often reluctant to be part of the different instructional methods from they are accustomed to. They refrain from ambiguities and tend to resist seeing the language as a whole with form and meaning until they see the end results.

a) Does output-based instruction increase learners' receptive knowledge of adverbial conjunctions?

Output-based instruction significantly affected EFL learners' receptive knowledge of adverbial conjunctions. The highest mean scores for comprehension tests were observed in the output group. A significant difference between pretest and posttest was found regarding comprehension. The results indicated that the participants considerably learned adverbial conjunctions via output-based instruction. Moreover, there was no significant difference between posttest and delayed posttest, and they had almost equal mean scores. It revealed that retention rate of the target forms in delayed posttest was at peak, and it had the highest mean score in all groups in that sense.

b) Does output-based instruction increase learners' productive knowledge of adverbial conjunctions?

Output-based instruction significantly affected EFL learners' productive knowledge of adverbial conjunctions. The participants in output group outscored the other groups in production tests, as well. There was a significant difference between pretest and posttest regarding production while it was not found a significant difference between the mean scores of posttest and delayed posttest. The former finding showed that the participants were quite successful via output-based instruction even if the target linguistic elements were unobtrusive in the reading texts. They were supposed to complete the sentences to make a meaningful whole without attracting special attention to adverbial conjunctions typographically. However, it can be inferred that their output functioned as comprehensible output by Swain (1985), similar to the concept of comprehensible input by Krashen (1982). By this way, it triggered the learners to pay attention to the target forms to convey meaning successfully while the primary focus is still on meaning.

5.2.3. Discussion of Findings of Research Question 3

RQ 3 - Is the combination of input-based and output-based instruction effective in learning adverbial conjunctions?

The combined input-based and output-based instruction significantly affected EFL learners' knowledge of adverbial conjunctions. According to statistical results obtained from the study, there was a significant difference between pretest mean scores and posttest mean scores within the input + output group. In other words, the participants did significantly better in posttest than pretest and became highly successful in learning the target forms. There was a slight decrease in the mean scores of delayed posttest, but the difference was not significant. Furthermore, delayed posttest scores were significantly higher than pretest scores, and it proved that their retention rate was high.

The participants in the input + output group were exposed to the same reading texts with the input group in which target forms were highlighted, but they were followed by production activities as in the output group. Before they did some productive activities, their attention was attracted to highlighted adverbial conjunctions in the reading text and the participants noticed them easily. Afterwards, they were required to complete the sentences including target words to make meaningful statements. As the participants noticed them in the text in advance, they were supposed to infer the meaning and function of adverbial conjunctions, and produce appropriate and correct output.

Although the effect of the combination of input-based and output-based instruction was statistically significant, the mean scores of posttest and delayed posttest were lower than the input group and the output group. Since this method was aimed to make use of the advantageous of both instructional types, the results were distinctive in terms of interpreting eclectic instructional method.

a) Does input + output-based instruction increase learners' receptive knowledge of adverbial conjunctions?

The combination of input-based and output-based instruction significantly affected EFL learners' receptive knowledge of adverbial conjunctions. The data displayed that there was a significant difference in pretest and posttest with regards to comprehension. The participants scored significantly higher in posttest than pretest. This was an indication of development in learners' L2. It also reassured the findings of the input group and output group, suggesting that when learners were provided enhanced input and practised through production activities, learning became more efficient.

b) Does input + output-based instruction increase learners' productive knowledge of adverbial conjunctions?

Input + output-based instruction significantly affected EFL learners' productive knowledge of adverbial conjunctions. The paired samples t-test results demonstrated that there was a statistically significant difference between the mean scores of production pretest and posttest. This finding proved that the participants acquired the linguistic elements subject to this study to a great extent. Although the gain in scores was lower than the input group and the output group alone, they displayed an outstanding performance in posttest. Similarly, they got high scores with a little decrease in delayed posttest.

5.2.4. Discussion of Findings of Research Question 4

RQ 4 - Which one is the most effective on L2 learners' knowledge of adverbial conjunctions among the different instructional methods?

In the study, there were four groups, including three experimental and one control group. The experimental groups were named as the input group, which received input-based instruction through textually enhanced input, the output group that received output-based instruction through production activities, and the input + output group which were exposed to production activities following enhanced input. On the other hand, the control group had the same reading texts but unlike experimental groups, their texts were neither enhanced nor

followed by output practice. They only answered comprehension questions related to the reading texts.

In paired samples t-tests, all of the experimental groups showed distinguished improvements in posttest and delayed test. Each test had two parts, namely comprehension and production which measured the levels of receptive and productive skills of participants, respectively. It was revealed that they were successful in learning the adverbial conjunctions and the findings from both tests clearly demonstrated that input-based instruction, output-based instruction, and their combination promoted their L2 development.

As a result, all of the participants in three experimental groups and the control group did significantly better after they were exposed to the reading texts, and the following activities if any. However, they differed in their degree of success. While the output group outscored the other experimental groups, the only significant difference was found between the output group and the control group in posttest. This significant difference was no longer observed in delayed test, though. To get more detailed information about the source of the difference between two groups, ANOVA tests were done to compare and contrast two parts of the posttest, i.e. comprehension and production. It was seen that there was no significant difference between the output group and the control group in terms of production test scores. However, a significant difference was found between two groups with regard to comprehension test scores.

The fact that the output group was found the most effective on EFL learners' knowledge of adverbial conjunctions among the different instructional methods, compromises with the supporters of output-based instruction and suggesting that learners' attempt to form a meaningful output can lead to language development (Swain, 2000). The output-based instruction can be based on Swain's Output Hypothesis (1985, 1995, 2000), and some researchers agree on the impact of output on L2 acquisition (Izumi and Bigelow, 2000; Izumi, 2002; Smith, 2015; Toth, 2006; Vanpatten, 2004). It is possible to infer from the findings that producing meaningful output helped learners notice the gap in their L2 as Smith (2015) and Swain and Lapkin (1995) suggested.

The interviews with the participants in the output group were useful to interpret the results. They agreed that they found production activities highly useful although they found them difficult. Most of the participants stated that the output activities pushed them to try harder to be successful because they noticed there was a gap between what they knew and what they wanted to express. It was reported that they had to exert themselves to understand and learn and that made them more actively involved in the learning process.

In addition, most of the participants in the output group were content with how adverbial conjunctions were presented in the text although they were not textually highlighted. They indicated that learning the target forms in a meaningful context was useful, but some of them stated that there was a need for explicit explanation and instruction regarding the target linguistic forms. Moreover, one of the participants said that target words were lost in the texts, they were not salient and so they were hard to notice. Interestingly, the number of participants who asked for (more) productive activities was the highest in the output group even though they learned the target forms via output-based instruction, and already did many productive activities. As participant 39 said the output functioned as feedback for them, and they noticed the gap in their L2.

It is vital to note that the control group also showed progression in posttest scores. Their performance in posttest was significantly better than it was in pretest. As for the comprehension and production parts of the tests, the participants in the control group got significantly higher scores in comprehension and production posttest than they did in pretest. Furthermore, there was an increase in their retention rate instead of decrease in the control group, unlike experimental groups. This finding may offer the idea that learning continues and L2 knowledge develops over time on a small scale but steadily if there are not any interruption or treatment to expedite the process. In this sense, Krashen's Comprehensible Input Hypothesis (1982) can explain the situation that learners can show progress when they encounter with comprehensible input in their natural flow.

Furthermore, although most of the research deals with backward effects of testing, a few studies investigate its forward effect. Pretesting which is introduced prior to instructional practices may also have significant impacts on learning and performance outcomes. Pretests could improve retention (Carpenter et al., 2018) and learning (Yang et al., 2019), and they

may result in better performances (Todd et al., 2021; Latimier et al., 2019). Hereunder, the fact that the control group in this study, together with the experimental groups, did significantly better in posttest can be explained by the priming effect of pretesting. One of the participants admitted that he benefited from pretest to understand what was expected to learn from them in the focus group interviews. It could be seen as a proof of priming effect on learning new information. Pretests might facilitate learning and help them understand the learning outcomes, and act accordingly.

In addition, it should not be forgotten that the control group was also exposed to the same reading texts including the target forms, but they were unenhanced. The output group also received the same reading text with the control group in this sense. The only difference between them was the output practices that the output group did after reading. The control group, on the other hand, answered the comprehension questions related to the reading text. It should be kept in mind that they engaged in comprehension-based activities which required them to understand the text thoroughly including the sentences with the target words. As the conjunctions were the key words to understand the relationship between two linked sentences, they were of importance in successfully completing the activities. Otherwise would have been unimaginable if they had not shown any progression to some extent. The primary aim was to show the degree of effects of different instructional methods to lead better learning on the available ongoing teaching pratices.

Accordingly, although comprehensible input is essential, it is not decisively sufficient in acquiring the language as attributing language acquisition to input only is far from reality. For instance, French immersion programs were not a disappointment, the students in the program were exposed to plentiful comprehensible input and succeeded to some extent. They got similar scores with their francophone peers on listening and reading comprehension tests. However, they lagged behind in speaking and writing skills of native speakers of French. These findings tended to discredit the idea that comprehensible input was “the only true cause of second language acquisition” (Krashen, 1984: 61).

Therefore, there is a need for FonF approach to ameliorate the learner performance (Swain, 1995). One of the ways of applying FonF instruction is using enriched input (Ellis, 2001) which was also one of the treatment types of experimental groups subject to this study.

The input is highlighted and more salient to the learners so that the targeted linguistic item attracts their attention and promotes acquisition (Sharwood Smith, 1993). Another treatment group received output-based instruction to trigger L2 learning as a form of FonF approach. The findings were in line with the researchers who proposed that the pivotal role of output cannot be ignored (e.g. Izumi and Bigelow, 2000; Izumi, 2002; Toth, 2006).

In this study, as stated before, the output group got the highest scores both in comprehension and production tests in all groups including the experimental and control groups. However, the only significant difference was found between the output group and the control group in posttest. These findings are partly in line with the previous studies in the related literature. For example, Salimi and Shams (2016) compared the relative effectiveness of input-based and output-based tasks on writing performance of EFL, and found the superiority of the output-based tasks over learners' autonomy in writing. Similarly, Ahmadi and Panahandeh (2016) revealed that output-based instruction yielded better results than input-based instruction on learning English phrasal verbs. On the other hand, Kalanzadeh et al. (2018) conducted a study on the mixed impact of visual input enhancement, explicit instruction, pushed output, and corrective feedback on the acquisition of conjunctive adverbs. They stated that explicit instruction + pushed output + explicit corrective feedback group performed better than the other groups. Lastly, in their study on retention of English word stress, Hassanzadeh and Salehizadeh (2020) demonstrated that output group did significantly better than input-enhancement, corrective feedback, and control groups in word-reading tests.

On the other hand, the findings are different from many studies which examined the comparison of similar groups. For instance, Izumi and Bigelow (2000) investigated whether the noticing function of output helped ESL learners recognize and produce the target grammatical structures. They found that there was no significance difference between the experimental group which completed production activities during the treatment and the control group which worked on comprehension tasks. In another study by Erlam, et al. (2009), the results were also different. In that case, both the input group and the output group improved significantly more proficiency on implicit and explicit knowledge of the target structure than the control group. Similarly, on their study on the acquisition of collocations Gholami and Farvardin (2017) demonstrated that both input and output groups outperformed

control while there was no significant difference between two experimental groups. Lastly, the results of the productive vocabulary test in Namaziandost et al.'s study (2019) displayed that experimental groups outscored the control group; however, it was not found a significant difference between the performances of the input-based group and the output-based group.

Although the input group became fairly successful in both comprehension and production tests, it was the output group which significantly performed better than the control group. Accordingly, this study also yielded highly different results from some studies which have found the superiority of input-based instruction to output-based instruction. For instance, Boostan Saadi and Saeidi (2018) revealed that the input and output groups did better than the control group in acquiring the target forms, but the input-based group was significantly more successful than the output-based group. In addition, Farahian and Avarzamani (2019) conducted a study on the acquisition of passive voice by applying processing instruction, dictogloss, and output instruction. The findings of interpretation and production tasks showed that the input group outperformed the other groups in both tasks. Lastly, in Kaivanpanah et al.'s (2019) study. there were three experimental groups, namely textual enhancement, processing instruction, and output-based instruction. Although the difference was not significant in posttest, processing instruction which was one of the input groups outscored the output group on the delayed posttest.

Regarding the research that examined the relative and combined effect of input-based instruction and output-based instruction, the findings of this study showed similarities with only few research in the related literature. Izumi (2002) conducted a study including the groups which received enhanced input, output, enhanced input plus output, and unenhanced input without output and a control group. As a result of sentence combination, picture-cued sentence completion, interpretation, and grammaticality judgement tests, it was found that the output group and the input plus output group did better than the others. There was no significant difference between these two groups, though. One of the findings differed from the current study in that input group failed to show measurable improvement in L2 knowledge. Another research that examined different FonF instructional types was by Eş (2003). There were three groups, namely input flood, input plus output, and input plus output accompanied by feedback. The input group in this study was different from the current study since input flood not input enhancement technique was used. Similar with Izumi's (2002)

study, input group did not show significant progression while both of the output groups displayed considerable success in learning L2 forms.

The findings of the present study were not in line with some research which have examined the combined effects of input-based and output-based instruction. However, it should be kept in mind that these studies differ from the current study in the approach they deliver input-based and output-based instruction. For instance, Kirk (2013) investigated the effect of processing instruction as a type of input-based instruction only and its three combinations with output practices, and found that the input group outscored the other groups in the interpretation task, but they got similar scores in production tasks. In two studies by Benati and Batziou (2017, 2019), the similar results were obtained from interpretation and production tests. Accordingly, input only and input plus output groups outperformed the output only group.

In another study, Tanaka (1999) examined the acquisition of relative clause in written and spoken modes by experimenting three groups: comprehension, production, and comprehension plus production groups. The results demonstrated that mixed practice surpassed the other groups in comprehension and production tests. In addition, Tanaka (2001) examined two types psychological verbs using the same practices in the previous study. The findings were different, though. It was found that comprehension only, production only, and combination groups showed similar developments in proficiency. On the other hand, Smith (2015) investigated the combined effect of input-based and output-based instruction. In that case, there was no input only or output only groups to be compared. Instead, there were two groups called early and delayed groups which received comprehension and production practice in different sessions since it was a time-series design. According to the results, both groups showed high success suggesting that combination of input and output instruction significantly improved L2 knowledge.

a) Which one is the most effective on L2 learners' receptive knowledge of adverbial conjunctions among the different instructional methods?

The output-based instruction was the most effective on EFL learners' receptive knowledge of conjunctive adverbs among the different instructional methods. The

participants in the output group who also outscored the other groups with regard to the total mean scores in posttest and delayed posttest became the most successful group in the study. In addition, according to the findings, a significant difference between the output group and the control group was observed.

Furthermore, the participants in the input group showed outstanding success in comprehension posttest and delayed posttest; however, there was no significant difference between the other groups. The input + output group was also highly successful both in posttest and delayed posttest, but it was not found a significant difference between the other groups.

Although the participants in the control group showed progress in terms of comprehension skills, they fell behind the experimental groups. Their development was slow but steady, and their scores continued to increase in the delayed posttest unlike other groups. However, it was not a sufficient progress, calling for a need for reinforcement. Instead of leaving learners in the natural flow of L2 development, it can be suggested that a more effective instruction which speeds up and strengthen learning should be applied.

The groups which included input-based instruction inherently focused on receptive skills and were supposed to improve comprehension. Yet, they were not as successful as the participants in the output group which received output-based instruction. The reason behind this can be the participants' false perception about their learning. Learners may not notice the gap between what they know and what they do not know until they attempt to produce language. Their own outputs serve as a kind of feedback for them to understand what goes wrong. During the production process, L2 learners first speculate about the right usage of a language form or structure and try to generate accurate and appropriate forms besides conveying meaning, and reflect on their output. They experiment the target language forms, modify their output, and develop their interlanguage (Swain, 1995).

The findings are surprising as they are not compatible with many studies which compared the relative effectiveness of input-based instruction and output-based instruction, and measured the size of effect by using comprehension and production tests. Some of them have found the superiority of input groups to output groups in interpretation tasks. Firstly,

Benati's (2001) study showed that the group that received input-based instruction outperformed the group that received output-based instruction in interpretation task. In addition, in another study, Benati (2005) compared the effects of input-based (processing instruction), traditional instruction and output-based instruction on L2 acquisition. The findings showed that the input group did better than the other two groups in the interpretation test. Similarly, a study comparing processing information, meaningful output, and control group was conducted by Vanpatten et al. (2009) and it was found that input group did better than output group on the interpretation task.

As mentioned before, the input group, the output group, and the input + output group yielded similar results in comprehension tests, and there were not any significant differences among them. The results are partly in line with many studies in the related literature in that input-based instruction and output-based instruction have yielded similar performances in comprehension tasks. For instance, Toth (2006) investigated the impact of input-based instruction by means of processing instruction and communicative output tasks. Both groups showed similar improvements according to the results of grammaticality judgement test. Similarly, Morgan-Short and Bowden (2006) compared input-based instruction based on processing instruction model and meaningful output-based instruction, and found that both groups surpassed the control group on interpretation tasks, but there was no significant difference between two experimental groups. On the other hand, Keating and Farley (2008) studied on three treatment groups, and asserted that input group outscored the meaning based drills group, but not the output group on the interpretation task. Furthermore, there was no significant difference between the input and output groups with regards to comprehension and noticing in Aydoğan Baykan's (2010) study.

Furthermore, the following studies have also resulted in similar performances of the participants who received input-based instruction and the participants who received output-based instruction. In their study, Farley and Aslan (2012) found out that both treatment groups, input-based instruction and an output-based instruction, made equal gains in the interpretation task. In addition, Rassaei (2012) compared five intact classes control, textual enhancement, input enrichment, meaningful output, and explicit instruction groups, and they got similar scores in grammaticality judgement test. In another study by Mostafa and Kim (2021), the input-based group and the output-based group received explicit instruction, and

error correction and oral narrative production tests were run. As a result, both experimental groups outperformed the control group in the error correction task. Lastly, Fakher Ajabshir (2022), there were four groups, namely textual enhancement, input flooding, and output-based instruction and a control group. The findings showed that the performances of textual enhancement and output based instruction groups were similar in the pragmatic comprehension test.

However, it should be kept in mind that they are partly in line with the current study because the only significant difference was observed between the output group and the control group in posttest and more specifically in comprehension part of the posttest. The participants in the output group performed better than the other groups in all tests, there were not any significant differences found between the experimental groups, though. In that sense, this study has a distinctive result contributing the related literature.

b) Which one is the most effective on L2 learners' productive knowledge of adverbial conjunctions among the different instructional methods?

The output-based instruction was the most effective on EFL learners' productive knowledge of adverbial conjunctions among the different instructional methods. The combination of input-based and output-based instruction and the input-based instruction followed it, respectively. However, no significant difference was found between groups. Therefore, the only significant difference between groups existed in comprehension test in posttest and there were not found any significant difference between groups in production tests in posttest and delayed posttest.

The groups which included output-based instruction inherently focused on productive skills and were supposed to improve production. In this sense, the results were predictable as the most successful groups were the output group and the input + output group in production posttest and delayed posttest. Yet, they did not perform significantly better than the other experimental group, namely the input group, and the control group.

According to these results, it can be inferred that FonF output-based instruction leads to improvement firstly in comprehension, then in production. That means the productive

skills follow on the receptive skills. This finding partly support the ideas in the 1980s that output is the result of learning and speaking derives from acquisition (Krashen, 1985). In that case, we can tentatively call it proficiency in production comes after proficiency in comprehension. However, it is not possible to reject Swain's argument in her Output Hypothesis (1985; 1995; 2000; 2005) that output cannot merely be accepted as the outcome of language acquisition but it also plays a vital role in achieving target like proficiency. It can be suggested that output groups could have gained more outstanding success and created a significant difference between groups in terms of productive skills if the output-based instruction had been applied for a longer time period.

Although the output group got the highest scores in production tests, there were not any significant differences between groups in this study. The findings were compatible with the following studies. As mentioned before, although there were differences in interpretation tasks in Benati's (2001) study, both the groups which received input-based instruction and output-based instruction got similar scores in the production test. In another study by Benati (2005), input-based (processing instruction), traditional instruction and output-based instruction groups also showed similar progress in the production test. Similarly, Vanpatten et al. (2009) found that input and output groups showed equal progress on the sentence level production test.

However, the findings of this study are not in line with some studies in the literature. For instance, Toth (2006) revealed that output group surpassed the input group and the control group in his study. Similarly, Morgan-Short and Bowden (2006) suggested that output group did significantly better than control group on production tasks. On the other hand, in Aydoğan Baykan's (2010) study, output group were superior to the input group in production. In Keating and Farley's (2008) study, the participants in the input group lagged behind the other two experimental groups on the production test. In addition, Farley and Aslan (2012) found that output group outperformed the input and control groups in the production task. The output group in Rassaei's (2012) study also scored significantly higher in the written production test. Moreover, in their study, Mostafa and Kim (2021) revealed that the output group scored higher than the input group in the oral narrative production test. Lastly, output group outscored the textual enhancement, input flooding, and control groups in the production test in Fakher Ajabshir's (2022) study.

5.2.5. Discussion of Findings of Research Question 5

RQ 5 - What are the learners' perceptions regarding the instruction type they received?

To gain insight about the perceptions of participants, focus group interviews were conducted within each group. The participants in input group generally found the treatment useful in learning adverbial conjunctions. They favoured input-based instruction as they stated it was better to encounter the target forms in a meaningful context rather than seeing them in isolation. In addition, they suggested that they could easily notice the target words in the reading text since they were highlighted. It was asserted that input-based instruction by means of input enhancement helped them attract their attention to form while they were engaging in meaningful activity. They mostly agreed on the idea that they could catch the meanings and the functions of the adverbial conjunctions much more easily as they were salient in the text.

However, there were some points they wanted to be improved or added. They asked for more examples of the target linguistic items. Some of them did not find the frequency of instances they encountered sufficient and wanted to see them in a variety of context. However, some participants in other groups implied that the reading texts were a little long, so it was hard for them to stay focused. The only way to provide more examples, in this case, is to add more input activities, but there was not enough time allocated for each session. However, it may not work as well because they may get bored and lose their attention.

Another point they offered that although they found enhanced input beneficial in attracting their attention to the target forms, they demanded for production activities. They were content with learning the linguistic structures in meaningful context as they could easily comprehend their meanings and functions. However, they felt it was inadequate to achieve proficiency in the related subject. There can be two possible reasons behind that statement. First, they might have difficulty in completing the production part in the tests even after the treatment, and realized that there was a need for production activities. Another reason can be that there was no chance of testing their proficiency. They might not feel secure and sufficient about their knowledge because they never engaged in production as a way of

formulating and testing out hypotheses with the language, i.e. the process in which output is adjusted or revised by applying interlanguage resources (Swain, 1995).

In fact, this is an expected problem that can be seen in input-based instruction. It is inherently comprehension based which have little or no place for production. This finding is in line with the discussion that input may not decisively sufficient in the acquisition of language. It is proposed that the pivotal role of output cannot be ignored since attributing language acquisition to input is far from reality (e.g. Izumi and Bigelow, 2000; Izumi, 2002; Toth, 2006). As Izumi (2002) indicates output is necessary in actively processing language, which may not possible with input only.

On the other hand, the participants in the output group agreed on the effectiveness of the output activities even though they found them difficult. They stated that production activities contributed to develop their proficiency. It was asserted that the output practices were useful and adequate, and they served as a feedback which helped the learners promote their language development. In her Output Hypothesis, Swain (1985; 1995; 2000; 2005) opposed the idea that output is the outcome of language acquisition. Rather, it is required to notice the gap while processing the language and develop accuracy and fluency in the target language according to Smith (2015). As Vanpatten (2004) asserts producing a language form paves the way for language acquisition. Furthermore, Swain (1985) acknowledges output triggers acquisition by pushing learners to use the language accurately and properly.

Moreover, it was stated that output-based instruction helped them notice how they improved thanks to the production activities. They also attracted attention to self-effort to succeed, and claimed that they as L2 learners should actively be involved in learning process by trying hard to be successful. It can be inferred that they regard themselves as actively involved in their learning process, that is the active agent in learning when engaging in producing the target language. Hereupon, it is possible to say that learners may feel as passive receivers of information unless they experiment their own language forms.

The participants who received output-based instruction complained about some issues related to the treatment. Firstly, they asserted that the target words were not salient in the text, so they had difficulty to notice them. Thus, they were unable to understand their

meanings and functions adequately and properly. Since the adverbial conjunctions were not highlighted in the text, the participants might not understand where they should have paid attention and what was expected from them. Therewithal, one of the participants admitted that she benefited from the pretest which was used as an instrument in the study. That is, we can say that the participants might have utilized the pretest to infer the expected outcomes of the instruction.

Another point the participants emphasized was that production activities were not enough to master the language, and it was hard to figure out the appropriate and correct usage of adverbial conjunctions from the context. Therefore, there was a need for explicit instruction and clear demonstrations of the target linguistic forms. They demanded for Turkish translations and focus on forms explicitly. Although the output group outscored the other groups in posttest, the participants were still not satisfied with the treatment they received. It can be inferred that they would have felt more secure if they had practiced discrete linguistic structures. One of the reasons can be the teaching method they accustomed to in their previous experiences. Most of the teachers still adopt a more methodological options such as focus on forms (FonFs). It can be naively assumed that they have learned to learn in such a way even if they are not necessarily more successful.

On the other hand, the participants in input + output group agreed on the other participants in the input group in terms of saliency of the target forms and alleged that they noticed them easily as they were highlighted in the text. They also emphasized that the instruction they received was useful and help them develop language proficiency. Practicing adverbial conjunctions while their attention was still on meaning was challenging but beneficial for them.

They indicated that although they successfully comprehend the meaning and function, it was hard for them to produce language. That enabled them to notice the gap between what they thought they knew and what they could produce. They might not have realized the gap in their L2 knowledge without any production attempt.

Furthermore, when one of the participants stated that she studied the target words by writing down Turkish translations, which is an insufficient but a common way of learning

words out of context, another participant disagreed with her and alleged that it was ineffective. In addition, there was a consensus on the need for more practice, but unlike the participants in the output group, they did not ask for explicit instruction. The reason behind this can be that they were aware of what they had to pay attention to in the text because the target words were highlighted and salient for them.

The comment about the length of the reading passages was mostly noted by the participants in input + output group. They asserted that the texts were a little long to stay focused. The participants suggested that they had difficulty in holding their attention on the adverbial conjunctions due to the length of the texts. That may be true but it does not explain the difference in scores since the reading texts were the same in length in all groups.

Although this group made use of both enhanced input and output activities, they lagged behind the output group. One possible reason can be explained by interpreting their comments about the length of the texts. They might have found them long and hard to digest because they were already engaging in many activities and processes. Their attention might have been distracted by both the highlighted input and output practices. Therefore, it can be inferred that divided attention may harm rather than help L2 learners acquiring the target language. In addition, after they were exposed to enhanced input and production activities including the enhanced target forms, there might have been too much focus on form. Thus, they probably directed their full attention to forms by breaking its connection with meaning.

Lastly, focus group interviews were made with the control group, as well. Although they did not get any treatment, it was useful to interpret their perceptions as they were given the same reading texts. They mostly agreed on the efficiency of learning a language in context although the target forms were not typographically enhanced and followed by production practice. It was emphasized that it was better to learn a language in context rather than focusing on forms explicitly. It seems that comprehension questions that they needed to answer after reading were enough to check their understanding since they had to find out the meanings and functions of target words in order to understand the text in general.

Nevertheless, it was asserted that there was a need for explicit instruction and translations when necessary. It seems that there were such participants who asked for explicit

instruction existed in almost all groups. It can be inferred that this demand does not necessarily emerge due to the instructional method, but rather individual differences in learning styles and preferences. This argument can also be supported by the remarkable number of participants who believed that they themselves needed to make an effort to succeed. One of the participants stated that she read the texts twice to learn thoroughly, and repeat and review the related vocabulary after class. The belief that it is necessary to show self-effort may also indicate the different preferences and learning styles. However, as they are not variables in this study and there are not any instruments to examine their learning styles and preferences, this idea cannot go beyond than prediction.

All in all, almost all participants agreed on that the instructions they received during the treatment were effective to some extent. However, most of the participants in experimental groups asserted that there should be (more) productive activities including the target adverbial conjunctions. They often complained about the insufficiency of practice related to the target forms. Some of them requested for explicit instruction.

Surprisingly, the more the participants encountered productive activities, the more they asked for practice, as in the output and the input + output group. In addition, the participants in the input group demanded for practices in a meaningful context while the ones in the output groups, who already had that kind of production activities, claimed for more explicit instruction and focus on forms. The perceptions displayed a continuum from focus on form to focus on forms in line with how explicit the instruction type they received.

Although the study did not particularly examine the motivation variable, it seems that they were more motivated to learn particularly because they found the topics in the reading texts interesting. They stated that it was easier to follow the text when they were interested. It is possible to say that the participants in all groups shared the same idea.

5.3. Conclusions

Focus on form which was introduced by Long (1991) has been supported by the latest research in language acquisition as it enables to focus on form while L2 learners are engaging in meaningful activities (Ellis, 2001). Therefore, it was decided to conduct this study which

examined the effectiveness of different types of FonF on acquiring the adverbial conjunctions within the reading texts. Accordingly, there were four groups, namely the input group, the output group, the input + output group and the control group. The participants were exposed to enhanced input in the input group while the participants in the output group were expected to do production activities in a meaningful context. The combination of input-based and output-based instruction was presented by means of enhanced input and output practices in the input + output group. The participants in the control group did not have either enhanced input or production activities, but they only read the same texts and did some comprehension questions.

The study mainly investigated the effectiveness of different focus on form treatments. To collect quantitative data, the same test was given on three conditions, before, immediate after, and late after the treatment. Paired-samples t-tests were implemented to see the impacts of input-based, output-based, and the combination of input-based and output-based instruction within each group. In addition, the mean scores of pre-, post-, and delayed posttest were compared and contrasted among groups. Post hoc tests were conducted to find out between which groups there was a significant difference. Lastly, the results were supported by the qualitative data obtained from focus group interviews within each group. They were used to interpret the quantitative data collected from the tests.

According to the findings and discussion, the following conclusions were made for RQ 1, RQ2, and RQ3. Firstly, all experimental groups showed significant improvements in posttest and their success partially lasted long as they got similar mean scores in delayed posttest. On the other hand, the L2 knowledge of the control group also significantly increased in posttest, too. Moreover, their delayed posttest scores were a little higher than the posttest, suggesting that they were still processing the information and kept learning. However, they were way behind the experimental groups in scores. The reason could be that the treatment the experimental groups received accelerated the learning process by helping the participants get higher scores in a short time.

As a result, the findings proved that input-based, output-based, and the combination of input-based and output-based FonF instructions significantly affected EFL learners' knowledge of adverbial conjunctions. The significant differences between the pretest and the

posttest mean scores of four groups were also observed in both comprehension and production parts of the tests. Therefore, it was concluded that all treatment options significantly affected EFL learners' receptive and productive knowledge of adverbial conjunctions.

As for RQ 4, the results of ANOVA and post hoc tests revealed that the group which received output-based instruction significantly outperformed the control group. That is, the output-based instruction was the most effective on EFL learners' knowledge of adverbial conjunctions among the different instructional methods. It was examined deeply and looked for any significant differences in comprehension and production tests. A significant difference was found between the output group and the control group in the comprehension test. However, there was no significant difference between these two groups in production test.

On the other hand, although no significant difference was detected between the treatment groups, all groups performed better than the control group. Therefore, it can be tentatively concluded that FonF approach by means of enhanced input, meaningful output, and the combination of two, became efficient in learning the target language but in varying degrees. It can be suggested that FonF facilitated and accelerated learning.

RQ 5 asked about the learners' perceptions and opinions regarding the instruction type they received. Focus group interviews were made with the participants in each group regarding their perceptions of the treatment they were exposed to. By taking the participants' expressions into consideration, it is possible to reach some conclusions.

Firstly, the participants in the input group generally found the input-based instruction useful. They stated that they could easily notice the target words in the texts as they were highlighted. They directed their attention to form while they were engaging with meaningful activities. However, they stated that it would have been better if there had been more instances of the target forms they encountered. Moreover, they asked for production activities to boost their learning. The mean differences showed that they were exceptionally successful in comprehension test; however, they fell behind the output group in production test.

The participants in the output group agreed on the effectiveness of production activities. Output practices helped them notice the gap between what they could do and what they wanted to do. It was implied that output functioned as a feedback and learners learned from their own output. They were pushed to deliver a message accurately and appropriately in production tasks. This could be interpreted as what Swain (2005) called 'comprehensible output'. In addition, as the target words were unenhanced in the text, production activities might not be sufficient alone to focus on what was expected to focus on from them. Although the only significant difference was between the output and the control group, their mean score was higher than the others, it seems that output practices were not enough to yield significant performances in production test. It can be inferred that they were also aware that there was a need for more practice and explicit instruction.

The third group was input + output group, and their perceptions mostly in line with the input and the output group regarding enhanced input and production activities. They claimed that the adverbial conjunctions were salient in the text, and the output activities were useful to practice the form. They affirmed that enhanced input helped them pay attention to form and try to understand their meanings and functions in context. In spite of the combination of alleged advantages of input-based and output-based instruction, they could not outscore the others.

Enhanced input and output are characterized by drawing attention to form. Therefore, one possible explanation for the results is that their attention might have been divided as they were exposed to both enhanced input and output practice. Furthermore, the highlighted target forms attracted the participants' attention first, then they did some production activities including the target forms. Thus, the participants' attention was mostly drawn to form because they were very well aware of the target forms ever after. It can be inferred that too much focus on form might have detracted them from meaning by loosening the meaning and form relationship.

The results of this study revealed remarkable findings regarding input-based instruction and output-based instruction, by yielding different results from many previous studies. As the number of research which has examined the combined effects of input-based

and output-based instruction is very few, the findings of this study are of importance contribution to the literature. It is expected that this study will contribute to the relevant literature by causing to question the existing literature.

5.4. Implications

This study investigated the effect of input-based instruction, output-based instruction, and the combination of two. Findings showed that the only significant difference was between the output and the control group in posttest. However, all experimental groups performed better than the control group. The control group lagged behind the three experimental groups both in comprehension and production tests. According to the findings, it is possible to make some implications.

Interestingly, learners tend to be mistaken that they have learned the target form when they understand the instruction and input presented to them. Such fallacies are deceptive, and L2 learners do not notice their real proficiencies until they perform it. To check their understanding, output practices in a meaningful context can be highly useful. Even if they do not improve their productive skills, they will probably contribute to their comprehension as it has been observed in this study. It can be said that output-based instruction helps L2 learners notice the mismatch between what they think they know and what they really know in that sense.

In addition, input-based instruction by means of input enhancement can assist learners to notice the target words or grammar structures in a meaningful context. The findings suggest that it can lead to high success in L2 acquisition especially in comprehension by improving receptive skills. It can be inferred from the review of the existing literature that input-based instruction helps acquiring content words rather than function words which have little or no meaning on their own.

Furthermore, the combination of two instructions can be advantageous to some extent. It offers diversity in learning context; and the use of different techniques increases the chance of reaching more leaners with various learning styles. However, it should be kept in mind that they are to be organized in content and timing very well. Otherwise, the combination of

two or more instructional methods may cause learners to feel overwhelmed and lose their interest in learning. Moreover, learners' attention may be divided into different things at the same time, and resulted in confusion and failure.

5.5. Suggestions for Further Research

This study was conducted at tertiary level and with beginner learners of English. Since the participants were adult L2 learners and their proficiency level was low, their preferences for learning methods could be different. In addition, as they stated they experienced language courses with more traditional methods, their previous learning experiences could affect their learning styles. It might have resulted in more advantageous or disadvantageous learning milieu for them. Therefore, this study can be carried out with learners at different levels and with different levels of proficiency.

Furthermore, the adverbial conjunctions are more or less salient and easy to attract attention. However, the current study could come up with highly different results with unobtrusive grammatical structures or less salient function words. Moreover, multiple choice, grammaticality judgement, fill-in-the-blanks, and sentence completion tests together with focus group interviews were used as instruments in this study. Different data collection instruments could be used to achieve more valid results. In addition, more qualitative data could be collected from learners to be able to interpret the quantitative data. The research could be conducted by teachers other than the researcher and their perceptions and reflections could be shared and discussed along with the learners'.

Focus group interviews helped enormously to interpret and support the test results. However, the findings are limited to the participants' responses that the researcher had to suppose that they were sincere in their ideas and comments. The findings could be supported by a language learning preference questionnaire. In addition, only their proficiency levels before and after the treatment were measured in this study. Other variables that can affect the proficiency of L2 learners can be included in further research.

The perceptions of the participants were limited to their treatment type they received. Further studies can be conducted in which L2 learners are exposed to different treatments

sequentially. They can write reaction papers after each treatment, and a report at the end. In addition to theoretical background behind the choice of teaching philosophies, we can make use of learners' needs and perceptions.

5.6. Chapter Summary

This chapter discussed the findings of each research questions. The results of quantitative and qualitative data were used to interpret the findings and draw conclusions. Lastly, implications and suggestions for further research were introduced.

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APPENDIX 1

PRE- / POST- / DELAYED TESTS

The discrete-point multiple choice questions

1. I cannot decide. It is a good idea to spend a holiday on the beach in Antalya. -----, it will also be fun to go skiing at Uludağ.

a) therefore b) on the other hand c) in other words d) still

2. Cars must stop at red traffic lights. -----, motorbikes should stop too.

a) in contrast b) in other words c) similarly d) as a result

3. Growing apples is an interesting hobby for me; -----, I don't need to buy apples from the supermarket.

a) however b) finally c) instead d) in addition

4. Living in an apartment is good, but it has some disadvantages. -----, you don't have a garden.

a) for instance b) as a result c) in contrast d) nevertheless

5. June is bored with her life and work in Japan; -----, she has decided to move to Italy and find a new job there.

a) otherwise b) on the other hand c) however d) therefore

6. City life is noisy and tiring. -----, village life is quiet and peaceful.

a) as a result b) in contrast c) in fact d) in other words

7. I have moved from Istanbul. --- I do not live in Istanbul now.

a) instead b) nevertheless c) in other words d) however

8. Jason did not study; -----, he failed the test.

a) in addition b) as a result c) on the other hand d) in contrast

9. I really like cats; -----, my parents do not allow me having pets.

a) however b) as a result c) in fact d) for instance

10. Frank didn't give a present to his sister for her birthday; -----, he gave her $50.

a) in other words b) instead c) still d) in addition

Fill-in-the-blank items

1. She bought him a cat. _____, he was allergic to cats, so they had to give it back.
2. He played computer games all night. _____, he was late for work this morning.
3. Vegetables and fruit are cheaper in bazaar. _____, they are fresher than the ones in supermarkets.
4. I am happy that I quit smoking. _____, I do not smoke anymore.
5. Robyn does not have much money; _____, his brother Ryan is a millionaire.
6. Mrs. Lively didn't clean the house herself; _____, she got a cleaner to do it.
7. Sheila always studies hard; _____, she becomes successful in all exams.
8. My husband wants to stay at home and rest, but _____, I have to go out and do shopping for the party.
9. Krashen knows a lot of languages. _____, he can speak Spanish and French.
10. John is very good at Maths; _____, he isn't very good at Music.

Sentence Completion Test

1. I wanted to see a horror movie; however,

_____

2. Today, the weather is cold, wet, and windy; therefore,

_____

3. It can be hard to do household chores, so it is better to share them. For example, men or husbands can wash the dishes. Similarly, women or wives

_____

4. In Antalya, the summers are very hot and humid. On the other hand,

_____

5. Today, I am very busy. I need to go shopping. In addition,

_____

6. We got up late. As a result,

_____

7. I have two brothers. The younger one, Dave, is very tall. In contrast, Liam

_____

8. I have watched many movies and TV series. For instance,

_____

9. Korean people do not use a spoon and a knife. Instead, they

_____

10. Emma does not eat meat at all. In other words,

_____

Grammaticality Judgement Test

T / F 1. Mark has worked hard to grow his company. Instead, he is a millionaire now.

T / F 2. Tarek had a lot of work to do, but he did not do anything. However, he watched TV and slept all day.

T / F 3. More than 3 million people have watched the movie 'Avatar'. In other words, the movie is very popular.

T / F 4. She needs to buy a new computer. For instance, she does not have enough money for it.

T / F 5. My mother loves jazz music. On the other hand, my father likes listening to classical music.

T / F 6. I do not feel good today. Therefore, I will not go to work until I get better. I need to rest at home.

T / F 7. Klein is very talkative and social. Finally, his sister is shy and quiet. They are different in personality.

T / F 8. Vegetables are a good source of fibres and vitamins. Similarly, fruit has many minerals as well as vitamins.

T / F 9. You should find a new hobby. As a result, you can try playing tennis, fishing, or cooking.

T / F 10. David has a terrible headache; in addition, he feels cold. I think he has the flu.

APPENDIX 2

THE STATISTICAL RELIABILITY VALUES OF PILOT TEST

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
M1	17.9800	98.787	.362	.935
M2	18.0600	97.936	.430	.935
M3	18.4200	98.468	.427	.935
M4	17.9700	98.494	.398	.935
M5	18.1200	98.672	.345	.936
M6	18.1300	96.215	.598	.933
M7	18.1500	98.634	.347	.936
M8	18.0100	97.485	.493	.934
M9	17.9900	97.566	.492	.934
M10	18.0200	97.394	.499	.934
GJT1	18.2200	96.658	.553	.934
GJT2	18.2100	100.208	.188	.937
GJT3	18.4300	103.581	-.163	.939
GJT4	18.1600	97.025	.512	.934
GJT5	18.0400	97.291	.503	.934
GJT6	17.9400	98.158	.451	.935
GJT7	18.0600	97.936	.430	.935
GJT8	17.9500	97.846	.481	.934
GJT9	18.2500	97.482	.471	.934
GJT10	17.9500	98.492	.407	.935
F1	18.2700	96.320	.598	.933
F2	18.2400	96.164	.608	.933
F3	18.4200	98.509	.422	.935
F4	18.5200	99.101	.436	.935

F5	18.3700	97.589	.499	.934
F6	18.4600	98.817	.413	.935
F7	18.3600	96.394	.628	.933
F8	18.3600	96.839	.578	.933
F9	18.3600	97.081	.551	.934
F10	18.4500	98.755	.413	.935
SC1	18.1700	95.193	.704	.932
SC2	18.1400	95.334	.690	.932
SC3	18.2900	95.178	.728	.932
SC4	18.4500	99.280	.348	.935
SC5	18.1900	96.277	.590	.933
SC6	18.2200	95.668	.657	.933
SC7	18.2300	95.452	.682	.932
SC8	18.2500	95.523	.678	.932
SC9	18.1800	95.301	.692	.932
SC10	18.1400	94.970	.729	.932

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
18.6700	102.345	10.11655	40

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,936	,934	40

APPENDIX 3

THE STATISTICAL RELIABILITY VALUES OF PILOT TEST FOR COMPREHENSION PART

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
M1	10.6500	21.765	.457	.845
M2	10.7300	21.290	.538	.842
M3	11.0900	21.881	.465	.845
M4	10.6400	21.849	.442	.846
M5	10.7900	21.703	.432	.846
M6	10.8000	21.354	.510	.843
M7	10.8200	21.644	.443	.846
M8	10.6800	21.210	.576	.840
M9	10.6600	21.237	.580	.840
M10	10.6900	21.085	.602	.839
GJT1	10.8900	21.392	.502	.843
GJT2	10.8800	23.278	.090	.860
GJT3	11.1000	24.737	-.224	.869
GJT4	10.8300	20.890	.614	.838
GJT5	10.7100	21.703	.448	.846
GJT6	10.6100	21.735	.488	.844
GJT7	10.7300	21.755	.431	.846
GJT8	10.6200	21.632	.507	.843
GJT9	10.9200	22.135	.339	.850
GJT10	10.6200	21.632	.507	.843

Scale Statistics

Mean	Variance	Std. Deviation	N of Items

11.3400	23.964	4.89531	20

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.853	.851	20

APPENDIX 4

THE STATISTICAL RELIABILITY VALUES OF PILOT TEST FOR PRODUCTION PART

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
F1	6.9300	35.359	.613	.931
F2	6.9000	35.323	.612	.931
F3	7.0800	37.024	.374	.935
F4	7.1800	36.897	.497	.933
F5	7.0300	36.312	.481	.933
F6	7.1200	36.996	.408	.934
F7	7.0200	35.676	.594	.931
F8	7.0200	35.777	.575	.931
F9	7.0200	35.979	.538	.932
F10	7.1100	36.665	.467	.933
SC1	6.8300	34.526	.747	.928
SC2	6.8000	34.404	.771	.927
SC3	6.9500	34.694	.741	.928
SC4	7.1100	36.867	.426	.934
SC5	6.8500	34.997	.664	.930
SC6	6.8800	34.531	.751	.928
SC7	6.8900	34.584	.743	.928
SC8	6.9100	34.709	.725	.928
SC9	6.8400	34.358	.778	.927
SC10	6.8000	34.222	.804	.927

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
7.3300	39.193	6.26043	20

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.934	.932	20

APPENDIX 5

PERMISSION DOCUMENTS

T.C.
ÇANAKKALE ONSEKİZ MART ÜNİVERSİTESİ REKTÖRLÜĞÜ
Öğrenci İşleri Daire Başkanlığı

Sayı : E-93130991-730.08.03-2100250235 28.12.2021
Konu : Anket Çalışması (Nuriye DEĞİRMENCİ UYSAL)

LİSANSÜSTÜ EĞİTİM ENSTİTÜSÜ MÜDÜRLÜĞÜNE

Balıkesir Üniversitesi Öğrenci İşleri Daire Başkanlığı'nın 27.12.2021 tarihli 28711322-044.06.01-E.99623 sayılı yazısı yazımız ekinde gönderilmiştir.
Bilgilerinizi ve gereğini arz ederim.

Ayhan MONUS
Genel Sekreter

Ek: 27.12.2021 tarihli 28711322-044.06.01-E.99623 sayılı yazı

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Kep Adresi: comu@hs01.kep.tr
Bilgi için : Cumali Özler
Bilgisayar İşletmeni
Telefon No: (0 286) 2180018 - 10025

T.C.
BALIKESİR ÜNİVERSİTESİ REKTÖRLÜĞÜ
Öğrenci İşleri Daire Başkanlığı

Sayı : E-28711322-044-99623 27.12.2021
Konu : Anket Çalışması (Nuriye DEĞİRMENCİ UYSAL)

ÇANAKKALE ONSEKİZ MART ÜNİVERSİTESİ REKTÖRLÜĞÜNE
Çanakkale Onsekiz Mart Üniversitesi Terzioglu Yerleskesi Rektörlük Binası PK:17100
Merkez/ÇANAKKALE

Üniversitemiz Yabancı Diller Yüksekokulu Müdürlüğünün 24.12.2021 tarihli ve E-99172 sayılı Lisansüstü Eğitim Enstitüsü Yabancı Diller Eğitimi Anabilim Dalı İngiliz Dili Eğitimi Bilim Dalı öğrenciniz Nuriye DEĞİRMENCİ UYSAL'ın, "The Effect of Input-based and Output-based Focuson Form Instruction on the Acquisition of Adverbial Conjunctions" konulu çalışması ile ilgili cevabi yazısı ekte gönderilmiştir.

Gereğini ve bilgilerinizi arz ederim.

Prof. Dr. Mehmet NARLI
Rektör a.
Rektör Yardımcısı

Ek:Yazı (1 Sayfa)

Bu belge, güvenli elektronik imza ile imzalanmıştır.

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e-Posta:ogris@balikesir.edu.tr Web:www.balikesir.edu.tr
Kep Adresi:balikesiruniversitesi@hs01.kep.tr

Bilgi için: Nihal DEMİRCAN
Unvanı: Bilgisayar İşletmeni
Tel No: 0266 6121400-1703

Evrak Tarih ve Sayısı: 24.12.2021-E.99172

T.C.
BALIKESİR ÜNİVERSİTESİ
Yabancı Diller Yüksekokulu Müdürlüğü

Sayı : E-51335585-044-99172 24.12.2021
Konu : Anket Çalışması (Nuriye Değirmenci UYSAL)

REKTÖRLÜK MAKAMINA
(Öğrenci İşleri Daire Başkanlığı)

İlgi : 23.12.2021 tarihli ve 28711322/044/98293 sayılı yazı.

Çanakkale Onsekiz Mart Üniversitesi Lisansüstü Eğitim Enstitüsü Yabancı Diller Eğitimi Anabilim Dalı İngiliz Dili Eğitimi Bilim Dalı öğrencisi Nuriye DEĞİRMENCİ UYSAL'ın, "The Effect of Input-based and Output-based Focuson Form Instruction on the Acquisition of Adverbial Conjunctions" adlı tez çalışmasını Yüksekokulumuzda gerçekleştirmesi uygun görülmektedir.

Bilgilerinizi ve gereğini arz ederim

Öğr. Gör. Emirhan YIKILMAZPEHLİVAN
Müdür V.

Bu belge, güvenli elektronik imza ile imzalanmıştır.

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Kep Adresi:balikesiruniversitesi@hs01.kep.tr

Bilgi için: Serap Kalınoğlu
Unvanı: Yüksekokul Sekreteri
Tel No: 0 266 6121253

T.C.
BALIKESİR ÜNİVERSİTESİ REKTÖRLÜĞÜ
Öğrenci İşleri Daire Başkanlığı

Sayı : 28711322-044-
Konu : Veri Uygulama İzni (Nuriye Değirmenci UYSAL)

ÇANAKKALE ONSEKİZ MART ÜNİVERSİTESİ REKTÖRLÜĞÜNE

İlgi : 13/01/2020 tarihli ve 93130991/044-2000007591 sayılı yazınız

Üniversitemiz Necatibey Eğitim Fakültesi Dekanlığının 03/02/2020 tarihli ve 38173241-044-E.7224 sayılı Üniversiteniz Eğitim Bilimleri Enstitüsü Yabancı Diller Eğitimi Anabilim Dalı İngiliz Dili Eğitimi Doktora Programı öğrenciniz Nuriye DEĞİRMENCİ UYSAL'ın "The Effect of Input-Based and Output-Based Focus on Form Instruction on the Acquisition of Adverbial Conjunctions" başlıklı tez çalışması ile ilgili cevabi yazısı ekte gönderilmiştir.

Bilgilerinizi ve gereğini arz ederim

e-imzalıdır
Prof. Dr.Mehmet NARLI
Rektör a.
Rektör Yardımcısı

Ek: Yazı (1 Adet)

Evrakı Doğrulamak İçin : https://ebys.balikesir.edu.tr/enVision/Dogrula/6LBZK0U
Çağış Yerleşkesi, Bigadiç Yolu Üzeri 17. Km. Ayrıntılı bilgi için irtibat: Nihal Şentürk
Altıeylül/BALIKESİR
Tel: 0266 6121400-1703 Faks: 0266 6121428
E-Posta: ogris@balikesir.edu.tr Elektronik ağ: www.balikesir.edu.tr

Evrak Tarih ve Sayısı: 03/02/2020-E.7224

T.C.
BALIKESİR ÜNİVERSİTESİ
Necatibey Eğitim Fakültesi Dekanlığı

Sayı : 38173241-044-
Konu : Veri Uygulama İzni (Nuriye Değirmenci UYSAL)

REKTÖRLÜK MAKAMINA
(Öğrenci İşleri Daire Başkanlığı)

İlgi : 27/01/2020 tarihli ve 28711322/044/5835 sayılı yazı.

İlgi tarih ve sayılı yazınıza istinaden; Çanakkale Onsekiz Mart Üniversitesi Eğitim Bilimleri Enstitüsü Yabancı Diller Eğitimi Anabilim Dalı İngiliz Dili Eğitimi Doktora Programı öğrencisi Nuriye DEĞİRMENCİ UYSAL'ın "The Effect of Input-Based and Output-Based Focus on Form Instruction on the Acquisition of Adverbial Conjunctions" başlıklı tez çalışmasını ile ilgili Yabancı Diller Eğitimi Bölüm Başkanlığı'nın 31/01/2020 tarih ve 6680 sayılı yazısı ekte sunulmuştur. Söz konusu çalışma talebi; çalışmayı bizzat yapması ve en az iki hafta önceden haber vermesi koşulu ile Dekanlığımızca uygun görülmüştür.

Bilgilerinizi ve gereğini arz ederim.

e-imzalıdır
Prof. Dr. Mehmet BAŞTÜRK
Dekan

Dinkçiler Mah. Soma Cad. Merkez/Balıkesir
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Faks: 2662495005
Elektronik ağ: www.balikesir.edu.tr/nef

Evrak Tarih ve Sayısı: 31/01/2020-E.6680

T.C.
NECATİBEY EĞİTİM FAKÜLTESİ DEKANLIĞI
Yabancı Diller Eğitimi Bölüm Başkanlığı

Sayı : 43180908-300-
Konu : Tez Çalışması (Nuriye DEĞİRMENCİ UYSAL)

NECATİBEY EĞİTİM FAKÜLTESİ DEKANLIĞINA

İlgi : 30/01/2020 tarihli ve 38173241/300/6597 sayılı yazı.

Çanakkale Onsekiz Mart Üniversitesi Eğitim Bilimleri Enstitüsü YabancıDiller Eğitimi Anabilim Dalı İngiliz Dili Eğitimi Doktora Programı öğrencisi Nuriye DEĞİRMENCİ UYSAL'ın "The Effect of InputBased and Output-Based Focus on Form Instruction on the Acquisition of Adverbial Conjunctions" başlıklı tez çalışmasını uygulama talebi incelendi.

Öğrencinin çalışmayı iki hafta önce haber vermesi ve kendisinin yapması koşuluyla uygun görülmüştür .

Bilgilerinizi ve gereğini arz ederim.

e-imzalıdır
Prof. Dr. Mehmet BAŞTÜRK
Bölüm Başkanı

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T.C.
ÇANAKKALE ONSEKİZ MART ÜNİVERSİTESİ REKTÖRLÜĞÜ
Lisansüstü Eğitim Enstitüsü
Bilimsel Araştırma Etik Kurulu

Sayı : E-84026528-050.01.04-2100230110 30.11.2021
Konu : Başvuru İncelenmesi

Sayın Öğr.Gör.Nuriye DEĞİRMENCİ UYSAL

Yürütücülüğünüzü yapmış olduğunuz 2021-YÖNP-0847 nolu projeniz ile ilgili Bilimsel Araştırmalar Etik Kurulu'nun almış olduğu 25.11.2021 tarih ve 20/37 sayılı kararı aşağıdadır.

Bilgilerinize rica ederim.

KARAR:37- Öğr.Gör.Nuriye DEĞİRMENCİ UYSAL'ın sorumlu yürütücülüğünü yaptığı "The Effect of Input-based and Output-based Focus on Form Instruction on the Acquisition of Adverbial Conjunctions" başlıklı araştırmasının, ilgili kurumun izninin alınması ve Bilimsel Araştırmalar Etik Kuruluna sunulması koşulu ile Etik Kurul ilkelerine **uygun olduğuna** oy birliği ile karar verilmiştir.

Prof. Dr. Salih Zeki GENÇ
Kurul Başkanı

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Kep Adresi: comu@hs01.kep.tr
Bilgi için : Nimet İnal
Fen Bilimleri Enstitüsü Etik Kurulu Memur
Telefon No:

APPENDIX 6

THE STATISTICAL RELIABILITY VALUES OF PRETEST

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
PREM1	13.9559	56.991	.201	.881
PREM2	13.8971	56.656	.247	.880
PREM3	14.2206	57.151	.229	.880
PREM4	13.9706	55.688	.378	.878
PREM5	14.1176	56.919	.230	.881
PREM6	13.9853	56.681	.244	.881
PREM7	14.2059	57.468	.173	.881
PREM8	13.9191	55.319	.429	.877
PREM9	14.0000	56.207	.309	.879
PREM10	14.0368	57.132	.187	.882
PREGJT1	14.0662	55.440	.427	.877
PREGJT2	13.9779	57.785	.096	.883
PREGJT3	14.2647	59.663	-.176	.886
PREGJT4	13.8750	55.355	.428	.877
PREGJT5	13.7794	56.277	.318	.879
PREGJT6	13.9191	56.075	.325	.879
PREGJT7	13.8456	54.783	.513	.875
PREGJT8	13.6985	55.620	.451	.877
PREGJT9	14.0882	57.755	.107	.883
PREGJT10	13.8603	56.403	.285	.880
PREF1	14.2353	56.759	.301	.879
PREF2	14.1471	55.475	.453	.877
PREF3	14.2794	57.432	.214	.880
PREF4	14.4044	58.243	.169	.881
PREF5	14.2279	55.925	.435	.877
PREF6	14.3088	57.341	.254	.880

PREF7	14.2059	55.661	.460	.877
PREF8	14.2794	56.899	.310	.879
PREF9	14.2574	56.385	.382	.878
PREF10	14.2426	57.133	.243	.880
PRESC1	14.0882	54.229	.610	.874
PRESC2	14.0368	53.843	.648	.873
PRESC3	14.1985	55.197	.529	.875
PRESC4	14.1691	55.490	.462	.876
PRESC5	14.1103	54.351	.602	.874
PRESC6	14.1029	54.182	.624	.873
PRESC7	14.0074	53.504	.689	.872
PRESC8	14.0735	54.172	.612	.873
PRESC9	14.1103	54.114	.638	.873
PRESC10	14.0368	53.739	.663	.872

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
14.4412	58.767	7.66596	40

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.881	.878	40

APPENDIX 7

THE STATISTICAL RELIABILITY VALUES OF COMPREHENSION PART OF PRETEST

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
PREM1	8.6544	13.857	.245	.725
PREM2	8.5956	13.917	.230	.727
PREM3	8.9191	13.956	.288	.722
PREM4	8.6691	13.423	.368	.715
PREM5	8.8162	13.796	.289	.721
PREM6	8.6838	13.522	.341	.717
PREM7	8.9044	13.909	.294	.721
PREM8	8.6176	13.068	.471	.705
PREM9	8.6985	13.545	.336	.717
PREM10	8.7353	13.663	.307	.720
PREGJT1	8.7647	13.174	.458	.707
PREGJT2	8.6765	14.324	.119	.736
PREGJT3	8.9632	15.413	-.178	.751
PREGJT4	8.5735	13.639	.310	.720
PREGJT5	8.4779	13.777	.290	.721
PREGJT6	8.6176	13.542	.334	.718
PREGJT7	8.5441	13.080	.478	.705
PREGJT8	8.3971	13.693	.351	.717
PREGJT9	8.7868	14.095	.194	.729
PREGJT10	8.5588	13.641	.311	.720

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
9.1397	15.025	3.87618	20

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.731	.724	20

APPENDIX 8

THE STATISTICAL RELIABILITY VALUES OF PRODUCTION PART OF PRETEST

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
PREF1	5.0956	23.894	.296	.899
PREF2	5.0074	23.074	.444	.895
PREF3	5.1397	24.180	.252	.899
PREF4	5.2647	24.833	.194	.899
PREF5	5.0882	23.622	.361	.897
PREF6	5.1691	24.023	.329	.897
PREF7	5.0662	23.396	.402	.896
PREF8	5.1397	24.032	.294	.898
PREF9	5.1176	23.660	.376	.897
PREF10	5.1029	24.078	.253	.900
PRESC1	4.9485	21.694	.741	.886
PRESC2	4.8971	21.767	.702	.887
PRESC3	5.0588	22.574	.605	.891
PRESC4	5.0294	22.695	.550	.892
PRESC5	4.9706	22.058	.666	.889
PRESC6	4.9632	22.021	.670	.888
PRESC7	4.8676	21.271	.810	.884
PRESC8	4.9338	21.781	.713	.887
PRESC9	4.9706	21.895	.705	.887
PRESC10	4.8971	21.382	.792	.884

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
5.3015	25.234	5.02338	20

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.898	.888	20

APPENDIX 9

THE STATISTICAL RELIABILITY VALUES OF POSTTEST

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
POSTM1	23.5000	82.326	.340	.922
POSTM2	23.4926	80.533	.580	.920
POSTM3	23.8456	83.035	.214	.924
POSTM4	23.5000	81.304	.473	.921
POSTM5	23.7574	82.081	.315	.923
POSTM6	23.4779	80.207	.638	.919
POSTM7	23.7647	81.915	.334	.922
POSTM8	23.4632	81.584	.464	.921
POSTM9	23.4706	80.784	.567	.920
POSTM10	23.5147	81.585	.427	.921
POSTGJT1	23.5368	80.384	.566	.920
POSTGJT2	23.6103	83.573	.158	.924
POSTGJT3	24.0735	89.120	-.563	.930
POSTGJT4	23.4559	80.887	.568	.920
POSTGJT5	23.4706	82.488	.335	.922
POSTGJT6	23.4706	81.792	.429	.921
POSTGJT7	23.5000	81.022	.509	.921
POSTGJT8	23.3897	83.647	.224	.923
POSTGJT9	23.6691	82.386	.285	.923
POSTGJT10	23.4706	81.718	.439	.921
POSTF1	23.6985	80.183	.533	.920
POSTF2	23.6471	80.023	.561	.920
POSTF3	23.8309	81.045	.438	.921
POSTF4	24.0147	83.081	.249	.923
POSTF5	23.6765	80.339	.518	.920
POSTF6	23.9559	81.761	.390	.922

POSTF7	23.7206	80.173	.532	.920
POSTF8	23.8235	80.946	.448	.921
POSTF9	23.7500	79.981	.553	.920
POSTF10	23.8309	81.534	.382	.922
POSTSC1	23.6471	80.112	.551	.920
POSTSC2	23.5956	79.117	.689	.918
POSTSC3	23.7353	79.292	.633	.919
POSTSC4	23.8162	79.870	.571	.920
POSTSC5	23.5735	79.520	.651	.919
POSTSC6	23.6397	79.240	.656	.919
POSTSC7	23.5515	79.183	.708	.918
POSTSC8	23.5882	79.000	.707	.918
POSTSC9	23.6618	79.840	.579	.920
POSTSC10	23.5588	79.389	.677	.919

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
24.2500	85.196	9.23018	40

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.923	.921	40

APPENDIX 10

THE STATISTICAL RELIABILITY VALUES OF COMPREHENSION PART OF POSTTEST

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
POSTM1	12.8162	14.284	.418	.785
POSTM2	12.8088	13.711	.612	.774
POSTM3	13.1618	14.581	.272	.795
POSTM4	12.8162	14.166	.456	.783
POSTM5	13.0735	14.246	.356	.789
POSTM6	12.7941	13.765	.610	.774
POSTM7	13.0809	14.401	.314	.792
POSTM8	12.7794	14.455	.391	.787
POSTM9	12.7868	14.110	.500	.781
POSTM10	12.8309	14.142	.453	.783
POSTGJT1	12.8529	13.830	.537	.778
POSTGJT2	12.9265	15.120	.132	.803
POSTGJT3	13.3897	17.366	-.522	.831
POSTGJT4	12.7721	14.014	.549	.778
POSTGJT5	12.7868	14.628	.329	.790
POSTGJT6	12.7868	14.406	.401	.786
POSTGJT7	12.8162	14.092	.480	.781
POSTGJT8	12.7059	15.142	.216	.796
POSTGJT9	12.9853	14.311	.345	.790
POSTGJT10	12.7868	14.332	.426	.785

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
13.5662	15.847	3.98088	20

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.797	.795	20

APPENDIX 11

THE STATISTICAL RELIABILITY VALUES OF PRODUCTION PART OF POSTTEST

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
POSTF1	10.1324	32.353	.535	.911
POSTF2	10.0809	32.371	.542	.910
POSTF3	10.2647	32.981	.424	.913
POSTF4	10.4485	34.353	.222	.917
POSTF5	10.1103	32.366	.536	.911
POSTF6	10.3897	33.514	.362	.914
POSTF7	10.1544	32.709	.468	.912
POSTF8	10.2574	33.022	.416	.913
POSTF9	10.1838	32.462	.512	.911
POSTF10	10.2647	33.174	.389	.914
POSTSC1	10.0809	32.164	.581	.909
POSTSC2	10.0294	31.584	.713	.906
POSTSC3	10.1691	31.756	.642	.908
POSTSC4	10.2500	32.219	.562	.910
POSTSC5	10.0074	31.726	.698	.907
POSTSC6	10.0735	31.476	.715	.906
POSTSC7	9.9853	31.378	.785	.905
POSTSC8	10.0221	31.251	.784	.905
POSTSC9	10.0956	31.954	.616	.909
POSTSC10	9.9926	31.400	.775	.905

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
10.6838	35.640	5.96993	20

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.914	.914	20

APPENDIX 12

THE STATISTICAL RELIABILITY VALUES OF DELAYED POSTTEST

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
DM1	23.4118	97.370	.549	.938
DM2	23.3750	97.569	.559	.938
DM3	23.7500	99.330	.268	.940
DM4	23.4191	96.453	.653	.937
DM5	23.6397	98.010	.399	.939
DM6	23.4412	97.078	.561	.937
DM7	23.6176	99.023	.296	.940
DM8	23.4338	97.418	.526	.938
DM9	23.4265	96.113	.687	.936
DM10	23.4853	97.600	.477	.938
DGJT1	23.4779	96.222	.635	.937
DGJT2	23.5515	100.827	.117	.941
DGJT3	24.0294	105.362	-.457	.944
DGJT4	23.3971	97.500	.546	.938
DGJT5	23.3750	100.251	.221	.940
DGJT6	23.4779	97.748	.464	.938
DGJT7	23.4412	96.915	.580	.937
DGJT8	23.3235	99.761	.321	.939
DGJT9	23.5221	97.807	.440	.938
DGJT10	23.3750	98.414	.452	.938
DF1	23.6029	96.493	.560	.937
DF2	23.5368	95.376	.699	.936
DF3	23.7500	97.670	.439	.938
DF4	23.9338	99.159	.339	.939
DF5	23.7132	97.169	.487	.938
DF6	23.8897	97.862	.466	.938

DF7	23.6176	96.519	.555	.937
DF8	23.7132	96.828	.522	.938
DF9	23.6176	95.601	.652	.937
DF10	23.8235	98.813	.335	.939
DSC1	23.5000	95.437	.710	.936
DSC2	23.5221	95.362	.707	.936
DSC3	23.6176	95.408	.673	.936
DSC4	23.6691	96.045	.602	.937
DSC5	23.5147	95.274	.721	.936
DSC6	23.5882	95.785	.638	.937
DSC7	23.4926	95.289	.732	.936
DSC8	23.4926	94.681	.800	.935
DSC9	23.5515	96.027	.623	.937
DSC10	23.4779	95.229	.748	.936

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
24.1691	102.216	10.11017	40

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.939	.937	40

APPENDIX 13

THE STATISTICAL RELIABILITY VALUES OF COMPREHENSION PART OF DELAYED POSTTEST

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
DM1	12.6544	17.294	.536	.826
DM2	12.6176	17.393	.544	.826
DM3	12.9926	17.948	.287	.838
DM4	12.6618	16.966	.627	.822
DM5	12.8824	17.497	.394	.833
DM6	12.6838	17.151	.554	.825
DM7	12.8603	17.869	.304	.837
DM8	12.6765	17.258	.529	.826
DM9	12.6691	16.697	.700	.818
DM10	12.7279	17.281	.490	.828
DGJT1	12.7206	16.514	.709	.817
DGJT2	12.7941	18.905	.060	.848
DGJT3	13.2721	20.925	-.517	.863
DGJT4	12.6397	17.210	.576	.824
DGJT5	12.6176	18.490	.213	.840
DGJT6	12.7206	17.358	.473	.829
DGJT7	12.6838	16.870	.635	.821
DGJT8	12.5662	18.322	.305	.836
DGJT9	12.7647	17.500	.416	.831
DGJT10	12.6176	17.690	.453	.830

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
13.4118	19.400	4.40449	20

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.838	.833	20

APPENDIX 14

THE STATISTICAL RELIABILITY VALUES OF PRODUCTION PART OF DELAYED POSTTEST

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
DF1	10.1912	36.615	.542	.928
DF2	10.1250	35.814	.704	.925
DF3	10.3382	37.277	.430	.931
DF4	10.5221	38.029	.365	.931
DF5	10.3015	36.834	.501	.929
DF6	10.4779	37.348	.468	.930
DF7	10.2059	36.594	.543	.928
DF8	10.3015	36.760	.514	.929
DF9	10.2059	36.224	.608	.927
DF10	10.4118	37.963	.329	.932
DSC1	10.0882	35.666	.751	.924
DSC2	10.1103	35.817	.710	.925
DSC3	10.2059	35.824	.678	.926
DSC4	10.2574	36.178	.612	.927
DSC5	10.1029	35.545	.765	.924
DSC6	10.1765	36.013	.651	.926
DSC7	10.0809	35.586	.771	.924
DSC8	10.0809	35.290	.827	.923
DSC9	10.1397	35.988	.666	.926
DSC10	10.0662	35.559	.787	.924

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
10.7574	40.126	6.33450	20

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.930	.930	20

APPENDIX 15

SAMPLE LESSON PLAN FOR INPUT GROUP

Lesson Plan (Input Group)

School : Balıkesir University

Level and Class : A1 / English as a compulsory course given in the first year of university education.

Subject : Adverbial Conjuctions

Materials and Aids : A reading text called "Professional Sports" from the book "More to Read I" (Cezairlioğlu Türkan and Türkan, 2006: 313). Input activities related to the text within the scope of focus on form instruction.

Class Profile : 7 male and 27 female students,
Mean age is 19.29

Expected Outcomes : The learners are expected to

- ✓ understand the text and talk about the topic of the reading text
- ✓ notice highlighted adverbial conjunctions in the text
- ✓ recognize the adverbial conjunctions and understand their meanings
- ✓ correlate the meaning with the function of the target forms
- ✓ produce the target forms without being exposed to any production activities.

Time	**Procedures**
15 min.	***Warm- Up*** ➢ The teacher asks some questions about the reading topic such as: "What are the most popular sports in the world / in Turkey?" "Are you interested in any sports?" "Is there anyone who plays in a sports team?" "Do you have an idea about what the word "amateur" means?" ➢ The teacher elicits the answers and introduces the topic of the day.
30 min.	***Main Activity*** ➢ The teacher gives directions. ➢ The students read the text first.

	➢ The teacher goes over every paragraph by paraphrasing the text according to their proficiency level. As their English proficiency level is low, there is a need for more explanation about the reading text. ➢ The students ask questions if they have difficulty in understanding the text. ➢ The teacher provides more explanations and and makes sure that they understand the main idea and the details of the text.
10 min.	**Break for 10 minutes**
30 min.	***Post Activity*** ➢ The teacher introduces the comprehension questions which are organized as input-based activities in line with focus on form instruction. ➢ The students do some input activities in which they are not required to produce anything. ➢ While doing the input activities, they choose the correct options, decide if the expressions are true or false, and/or match the two sentences linked with adverbial conjunctions. ➢ The activities include the adverbial conjunctions they encounter in the text. ➢ The target forms are highlighted and made salient both in the text and activities. ➢ The teacher does not give explicit instruction about the adverbial conjunctions. ➢ The teacher gives implicit explanations if the students ask about any information that impedes meaning.
10 min.	***Wrap-up*** ➢ The teacher asks questions about the topic of the day and tries to understand if they have understood the topic such as: "What is the difference between "amateur" and "professional?"

	"What is the role of professional athletes in society?" "Do you agree with the writer's ideas?" "Is there anyone who can make a review?"
5 min.	***Questions and Comments*** ➢ The teacher asks the students if there are any questions related to the topic of the day. ➢ The teacher asks the students if they have had difficulty in understanding the text. ➢ The teachers asks the students if they have had difficulty in doing the activities.

APPENDIX 16

SAMPLE LESSON PLAN FOR OUTPUT GROUP

Lesson Plan (Output Group)

School : Balıkesir University

Level and Class : A1 / English as a compulsory course given in the first year of university education

Subject : Adverbial Conjuctions

Materials and Aids : A reading text called "Gender: What Makes Us Different from Them?" from the book "More to Read I" (Cezairlioğlu Türkan and Türkan, 2006: 189). Output activities related to the text within the scope of focus on form instruction.

Class Profile : 8 male and 26 female students
Mean age is 19.06

Expected Outcomes : The learners are expected to

- ✓ understand the text and talk about the topic of the reading text
- ✓ recognize the adverbial conjunctions and understand their meanings although they are not highlighted in the text and production activities.
- ✓ correlate the meaning with the function of the target forms
- ✓ produce the target forms in the production activities based on focus on form instruction

Time	**Procedures**
15 min.	***Warm- Up*** ➢ The teacher asks some questions about the reading topic such as "Do you think women and men are different? If so, in what ways?"; "How do you define friendship?" "Do you think women and men define friendship the same way?"; "Do you think there is a difference between women and men in terms of communication?" ➢ The teacher elicits the answers and introduces the topic of the day.

30 min.	***Main Activity*** ➢ The teacher gives directions. ➢ The students read the text first. ➢ The teacher reviews each paragraph by summarize the text in compliance with their proficiency level. ➢ Their L2 level is low; therefore, the teacher explains the topic in detail. ➢ The students ask questions if they have difficulty in understanding the text. ➢ The teacher discusses the main idea and the details of the text with the students to check their understanding.
10 min.	**Break for 10 minutes**
30 min.	***Post Activity*** ➢ The teacher introduces the production questions prepared according to focus on form instruction. ➢ The students answer the questions that are designed as output practice to check their understanding of the text. ➢ The output activities include fill-in-the-blank activities and sentence completion practice. ➢ They students answer the questions which require to use adverbial conjunctions related to the text. ➢ The target forms are unobtrusive in the text and production activities. ➢ The teacher does not explicit instruction on the target forms. ➢ If the students ask questions including the target forms, the teacher implicitly explains it without moving away from the meaning.
10 min.	***Wrap-up*** ➢ The teacher directs questions to the students about the reading text to check for understanding such as: "How do girls and boys differ in their play groups?" "How do boys usually gain status at school?"

	"Why do women and men sometimes have communication problems?" "Who wants to summarize the differences between men and women?"
5 min.	***Questions and Comments*** ➢ The teacher asks the students if there are any questions related to the topic of the day. ➢ The teacher try to reveal if the students have had difficulty in comprehending the text and carrying out the activities.

APPENDIX 17

SAMPLE LESSON PLAN FOR INPUT + OUTPUT GROUP

Lesson Plan (Input + Output Group)

School : Balıkesir University

Level and Class : A1 / English as a compulsory course given in the first year of university education.

Subject : Adverbial Conjuctions

Materials and Aids : A reading text called "Trance" from the book "More to Read I" (Cezairlioğlu Türkan and Türkan, 2006: 241). Input activities and output activities via focus on form instruction.

Class Profile : 9 male and 25 female students
Mean age is 18.91

Expected Outcomes : The learners are expected to

- ✓ understand the text and talk about the topic of the reading text
- ✓ notice highlighted adverbial conjunctions in the text
- ✓ recognize the target forms and understand their meanings
- ✓ understand the form and function relationship of the target forms
- ✓ produce the target forms that are salient in the text and activities

Time	**Procedures**
15 min.	***Warm- Up*** ➢ The teacher asks some questions about the reading topic such as: "What do you know about trance or hypnosis?"; "In what conditions can hyponis be used?" "Do you think you can be put into trance easily?" "Have you ever been hypnotized? Did you remember anything about it?" ➢ The teacher elicits the answers and introduces the topic of the day.
30 min.	***Main Activity*** ➢ The teacher gives directions.

	➢ The students read the text first. ➢ The teacher reviews every paragraph and gives brief explanations in line with their proficiency level. ➢ The students ask questions about the text if they have any. ➢ The teacher ensures that the students get the main idea and understand the details before moving on the activities.
10 min.	**Break for 10 minutes**
30 min.	***Post Activity*** ➢ The teacher introduces both input and output activities. They are the same in lenght with the other groups. ➢ The students do some input activities such as multiple choice, true / false, and matching in the first half of the post activity. ➢ The students do some output activities such as fill-in-the-blanks and sentence completion in the second half of the post activity. ➢ The students need to understand the adverbial conjunctions in questions to be able to complete the input and output activities. ➢ The target forms are salient and obtrusive in all activities as they are in the text. ➢ The teacher does not provide any explicit instructions or Turkish translations of the target forms. ➢ The teacher gives implicit explanations if necessary without deviating from meaning.
10 min.	***Wrap-up*** ➢ The teacher asks questions to the students to review the topic of the day such as: "What kinds of trance are there?" "What kind of people are hard to put into trance?" "Is 'trance' the same thing with 'sleep'?" "Can the subject move during the trance?"

5 min.	"Is there anyone who can make a list of people who can get into trance easily?" ***Questions and Comments*** ➢ The teacher asks for any questions regarding the topic of the day. ➢ The teacher asks the students if there is anything that they do not understand. ➢ The teachers asks the students if they have had any problems in carrying out the activities.

APPENDIX 18

SAMPLE LESSON PLAN FOR CONTROL GROUP

Lesson Plan (Control Group)

School : Balıkesir University

Level and Class : A1 / English as a compulsory course given in the first year of university education.

Subject : Adverbial Conjuctions

Materials and Aids : A reading text called "Brain Circuits" from the book "More to Read I" (Cezairlioğlu Türkan and Türkan, 2006: 263). No input and output activities but only comprehension questions.

Class Profile : 9 male and 25 female students
Mean age is 19.29

Expected Outcomes : The learners are expected to

- ✓ understand the text and talk about the topic of the reading text
- ✓ recognize the target forms and understand their meanings
- ✓ understand the form and function relationship of the target forms
- ✓ produce the adverbial conjunctions that are unobtrusive in the text

Time	**Procedures**
15 min.	***Warm- Up*** ➢ The teacher asks some questions about the reading topic such as: "Do you think every information is stored in the same place in our brains?" "Is it hard to learn a new thing or remember a thing?" "Do you think whose brain is more active: a baby's or an adult's?" "Do you know what circuit is? What do you think the brain circuit is?" ➢ The teacher elicits the answers and introduces the topic of the day.
30 min.	***Main Activity*** ➢ The teachers give directions.

	➢ The students read the text first. ➢ The teacher talks about each paragraph and provides simplified explanations appropriate to their proficiency level. ➢ The teacher elicits questions about any ambiguities. ➢ The teacher makes sure that the students have a general idea on the topic and catch the details in the text. ➢ The target forms are not salient in the text.
10 min.	**Break for 10 minutes**
30 min.	***Post Activity*** ➢ The teacher introduces comprehension questions. ➢ The comprehension questions are to check for understanding of the reading text. ➢ The students are not exposed to any input or output activities regarding adverbial conjunctions but comprehension questions only.
10 min.	***Wrap-up*** ➢ The teacher reviews the topic of the day together with the students by asking such questions: "What does brain use for energy?" "Which one uses less energy, learning or remembering?" "What is pruning?" "What did they ask from the participants in the study?" "Who wants to give a brief summary of the text/study?"
5 min.	***Questions and Comments*** ➢ The teacher asks the students if there are any questions about the text. ➢ The students are encouraged to express any questions and problems related to the comprehension questions.

APPENDIX 19

THE COMPLETE FINDINGS OF POST HOC SCHEFFE TEST FOR COMPREHENSION PRETEST, POSTTEST, AND DELAYED POSTTEST

			Mean Dif.	Std. Error	*p*	Lower Bound	Upper Bound
PreComp	Input	Output	-1.03	0.94	0.755	-3.70	1.64
		Input + output	-0.03	0.94	1.000	-2.70	2.64
		Control	0.26	0.94	0.994	-2.41	2.94
	Output	Input	1.03	0.94	0.755	-1.64	3.70
		Input + output	1.00	0.94	0.771	-1.67	3.67
		Control	1.29	0.94	0.598	-1.38	3.96
	Input + output	Input	0.03	0.94	1.000	-2.64	2.70
		Output	-1.00	0.94	0.771	-3.67	1.67
		Control	0.29	0.94	0.992	-2.38	2.96
	Control	Input	-0.26	0.94	0.994	-2.94	2.41
		Output	-1.29	0.94	0.598	-3.96	1.38
		Input + output	-0.29	0.94	0.992	-2.96	2.38
PostComp	Input	Output	-0.68	0.93	0.913	-3.32	1.97
		Input + output	0.68	0.93	0.913	-1.97	3.32
		Control	2.44	0.93	0.082	-0.20	5.09
	Output	Input	0.68	0.93	0.913	-1.97	3.32
		Input + output	1.35	0.93	0.554	-1.29	4.00
		Control	3.12	0.93	0.013	0.47	5.76

	Input + output	Input	-0.68	0.93	0.913	-3.32	1.97
		Output	-1.35	0.93	0.554	-4.00	1.29
		Control	1.76	0.93	0.316	-0.88	4.41
	Control	Input	-2.44	0.93	0.082	-5.09	0.20
		Output	-3.12	0.93	0.013	-5.76	-0.47
		Input + output	-1.76	0.93	0.316	-4.41	0.88
DComp	Input	Output	-1.03	1.05	0.813	-4.02	1.96
		Input + output	0.62	1.05	0.952	-2.37	3.60
		Control	1.59	1.05	0.521	-1.40	4.57
	Output	Input	1.03	1.05	0.813	-1.96	4.02
		Input + output	1.65	1.05	0.489	-1.34	4.63
		Control	2.62	1.05	0.110	-0.37	5.60
	Input + output	Input	-0.62	1.05	0.952	-3.60	2.37
		Output	-1.65	1.05	0.489	-4.63	1.34
		Control	0.97	1.05	0.838	-2.02	3.96
	Control	Input	-1.59	1.05	0.521	-4.57	1.40
		Output	-2.62	1.05	0.110	-5.60	0.37
		Input + output	-0.97	1.05	0.838	-3.96	2.02

APPENDIX 20

THE COMPLETE FINDINGS OF POST HOC SCHEFFE TEST FOR PRODUCTION PRETEST, POSTTEST, AND DELAYED POSTTEST

			Mean Dif.	Std. Error	*p*	Lower Bound	Upper Bound
PrePro	Input	Output	-0.85	1.22	0.922	-4.32	2.62
		Input + output	-1.12	1.22	0.842	-4.59	2.35
		Control	-1.47	1.22	0.696	-4.94	2.00
	Output	Input	0.85	1.22	0.922	-2.62	4.32
		Input + output	-0.26	1.22	0.997	-3.73	3.20
		Control	-0.62	1.22	0.968	-4.09	2.85
	Input + output	Input	1.12	1.22	0.842	-2.35	4.59
		Output	0.26	1.22	0.997	-3.20	3.73
		Control	-0.35	1.22	0.994	-3.82	3.12
	Control	Input	1.47	1.22	0.696	-2.00	4.94
		Output	0.62	1.22	0.968	-2.85	4.09
		Input + output	0.35	1.22	0.994	-3.12	3.82
PostPro	Input	Output	-1.18	1.43	0.878	-5.22	2.87
		Input + output	0.00	1.43	1.000	-4.04	4.04
		Control	2.44	1.43	0.407	-1.60	6.48
	Output	Input	1.18	1.43	0.878	-2.87	5.22
		Input + output	1.18	1.43	0.878	-2.87	5.22
		Control	3.62	1.43	0.098	-0.43	7.66

	Input + output	Input	0.00	1.43	1.000	-4.04	4.04
		Output	-1.18	1.43	0.878	-5.22	2.87
		Control	2.44	1.43	0.407	-1.60	6.48
	Control	Input	-2.44	1.43	0.407	-6.48	1.60
		Output	-3.62	1.43	0.098	-7.66	0.43
		Input + output	-2.44	1.43	0.407	-6.48	1.60
DPro	Input	Output	-1.26	1.54	0.879	-5.63	3.10
		Input + output	-0.15	1.54	1.000	-4.51	4.21
		Control	1.09	1.54	0.919	-3.27	5.45
	Output	Input	1.26	1.54	0.879	-3.10	5.63
		Input + output	1.12	1.54	0.913	-3.24	5.48
		Control	2.35	1.54	0.508	-2.01	6.71
	Input + output	Input	0.15	1.54	1.000	-4.21	4.51
		Output	-1.12	1.54	0.913	-5.48	3.24
		Control	1.24	1.54	0.886	-3.13	5.60
	Control	Input	-1.09	1.54	0.919	-5.45	3.27
		Output	-2.35	1.54	0.508	-6.71	2.01
		Input + output	-1.24	1.54	0.886	-5.60	3.13