ACQUISITION OF ENGLISH PSYCH VERBS BY TURKISH-SPEAKING UNDERGRADUATE EFL LEARNERS

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Seray Tanyer

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ACQUISITION OF ENGLISH PSYCH VERBS BY TURKISH-SPEAKING UNDERGRADUATE EFL LEARNERS

Seray TANYER

Ph.D DISSERTATION

English Language Teaching Program
Department of Foreign Language Education
Supervisor: Prof. Dr. İlknur KEÇİK

Eskişehir
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	Unvanı-Adı Soyadı	İmza
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Üye	: Prof.Dr. F.Hülya ÖZCAN ÖNDER	. . . . .
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Üye	: Prof.Dr. Özgür AYDIN	. . . . .
Üye	: Doç.Dr. Bülent TOĞRAM	. . . . .

Prof.Dr. Bahadır ERİŞTİ
Anadolu Üniversitesi
Eğitim Bilimleri Enstitü Müdürü

ÖZET

İNGİLİZCE RUH-DURUM EYLEMLERİNİN İNGİLİZCEYİ YABANCI DİL OLARAK ÖĞRENEN TÜRK ÜNİVERSİTE ÖĞRENCİLERİ TARAFINDAN EDİNİMİ

Seray TANYER

Yabancı Diller Eğitimi Anabilim Dalı
İngilizce Eğitimi Doktora Programı

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Danışman: Prof. Dr. İlknur KEÇİK

Bu çalışmanın temel amacı, İngilizceyi yabancı dil olarak öğrenen Türk öğrencilerinin ruh-durum eylem edinimlerini incelemektir. Önceki çalışmalardan elde edilen sonuçlar, öğrencilerin Deneyimleyen-Özne (SE) ruh-durum eylemleri ile (örn., *korkmak, beğenmek, nefret etmek*) az zorluk çektikleri, buna karşın sorunlara neden olanın Deneyimleyen–Nesne (OE; örn., *korkutmak, memnun etmek,* kızdırmak) ruh-durum eylemleri olduğu konusunda tutarlıdır. Çalışma, ilk olarak, yabancı dil olarak İngilizce öğrenen Türk lisans öğrencilerinin ruh-durum eylemlerini anlama ve üretme düzeyindeki edinimlerini eylem türü, canlılık ve dil düzeyi gibi farklı değişkenler açısından incelemiştir. İkinci olarak, İngilizce öğrenen Türk öğrencilerin ruh-durum eylemlerine dair üretim tercihlerini araştırmıştır. Bu amaçlar için, Hızlı Yerleştirme Testi, Yazılı Üretim Testi, Kabul Edilebilirlik Doğrulama Testi ve Görsel Betimleme Testi olmak üzere dört farklı araç kullanılmıştır. Anlama ve üretim düzeyinde toplanan veriler, bir dizi tanımlayıcı istatistik ve parametrik testler (t-testi, ANOVA, MANOVA) aracılığıyla nicel ve nitel olarak analiz edilmiştir. Sonuçlar, mevcut çalışmanın üç değişkeninin (eylem türü, canlılık ve dil düzeyi) İngilizce ruh-durum eylem edinim süreci üzerinde göreceli bir etkiye sahip olduğunu ve bu etkilerin farklı test türlerinde olduğu kadar anlama ve üretim düzeyinde de farklı şekilde ortaya çıktığını göstermiştir. Araştırmanın sonuçları ışığında ilgili tartışmalar ve önerilerde bulunulmuştur.

Anahtar Sözcükler: İngilizce ruh-durum eylemleri, DÖ ruh-durum eylemleri, DN ruh durum eylemleri, Dil edinimi, Yabancı dil olarak İngilizce öğrenimi

ABSTRACT

ACQUISITION OF ENGLISH PSYCH VERBS BY TURKISH-SPEAKING UNDERGRADUATE EFL LEARNERS

Seray TANYER

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Anadolu University, Graduate School of Education, February 2022

Supervisor: Prof. Dr. İlknur KEÇİK

The major purpose of this study was to examine Turkish L2 learners' acquisition of psych(ological) verbs. The earlier studies indicated that learners had little difficulty with SE psych verbs (e.g., *like*, *hate*, *admire*), whereas OE psych verbs (e.g., *frighte*n, *please*, *anger*) caused challenges for learners. This study aimed to test whether the same tendency would be observed among Turkish learners of English. It firstly examined the L2 acquisition of psych verbs in comprehension and production level by Turkish-speaking undergraduates learning English as a foreign language in terms of different variables such as verb type, animacy and language level. Secondly, it investigated the preferences of Turkish-speaking EFL learners in production of English psych-verbs. For these purposes, four different instruments were used that were: Quick Placement Test, Written Production Task, Acceptability Judgement Task and Picture Identification Task. The data collected in comprehension and production level were analyzed quantitatively and qualitatively through a set of descriptive statistics and parametric tests (t-test, ANOVA, MANOVA). The results indicated that three variables (i.e., verb type, animacy and language level) of the current study had a relative effect on the acquisition process of English psych verbs, and those effects emerged differently in comprehension and production level as well as in different task types. The related discussions and suggestions had been proposed under the light of the results of the study.

Keywords: English psych verbs, OE psych verbs, SE psych verbs, Language acquisition, Learning English as EFL

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ETİK İLKE VE KURALLARA UYGUNLUK BEYANNAMESİ

Bu tezin bana ait, özgün bir çalışma olduğunu; çalışmamın hazırlık, veri toplama, analiz ve bilgilerin sunumu olmak üzere tüm aşamalarında bilimsel etik ilke ve kurallara uygun davrandığımı; bu çalışma kapsamında elde edilen tüm veri ve bilgiler için kaynak gösterdiğimi ve bu kaynaklara kaynakçada yer verdiğimi; bu çalışmanın Anadolu Üniversitesi tarafından kullanılan "bilimsel intihal tespit programı"yla tarandığını ve hiçbir şekilde "intihal içermediğini" beyan ederim. Herhangi bir zamanda, çalışmamla ilgili yaptığım bu beyana aykırı bir durumun saptanması durumunda, ortaya çıkacak tüm ahlaki ve hukuki sonuçları kabul ettiğimi bildiririm.

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LIST OF ABBREVIATIONS

ABL	: Ablative
AJT	: Acceptability Judgement Task
AG	: Agentive
AO	: Animate Object
ANOVA	: Analysis of Variance
AS	: Animate Subject
BIS	: Background Information Survey
BNC	: British National Corpus
CEC	: Cambridge English Corpus
CLC	: Cambridge Learner Corpus
COCA	: Corpus of Contemporary American English
EFL	: English as a Foreign Language
ELT	: English Language Teaching
EPT	: Elicited Production Task
EO	: Experiencer as Object
ES	: Experiencer as Subject
EVP	: English Vocabulary Profile
FA/FT	: Full Access/Full Transfer
FA	: Full Access
FDH	: Fundamental Difference Hypothesis
GJT	: Grammaticality Judgement Task
InAO	: Inanimate Object
InAS	: Inanimate Subject
ITs	: Interpretation Tasks
L1	: First Language
L2	: Second Language
MANOVA	: Multiple Analysis of Variance
NP	: Noun Phrase
OE	: Object Experiencer
QPT	: Quick Placement Test
PIT	: Picture Identification Task

PJT	: Picture Judgement Task
SE	: Subject Experiencer
SCT	: Sentence Completion Task
SLA	: Second Language Acquisition
That – CL	: That Clause
To + INF	: To Infinitive
TL	: Target Language
TS	: Theme as Subject
T/SM	: Target/Subject Matter
UCLES	: University of Cambridge Local Examinations Syndicate
UG	: Universal Grammar
UTAH	: Uniformity of Theta Assignment Hypothesis
VST	: Vocabulary Size Test
VTT	: Vocabulary Translation Task
WPT	: Written Production Task

1. INTRODUCTION

1.1. Background to the Study

The main assignment of lexical research in second language acquisition, according to Gass & Selinker (2001, p. 374), is "to discover what second language learners know about the lexicon of the second language, how they learn it, and why this particular path of development is followed". Gass (1999) further reminds us that second language vocabulary learning is a complicated process. In addition to learning the pairings of sound-meaning, it also requires learning how lexical information is lexically and morphologically expressed and syntactically constrained. In particular, compared with the verb learning in first language (L1) acquisition, verb learning is potentially quite different for adult second language (L2) acquisition. One of the major differences is that adult L2 learners have already established a mental lexicon of verbs in L1. It suggests that L2 learners are in the need of (re)acquiring how lexico-syntactic operations are exhibited in various languages (L1 vs. L2). Within this perspective, a number of questions can be arisen regarding the acquisition of a verb in a target language: What does acquisition represent? To what extent do L2 learners learn such lexical properties as meaning and (syntactic) form? What do the learners experience during this learning process? Do they acquire verbs individually or as a group of the same semantic type? Does L1 play any role in the acquisition of a verb in L2? Is it possible to except any "positive transfer" promoting the learning process and/or "negative transfer" hindering it?. The current work will address these questions in terms of the acquisition of psych verbs within the dimensions of linguistic theories and theories on second language acquisition.

Since the 1990s, there has been growing interest in investigating the lexicon from the viewpoint of the syntax-semantics interface with the developments in lexical theories (e.g., Levin, 1993; for a review, see Levin and Rappaport-Hovav, 2005) which claim that the verb classes that are semantically close and coherent engaged in similar argument structures and the alternations of argument structures. The acquisition of argument structure alternations has drawn much attention and various grammatical items have been investigated (see White 2003 for a summary). These includes dative alternation (e.g,, White 1987, 1991; Bley-Vroman and Yoshinaga, 1992; Sawyer, 1996), locative verbs (e.g., Juffs, 1996a; Inagaki, 1997), unaccusative and unergative verbs (e.g., Zobl, 1989; Yip, 1995; Balcom, 1997; Hirakawa, 2000; Ju, 2000; Oshita, 2000, 2001; Shomura,

2002), the causative and inchoative alternation (e.g., Montrul, 1999; 2000; 2001a; Toth, 2000) and psychological verbs (hereafter psych verbs, Chen, 1996; Juffs, 1996a, 1996b; White et al., 1998, 1999; Montrul, 2001c). These studies dealt with different verb types, but they all investigated how the information encoded in lexical entries (e.g., semantic roles, semantic constraints) was realized in syntax. The current thesis will likewise specifically deal with the L2 acquisition of the interface between semantics and the syntax, in particular, the acquisition of the argument structure of psych(ological) verbs by Turkish-speaking undergraduate learners of English as a foreign language (EFL).

Psych verbs basically "describe the bringing about of a change in psychological or emotional state" (Levin, 1993, p. 189). These verbs, also named as *experiencer verbs* (Cupples, 2002; Pesetsky, 1995; Talmy, 1985), *mental verbs* (Croft, 1993) and *emotive verbs* (Rozwadoska, 1988), are mostly thought to carry two semantic roles that are *Experiencer* and *Theme*. According to Levin (1993), psych verbs are divided into two main classes with their two other subcategories (1.1):

(1.1) Psych verbs (Levin, 1993, pp., 188-193)

a. Transitive verbs

a.1. The experiencer is object (ex. "amuse)

Ex. The clown amused the children.

a.2. The experiencer is subject (ex. "admire")

Ex. The tourists admired the paintings.

b. Intransitive verbs

b.1. The experiencer is expressed as the subject (ex. "marvel")

Ex. The tourists marveled at the beauty of the town.

b.2. The experiencer is the object of the preposition. (ex. "appeal")

Ex. This painting appeals to Mary.

The SLA literature (e.g., Rutherford, 1995) basically remarks that without a theory of what something is, it is hard to reach a theory of how something is acquired. For this reason, the following lines will review the major components and baselines of some linguistic theories with their essential principles and the place of these theories in language acquisition. Firstly, the fundamental notions and functions of *Theta Theory* which is interested in the semantic relationship between a verb and its arguments will be discussed. In the core of *Theta Theory*, *Theta Criterion* (Chomsky, 1981) exists, and this criterion indicates that each argument must deliver one and only one theta role. Therefore,

each theta role must be allocated to one argument. Initially suggested by Gruber (1965) and then improved by Jackendoff (1972), the thematic roles such as *Agent, Theme* etc. indicate the thematic relations noun phrases (NP) have in consideration of a given verb.

(1.2) a. John kicks the ball
b. The ball is kicked by John
c. *John kicks
d. The earthquake killed many people
e. *Killed many people (Chen, 1996, p. 7)

As the examples (1.2) above imply, the sentences following *Theta Criterion* become grammatical while the ones contravening this criterion become ungrammatical. In (1.2a), *kick* as a verb designates two theta roles: *Agent* was designated to *John* as the subject while *Theme* was designated to *ball* as the object, therefore, the *Theta Criterion* was fulfilled. (1.2e) is, to the contrary, ungrammatical due to the deficiency of an argument carrying the theta role, *Agent*.

(1.3) a. Jack likes basketball.
b. Megan saw the movie.
c. *Basketball likes Jack.
d. *The movie saw Megan.

The sentences (1.2) above also indicate that *Agent* (i.e., John vs. the earthquake) and *Theme* (i.e., the ball vs. people) can be either animate and/or inanimate, however a theta role like *Experiencer* cannot be assigned to either animate or inanimate noun phrases (NP). For instance, the verbs *like* in (1.3a) and *see* in (1.3b) with *Experiencer*s – Jack and Megan - demand animate NPs because the individuals experience an event. For this reason, the sentences in (1.3c) and (1.3d) are ungrammatical since those inanimate subjects cannot experience the actions of "liking" and "seeing".

Until now, we have seen that a certain comparability between theta role assigner (verb) and theta role assignee (arguments, e.g., subject, object) as well as an acceptable animacy precondition for specific theta roles certify the output of grammatical sentences. However, this is not sufficient because there is one another issue to discuss that is mapping of a theta role onto a structural position (i.e., subcategorization frame - theta

grid, Stowell, 1981; Williams, 1981). The lexical entry for a verb (or, predicate) establishes the number of NPs it obtains, and the type of theta roles these NPs bear refers to the information which is recognized as a predicate's subcategorization frame (see the subcategorization of *kick* in (1.4) below).

(1.4) kick
[NP 1, NP 2]
(*Agent, Theme*)

As shown in (1.4), *kick* requires two different NPs: the one carrying the theta role, *Agent*, and the one carrying the theta role, *Theme*. The concept of subcategorization is concerned with argument structure, which implies that subject is the position which generally carries a higher argument while object is the position which carries a lower argument. Therefore, *Agent* is usually associated with subject, and *Theme* with object. Here, the question is: Does any principle set up any rule for the relationship between thematic and syntactic information? In other words, is the linking between thematic roles and syntactic positions arbitrary or systematical?

Within the Universal Grammar (UG) perspective, a set of principles answer these questions. One of these principles is the *Thematic Hierarchy*, and this hierarchy classifies thematic roles in terms of their prominence. Therefore, it indicates that more prominent theta roles are positioned higher in the *Thematic Hierarchy* while less prominent theta roles are positioned lower in the hierarchy. The literature forwards various versions of the *Thematic Hierarchy* (e.g., Jackendoff, 1990; Larson, 1988; Pesetsky, 1995). Although some debates exist (for example, related to the position of *Theme* and *Location* (Larson, 1988, p. 382)), all the hierarchies suppose that *Agent* carries the highest position. In (1.5), for example, the hierarchy suggested by Jackendoff (1990) has been figured in which *Agent* places higher than *Experiencer* and *Theme*:

(1.5) Thematic Hierarchy (Jackendoff, 1990)
(Agent(Experiencer(Goal/Source/Location(Theme))))

The fact that theta roles hold different degrees of prominence, and the more prominent role is located in the higher structural position syntactically emphasizes that

thematic roles are systematically linked to syntactic positions rather than arbitrarily. The Uniformity of Theta Assignment Hypothesis (UTAH; Baker (1988, p. 46)) conveys this parallelism between thematic and syntactic prominence (1.6):

(1.6) *Uniformity of Theta Assignment Hypothesis* (UTAH)
Identical thematic relationships between items are represented by identical structural relationships between those items at the level of D-structure.

According to UTAH, similar semantic elements must be achieved by similar thematic links at D-structure. In order to get a sense of what the UTAH is about, let us look at two samples in order in (1.7):

(1.7) a. Mary fears the dog
b. The dog frightens Mary

In (1.7), the *Experiencer* Mary is related with either the subject (1.7a) or the object (1.7b) albeit the two lines reflect a similar meaning. Mary is base-generated at a similar structural position in D-structure for both *fear* and *frighten* in Belletti and Rizzi's (1988) classical account of psych verbs. However, in the instance of *frighten*, the need for Case causes the *Theme* (i.e., the dog) to shift to the subject position, resulting in an altered word order in the structure (1.7b). At the level of D-structure, where semantics and syntax are linked, the *Thematic Hierarchy* and the UTAH come into play. The appropriate linking patterns between thematic arguments and syntactic locations may be explained using these principles.

What is supposed in the current study is that the interlanguage linking of psych arguments to syntactic position is not random. According to UTAH, *Themes* are conveyed as the verb's internal argument at D-structure. According to the Thematic Hierarchy, *Experiencers* project to a higher syntactic position than *Themes*. In OE verbs, the *Theme* is projected as the internal argument of the verb, but in S-structure, it transfers to subject position.

What is mainly investigated in the current study is the nature of L2 learners' representation of psych verb arguments. We investigate whether the mapping of psych verbs to syntactic places in L2 learners' grammars is arbitrary or non-arbitrary, assuming a logical mapping of theta roles to syntactic places in native speaker grammars.

(1.8) a. Jack blames the article.
b. The article annoys Jack.

As observed by Grimshaw (1990) and Pesetsky (1995), psych verbs in English (and also crosslinguistically) present some unusual properties one of which is their seemingly arbitrary semantics-syntax correspondence. Sometimes the *Experiencer* takes the subject position (1.8a), sometimes the object position (1.8b). The irregular mapping between thematic arguments and syntactic positions may constitute considerable learning problems for L2 learners of English, because unlike agentive (AG) verbs which typically associate the *Agent* with the subject and the *Theme* with the object, there seems to be no regularity to follow in linking semantics to syntax with these psych verbs. It is in here that the major aim of this work lie: to find whether psych verbs are problematic for Turkish L2 learners of English, and if yes, to what extent?

1.2. Statement of the Problem

The argument structure of a lexical item had generally been recognized as part of its entry (Sag & Szabolci, 1992). Research had demonstrated that the ability to understand the argument structure of verbs was crucial in explaining a native speaker's competence about language (Grimshaw, 1990; Jackendoff, 1990; Levin & Hovav, 1995). Since verbs demand the possible syntactic structures in which they occur, the acquisition of them also interplay with that of syntax and semantics, which means that the acquisition of argument structure implies the acquisition of all the relevant properties of a predicate. While learning a verb, L2 learners are supposed to acquire such information as (Sato 2005, 1):

- How many arguments does the verb have?
- How are the arguments realized syntactically? (NP or PP)
- What kind of semantic role is assigned to the argument? (Agent, Theme, Goal tec.)
- How is the argument linked onto a grammatical function? (Subject, Object etc.)

When a verb like *hit* (1.9) is concerned, for example, it is clear that the sentence including *hit* has two arguments (i.e., *Tom* and *the ball*) that are syntactically realized as NPs. The semantic roles assigned to the arguments are *Agent* and *Theme* which are mapped onto subject and object positions respectively.

(1.9) Tom hit the ball.

Nevertheless, the linking rule of semantic roles to syntactic positions is not always so simple. The pair of sentences in (1.10) indicates that it is possible for the same semantic role to be mapped onto different syntactic positions. As seen in the example, the *Experiencer* Tom is linked to the subject position in (1.10a) but to the object position in (1.10b):

(1.10) a. Tom feared the earthquake.
Experiencer *Theme*
b. The earthquake frightened Tom.
Theme *Experiencer*

As it is indicated above, psych predicates in English (and also crosslinguistically) present some unusual properties, one of which is their seemingly arbitrary semantics-syntax correspondence. Sometimes the *Experiencer* takes the subject position, as in (1.10a), sometimes the object position, as in (1.10b). The irregular mapping between thematic arguments and syntactic positions may constitute considerable learning problems for L2 learners of English, because there seems to be no regularity to follow in linking semantics to syntax with these psych predicates. Therefore, these verbs are potential points at issue for the theory of one-to-one mapping of semantic roles to grammatical functions as indicated by SLA studies (e.g., Sato, 2005; Montrul, 2001c; White et al. 1998, 1999; Chen, 1996; Juffs, 1996a, 1996b).

As the examples in the lines above (1.10) illustrate, the linking of arguments onto syntactic locations seems to be arbitrary and poses problems for a thematic hierarchy as in (1.11). That is, more prominent theta roles are supposed to be positioned higher in the thematic hierarchy while less prominent theta roles are positioned lower in the hierarchy.

(1.11) (Agent (Experiencer (Goal/Source/Location (Theme))))
(Jackendoff, 1990)

An argument with *Agent* is tied to a higher rank than an argument with *Experiencer*, according to the *Thematic Hierarchy* proposed by Jackendoff (1990) in (1.11). Those two

are in sequence higher than the rest of the arguments with *Goal, Source, Location* and *Theme*. As a result, the example sentence in (1.12) follows the thematic hierarchy because *Tom* as an *Agent* is attached to the syntactic position of subject while *the ball* as a *Theme* is attached to the syntactic position of object.

(1.12) Tom hit the ball.

As for the first category of psych verbs in English that is SE psych verbs, the thematic role, *Experiencer*, is perpetually located higher than the thematic role, *Theme*, which means that this verb class complies with the hierarchy. Therefore, this psych verb class exhibits no linking problems with the thematic hierarchy. However, the second category that is OE psych verbs infringes the hierarchy because they position *Theme* as subject, and therefore positions *Experiencer* lower than *Theme* (see 1.10b). As a result, it seems that psych verbs, more precisely OE type psych verbs, carries a particular and distinctive essence in terms of linking.

Languages also vary in the marking of argument structure alternation morphologically. For instance, English does not overtly mark argument structure morphologically (see (1.13b) and (1.14b)) while Turkish marks it with the causative morphology –(u)t (and some others) as in (1.13a). As a result, the difference in morphology between L1 and L2 is assumed to generate learning difficulties for Turkish L2 learners of English. In other words, along with misplacement of thematic roles to syntactic positions with English psych verbs, Turkish learners can experience problems while noticing that OE psych verbs carry no causative morpheme in English (e.g., Chen, 1996; White et al., 1998, Montrul, 2001c with Turkish L2 learners of English).

(1.13) a. Tom deprem-den kork-tu.
Tom NOM deprem - ABL fear-PAST.
b. Tom feared the earthquake.

(1.14) a. Deprem Tom'u kork-ut-tu.
Deprem - NOM Tom - ACC frighten-CAUSE-PAST.
b. The earthquake frightened Tom.

Animacy has also been identified as an essential extralinguistic aspect in the acquisition of psych verbs (e.g., Zhang (2007) - *Semantic Salience Hierarchy Model)*, and for the psych verbs in English language (Levin & Grafmiller, 2013). Animate *Theme* can produce both comprehension barriers and production hindrance. Given the *Thematic Hierarchy* of Jackendoff (1990), since the pervasive English order is the *Experiencer* in the subject position with SE verbs, the *Theme* in the subject position with OE verbs can cause confusion among learners in terms of animacy, as well, because the *Theme* could be either animate or inanimate. With an animate *Theme*, the processing load is expected to be much heavier than with inanimate *Theme*, since zero CAUS is more salient with inanimate *Theme* than with animate *Theme* in that with the former, only the stative reading is possible, while it is possible to attend two readings with the latter, agentive and stative" (Zhang, 2007, p. 131). Consider the example in (1.15):

(1.15) a. John's recent behavior worries his mother.
b. John worries his mother.
c. John's mother worries about John.

Since the mother is the sole animate human being in the sentence, it should not be difficult to deduce that she is the *Experiencer* or is concerned about something in (1.15a). However, because both arguments are animate, it may be difficult for L2 learners to determine who the *Experiencer* and the Target of emotion is in (1.15b). (1.15c) is probably the easiest because the existence of "about" makes worry intransitive. An experimental prediction is that when the *Causer* is inanimate, the zero CAUS in OE verbs would be easier to discern than when it is animate. To put it another way, animacy might be a useful hint for detecting zero CAUS in OE verbs, which is clearly connected to the Semantic Salience Hierarchy with Animacy (Zhang, 2007). Therefore, it has been shown that the syntactic structure of psych verbs relies heavily on their lexical properties in English.

The acquisition of argument structure of psych verbs can shed light onto the learnability paradox. Taking this verb class for example, the arbitrary link between semantics and syntax shown in (1.8) above constitutes a situation in which the logical problem of language acquisition. The logical problem of language acquisition, known as learnability problem, that indicates an incompatibility between the language input and the

grammar acquired. On the one hand, the properties which are subtle and sophisticated seem to be underdetermined by the linguistic input, on the other hand, learners eventually come to know the syntax-semantics mapping of these verbs. The psych predicates could be used to show the logical problem of language acquisition.

(1.16) a. Jack blames the article.
b. *The article blames Jack.
c. Jack blames Megan.
d. Megan blames Jack.
e. The article annoys Jack.
f. *Jack annoys the article.
g. Jack annoys Megan.
h. Megan annoys Jack.

For the verb blame it is the *Experiencer* Jack and Megan that take a subject position, as seen in (1.16a), (1.16c) and (1.16d). For the verb annoy, the *Experiencer John* or *Mary* can only be the object, as in (1.16e), (1.16g) and (1.16h). This shows that in the case of these two types of verbs, the roles of subjects and objects are constrained. Furthermore, with the pair verbs *blame* and *annoy*, a reverse occurrence (i.e., flip phenomena) is observed. As shown in the pairs (1.16a – 1.16e) and (1.16c – 1.16h), the same argument *Jack*, as well as the argument *article*, can be associated to either subject or object. When it comes to theta roles assigned to subjects and objects, there appears to be no consistent pattern in the previous sentences. Small children are unlikely to be taught the details concerning them, and ungrammatical statements such as (1.16b) and (1.16f) do not appear in the input. Because native speakers have comparable judgements about these sentences, we assume that children can learn these features without assistance from the outside world, relying instead on the UG.

However, with the L2 learners this may not be the case. Since a logical problem of second language acquisition can exit in the mapping of thematic roles of the psych verb arguments onto structural positions, it is the aim of this study to find out whether-Turkish L2 learners can step in the principles such as the *Thematic Hierarchy* (Jackendoff, 1990) while acquiring the mapping of thematic roles of psych verb arguments onto structural positions. Furthermore, psych verbs had also been demonstrated to suggest a substantial learnability threat since, different from the circumstances with quite other verbs (e.g., *hit*

in (1.12)), the mapping of thematic roles to syntactic positions is not crystal-clear. At times, context give clues that *Experiencer* is Subject (e.g., SE psych verbs: *fear*), but at the other times, language learners confront the verbs with *Experiencer* in object position (e.g., OE verbs: *frighten*). Therefore, a particular concern here is that how possible overgeneralization errors can be overcome in the poverty of negative evidence which indicates the condition when the clue from the context is inadequate, and language "learners do not usually encounter verbs in all their possible syntactic frames in the input, and they have to arrive at the appropriate representation of verbs based on evidence from a few exemplars" (Juffs, 1996a, p. 65). To restate, the L2 acquisition of the lexicon and principles of mapping from the lexicon to syntax had been claimed to face a similar logical problem to the one encountered in L1, namely the poverty-of-stimulus arguments and overgeneralization issue (Zhang, 2007). Thus, this arises the question: In the poverty of negative evidence, will ESL/EFL learners possibly acquire the awareness about what decides the mapping of *Experiencer* into object and/or subject position?

The learning challenge of the argument structure of psych verbs, as claimed above, is a topic of considerable theoretical significance and educational value. The problem is theoretically interesting and is profoundly related to the comprehension of SLA because this has been observed to be a prevailing challenge among L2 learners which was sustained by the mistakes of L2 learners of English (Sato, 2003, p. 126):

(1.17) *I delight watching the video.

(1.18) *We should not annoy death.

The "irregular" mapping between thematic arguments and syntactic positions of psych verbs poses learnability problems for both L1 (Bowerman, 1990) and virtually all ESL learners (Burt & Kiparsky, 1972; Burt, 1975; Burt, Dulay & Krashen, 1982; Celce-Murcia & Larsen-Freeman, 1999; Chang, 1987; Juffs, 1998; Lock, 1996; Sato, 2005; Turton, 1995). In the area of learning/teaching English as an L2, psych predicates have been identified as an aspect of English grammar that often yields global errors like the ones in (1.19 – 1.21) that native speakers can find annoying or even intolerable, for they affect the overall organization of information and seriously hinder communication (Burt, Dulay & Krashen, 1982):

(1.19) *I don't bother the cat. (Burt, Dulay and Krashen, 1982)
Intended: The cat doesn't bother me, or I don't bother about the cat.

(1.20) I have a sweet home. *You'll puzzle who else home is not sweet. (Ding, a Chinese learner of English) (Zhang, 2007)
Intended: You will be puzzled who else's home is not sweet.

(1.21) *Mum always told me: "The man/whoever satisfied what he has enjoys a happy life. (Zhong, a Chinese learner of English) (Zhang, 2007)
Intended: Mum always told me "The man/whoever is satisfied with what he has enjoys a happy life."

Also, as widely acknowledged in the related literature, the acquisition of L2 lexicon has previously attracted little research interest, but is receiving increasing attention throughout the last two decades (Chen, 1996; Dehghan & Jabbari, 2011; Juffs, 1996a; Hahn, 2011; Kang & Hou, 2013; Montrul 2001c; Sato, 2000; 2003, 2005; Zhang, 2007 among others), largely in the light of theory of lexical semantics which attempts to form foreseeable and principled relationship between semantics and syntax (Grimshaw, 1990, 1994; Jackendoff, 1990; Hale & Keyser, 1987; Levin, 1993; Levin & Rappaport Hovav, 1995; Pinker, 1989; Rappaport Hovav & Levin, 1998). The assumption underlying lexical semantics is that various aspects of a sentence's syntax are regulated by the meaning of the predicate in that sentence. The hypothesis is that the mapping between the lexical semantics of a predicate and the syntactic expression of its arguments is largely, if not fully, predictable. Testing this hypothesis has proven to be a particularly fruitful way of deepening our understanding of the lexical semantics-syntax interface (Levin & Rappaport Hovav, 1996) and its role in L2 acquisition. This work attempts to address the issues expressed above by examining the L2 acquisition of the argument structure of a special class of verb known as psych(ological) verbs by Turkish-speaking undergraduate EFL learners.

1.3. Purpose of the Study and Research Questions

The main purpose of this thesis is to examine Turkish L2 learners' acquisition of psych(ological) verbs. The results obtained from prior studies indicated that learners have little trouble with SE psych verbs (e.g., *like, hate, admire*), whereas OE (e.g., *frighten, please, anger*) psych verbs present challenges for learners. The goal of this study was to see whether the same tendency could be seen among Turkish EFL students. To examine

the L2 acquisition of the argument structure of psych verbs by Turkish-speaking undergraduates learning English as a foreign language in terms of different variables, the following research questions have been addressed:

1. What are accuracy levels of Turkish-speaking EFL learners at different language levels in comprehension of English psych-verbs?
    a. Is there a significant difference among achievement of comprehension task on different verb type (i.e., OE vs. SE verbs)?
    b. Is there a significant difference among achievement of comprehension tasks on animacy (animate vs. inanimate subjects/objects)?
2. What are preferences of Turkish-speaking EFL learners in production of English psych-verbs?
    a. What is frequency of accurate/inaccurate uses of psych verbs in terms of
        i. verb type
        ii. animacy
        iii. language level?
    b. What are preferences of the learners in the accurate/inaccurate uses of psych verbs?

1.4. Significance of the Study

Among the increasing number of studies investigating the L2 acquisition of psych verbs (e.g., Chen, 1996; Dehghan & Jabbari, 2011; Juffs, 1996a; Hahn, 2011; Kang & Hou, 2013; Montrul 2001c; Sato, 2000; 2003, 2005; Zhang, 2007 among others; see Appendix 2 & 3 for a summary table of SLA studies on psych verbs), only one of them particularly looked into Turkish-speaking learners of English (i.e., Montrul, 2001c). Montrul's experimental study investigated the relationship between lexical semantics and derivational morphology. She has argued that L1 influence had an important effect at the morphological level, and it was discovered that the Turkish L2 learners of English failed to accept English OE verbs (i.e., *confuse*, *frighten*, *please*, *amuse* & *anger*) with non-overt causative morphology. However, although Montrul (2001c) has presented some empirical findings concerning the acquisition of psych verbs by Turkish L2 learners, there are other core issues related to psych verbs needed to be investigated especially the linking problem (i.e., *Thematic Hierarchy)*, the possible role of animacy and probable

interference of L1 (i.e., Turkish) using more comprehensive and redesigned research instruments under the enlightenment of theoretical and empirical background. Definitely, there is some things unrevealed or unresolved here. As a result, more work is needed to unravel about the roles of these variables in the acquisition of English psych verbs by Turkish EFL learners both in comprehension and production level.

All in all, understanding how learners go about acquiring psych verbs is of special significance for establishing the role of semantic-syntactic interface in the acquisition of English as a second language; besides, it can also have practical implications for teaching verbs to the L2 learners of English in the classroom setting. Therefore, this thesis interrogated the acquisition of argument structure in a condition where mapping of semantic roles to syntax is complicated, where morphological marking vary between English and Turkish and where animacy has a potential role to play because these three determinants are anticipated to create troubles for Turkish learners of English.

1.5. Scope and Delimitations

The current study is firstly limited with five SE and five OE verbs and their investigation at comprehension and production level with three different tasks through a written medium. Therefore, it was not possible to observe the acquisition nature of the learners in spoken language. Besides, they were told that they had to write one sentence using the words provided. So, the participants might produce only their preferred syntactic structures, failing to fully reveal their internal representation(s) of the knowledge about the psych verbs. In parallel with this research design, the number of the respondents participated in the study was limited to "239" Turkish L2 learners of English studying at an ELT department of a state university in Turkey. Therefore, it is not feasible to generalize the results of this study to other L2 learners of English with different educational levels.

1.6. Definition of Terms

Psych Verbs: Psych verbs basically "describe the bringing about of a change in psychological or emotional state" (Levin, 1993, 189). These verbs, also named as *experiencer verbs* (Cupples, 2002; Pesetsky, 1995; Talmy, 1985), *mental verbs* (Croft, 1993) and *emotive verbs* (Rozwadoska, 1988), are mostly thought to carry two semantic roles that are *Experiencer* and *Theme*. Psych verbs are divided into two types according

to whether the *Experiencer* is the subject or the object. We will refer to the former type as SE verbs and the latter type as OE verbs. A list of each verb group is as follows (Levin, 1993, pp. 189-191):

> **SE verbs:** *Positive Verbs*: admire, adore, appreciate, cherish, enjoy, esteem, exalt, fancy, favor, idolize, like, love, miss, prize, respect, relish, revere, savor, stand, support, tolerate, treasure, trust, value, venerate, worship /
> *Negative Verbs*: abhor, deplore, despise, detest, disdain, dislike, distrust, dread, envy, execrate, fear, hate, lament, loathe, mourn, pity, regret, resent, rue
> **OE verbs:** abash, affect, afflict, affront, aggravate, agitate, agonize, alarm, alienate, amaze, amuse, anger, annoy, antagonize, appall, appease, arouse, assuage, astonish, astound, awe, baffle, beguile, bewilder, bewitch, boggle, bore, bother, bug, calm, captivate, chagrin, charm, cheer, chill, comfort, concern, confound, confuse, console, content, convince, cow, crush, cut, daunt, daze, dazzle, deject, delight, demolish, demoralize, depress, devastate, disappoint, disarm, discombobulate, discomfit, disconcert, discompose, discourage, disgrace, disgruntle, disgust, dishearten, disillusion, dismay, dispirit, displease, disquiet, dissatisfy, distract, distress, disturb, dumbfound, elate, electrify, embarrass, embolden, enchant, encourage, engage, engross, enlighten, enliven, enrage, enrapture, entertain, enthrall, enthuse, entice, entrance, exasperate, excite, exhaust, exhilarate, fascinate, faze, flabbergast, flatter, floor, fluster, frighten, frustrate, gall, galvanize, gladden, gratify, grieve, harass, haunt, hearten, horrify, humble, humiliate, hurt, hypnotize, impress, incense, infuriate, inspire, insult, interest, intimidate, intoxicate, intrigue, invigorate, irk, irritate, jar, jollify, jolt, lull, madden, mesmerize, miff, mollify, mortify, move, muddle, mystify, nauseate, nettle, numb, obsess, offend, outrage, overawe, overwhelm, pacify, pain, peeve, perplex, perturb, pique, placate, plague, please, preoccupy, provoke, puzzle, rankle, reassure, refresh, relax, relieve, repel, repulse, revitalize, revolt, rile, ruffle, sadden, satisfy, scandalize, scare, shake, shame, shock, sicken, sober, solace, soothe, spellbind, spook, stagger, startle, stimulate, sting, stir, strike, stump, stun, stupefy, surprise, tantalize, tease, tempt, terrify, terrorize, threaten, thrill, throw, tickle, tire, titillate, torment, touch, transport, trouble, try, unnerve, unsettle, uplift, upset, vex, weary, worry, wound, wow

In this chapter, the relationship between linguistic theories and language acquisition had been outlined with a brief demonstration of their relevant parts assumed for the current study, and a general discussion related to basis of the study were presented stating the problem and the significance. In Chapter 2, a review of current accounts and empirical studies for L2 acquisition of psych verbs were reported. In Chapter 3, the methodological procedures followed throughout the research on the L2 acquisition of psych verbs by

Turkish undergraduate EFL learners were reported. In Chapter 4, the results of research in comprehension and production level were provided. In Chapter 5, the results of the research were discussed with respect to the related literature, the research questions raised and the assumptions proposed for the current research as well as some pedagogical and methodological implications were provided for the future teaching/learning and research environments.

2. LITERATURE REVIEW

2.1. Introduction

In the current chapter, a record of the semantic and syntactic accounts of psych verbs was firstly explained. Following that, the issues of L1 and L2 language acquisition were reviewed from a theoretical linguistic perspective. Lastly, the studies on L1 and L2 acquisition of psych verbs were examined by reporting their main lines. Lastly, the studies related to the teaching of these verbs were included.

2.2. Psych Verbs: A Theoretical Account

First and foremost, a definition and classification of the scope of psych verbs can be required. Assuming Chen (1995a)'s definition of a psych verb, it is a predicate that requires one of its arguments, often an animate being, to undergo an internal emotional or cognitive process or condition as a result of another argument, like *fear/frighten, enjoy/amuse,* as described in Chapter 1. In the following section the flip phenomena and the linking problem, two characteristics of psych verbs will be explained.

2.2.1. The flip phenomena and the linking problem

Lakoff (1971) was the first to observe that psych verbs allow for a unique phenomenon known as "flipping."; that is, psych verbs' subjects and objects can be swapped depending on their structural position, as demonstrated in (2.1.):

(2.1) a. Jack fears the dog.
b. The dog frightens Jack.

We would like to get deeper into what the flip signifies, and why it's problematic. The main theta roles involved in (2.1) are the *Experiencer* and the *Theme*. The *Experiencer,* Jack, is clearly in subject position in (2.1a) but object position in (2.1b). The dog is the object in (2.1a) but the subject position in (1b). Here, a kind of psych-movement occurs, according to Postal (1970, 1971). In the instance of verbs like "*frighten*", the *Experiencer,* Jack, is shifted to the object position, and the *Theme,* the dog, to the subject position. It would be valuable to delve deeper into the meaning of the flip and why it's troublesome.

Thematic information is systematically tied to syntactic configurations, as was mentioned in Chapter 1. To be more specific, theta-roles should be given to structural positions that are identical. If the Thematic Hierarchy and the UTAH are assumed, then the flip in psych verbs as shown in (2.1) calls into question the common assumption of a principled relationship between thematic roles and structural positions. Clearly, the events described in (2.1a) and (2.1b) are the same:

(2.2) a. Jack deliberately / purposefully frightened Megan.
b. Jack is deliberately / purposefully frightening Megan.
c. Jack frightened Megan.
d. *The storm deliberately / purposefully frightened Megan.

Most verbs, such as frighten in (2.2b), have agentive counterparts that take live subjects and modify them with the adverbial deliberately or purposefully. Further examples can be found in (2.2). Both (2.2a) and (2.2b) feature adverbials implying that Jack is trying to scare Megan. The present continuous tense used in (2.2b) is, typically, a sign of a reading of an event. (2.2c) is ambiguous. It can be either an agentive or psych reading, as in (2.2a) and (2.2b). When it has a psych reading, it suggests that Megan was scared by Jack's looking, demeanor, or voice, among other things. In (2.2d), it is impossible for an inanimate object like “storm” to do anything to scare Megan, thus the adverbials deliberately and purposefully are not appropriate. As the examples indicate, because the *Agent* is always realized as the subject and is always higher than the *Experiencer* in object position, agentive psych verbs do not provide a linking problem but psych verbs carrying psych reading (2.2c) can pose the linking problem.

2.2.2. Approaches to the solutions of linking problem

In the lines above, one of the most fascinating issues with psych verbs that is the linking problem was reported. Pesetsky (1995) proposed three logical possibilities for solving the linking problem. To begin with, the surface difference between the pairings (2.1a) and (2.1b) is not existent at a deeper level. To put it another way, the surface subject of the *Theme* in (2.1b) with the verb *frighten* is the result of NP displacement from the initial object location in (2.1a). As a result, the *Theme* is always the internal argument in both (2.1a) and (2.1b), and the *Experiencer* is projected to a place higher than the *Theme*.

As a result, the UTAH has no problems with psych verbs. The method of *fine-grained syntax* is the name for this solution.

The second possibility is that the apparent thematic similarities between the two classes of psych verbs are merely superficial. In other words, the thematic representation of SE and OE verbs is not the same. Distinct thematic characteristics of different predicates may have different structural representations in this scenario. As a result, the UTAH has been salvaged. This is the *fine-grained semantics* approach. Unlike the previous two options, which preserve the spirit of UTAH, the third option claims that UTAH is incorrect and should be abandoned (Rosen, 1984). If this is the case, there is no linkage issue to begin with.

Because the *Thematic Hierarchy* and UTAH come into action at the level of D-structure, and they relate semantics with syntax, the UTAH is one of the useful and robust mechanisms in UG theory. The principles guarantee that thematic arguments and syntactic positions are linked correctly. Also, the idea that thematic prominence parallels with syntactic prominence is reflected in the UTAH. As a result, in order to find an explanation for verbs in relation to the linking problem, the current study will assume the UTAH. The lines that follow will go over several recent accounts of psych verbs. Initially, three famous psych verb analyses will be shortly expressed.

Linguists have been fascinated by the peculiar features of psych verbs for two decades. As a result, there is a substantial amount of study in the literature. Jackendoff (1972), Lakoff (1971) and Postal (1970, 1971) were among the first to study psych verbs in English in terms of transformational grammar, and since they discovered the unique features of these verbs, there have been a slew of studies looking into them. Belletti and Rizzi (1988), Pesetsky (1995) and Grimshaw (1990) investigated psych verbs crosslinguistically. In this chapter, the prominent explanations of psych verbs done by those three scholars were summarized, and some key characteristics of psych verbs which no study of this verb class can ignore were gone through.

Only Belletti and Rizzi (1988), Grimshaw (1990), and Pesetsky (1995), the three most notable GB-based research on psych verbs, will be discussed here. Belleti and Rizzi's answer to the linking problem fits under the first category, fine-grained syntax, by claiming that OE verbs are unaccusatives. Pesetsky's (1995) method comes into the second category: *fine-grained semantics*. He solves the linking issue by assuming that the SE and OE verbs have different configurations due to a thematic difference. Grimshaw

assumes that SE and OE psych verbs have the same thematic relationship: *Experiencer* and *Theme*. However, when it comes to aspectual features, the two classes of verbs are essentially different. OE verbs have a causative meaning, creating a change in the *Experiencer*'s psychological state, hence the *Theme* is essentially the *Cause*. SE verbs, on the other hand, are always stative. As a result, the *Theme* is not *Cause*. Because of the interaction of the thematic and aspectual qualities, SE verbs are distinguished from OE verbs.

Belleti and Rizzi (1988) and Grimshaw (1990) have two things in common. Initially, both SE and OE verbs use the same theta grid. Second, both get to the same conclusion that OE verbs do not have external arguments, however they differ in that Belleti and Rizzi's surface subject is a derived subject, whereas Grimshaw's surface subject is a D-structure subject. Belleti and Rizzi and Pesetsky share two things. To begin with, both argue for a configurational contrast between SE and OE verbs: SE verbs are similar to other ordinary transitive verbs, whereas OE verbs are distinct. Also, both Grimshaw and Pesetsky consider *Cause* to be an effective factor. In the following subchapter, the approach suggested by Pesetsky (1995) will be explained.

2.2.2.1. Pesetsky (1995)

Pesetsky (1995) approaches the arbitrary linking problem from the perspective of *fine-grained semantics*, unlike Belleti and Rizzi (1988) and Grimshaw (1990), who assume the same theta-grid for both SE and OE verbs. The semantic distinction between the object of SE verbs and the subject of OE verbs is key in this approach. That is, with SE verbs, the object argument should be a *Target* or *Subject Matter* (also known as the Object of Emotion) which is something about which an animate being has feelings or emotions, whereas with OE verbs, the subject argument should be a *Causer* which is something that arouses feelings or emotions in a specific animate being.

Because the object theta role of the verb *fear* is no longer *Theme*, and the subject theta role of the verb *frighten* is no longer *Theme*; in other words, as different theta roles are claimed for SE and OE verbs, the mapping of thematic information onto syntactic configuration can still observe the UTAH. As a result, the arbitrary linking problem is solved without violating the UTAH.

(2.3) a. *The article annoyed Jack at the government.

b. *The food pleased Jack with his trip to New York.

(2.4) a. The article made Jack annoyed at the government.

b. The food made Jack pleased with his trip to New Yok.

However, a solution to the linking problem like this creates a new issue. That is, if *Causer* is thought to be completely different from *Target/Subject Matter*, then *Causer* should be able to cooccur with *Target/Subject Matter* with the same verb. However, as the grammatical errors in the sentences above (2.3) demonstrate, this is not possible. This is not a semantic issue, because in English, a periphrastic causative construction with both *Target/Subject Matter* and *Causer* is perfect, as shown in (2.4). Pesetsky (1995) presents a bimorphemic analysis of OE verbs to tackle the above dilemma, which he refers to as the *Target/Subject Matter (T/SM) restriction*. As seen in the diagram, verbs like *amuse* have a verb root *√amuse* (which is actually a SE verb, e.g., *please*) and a *zero causative morpheme CAUS* (2.5):

(2.5) [[√amuse] ∅Caus]

This strategy is intriguing in two ways. Preliminary, it makes the crucial premise that SE and OE verbs have distinct thematic representations. Second, it proposes OE verbs a zero causative analysis. These two suggestions have resulted in a new hierarchy of thinking about the problems with psych verb (2.6):

(2.6) Causer > Experiencer > Target/Subject Matter (Pesetsky, 1995, p. 59)

Pesetsky suggested that there are semantic distinctions between SE and OE verbs, and that the linking problem should be solved using separate D-structures. The following four issues, however, plague this account. To begin with, the fact that *Causer* is base-generated at a lower rank than *Experiencer* contradicts Pesetsky's *Thematic Hierarchy*. *Causer* is ranked higher than *Experiencer* in (2.6), but not in the D-structures (as reported in Chen, 1996, pp. 44 - 46). The *Experiencer* is higher than the *Causer*. Aside from that, there are two *Causers*, one higher than the *Experiencer* and the other lower. Chen (1996) questions that how two *Causers* could coexist in the same structure.

(2.7) a. EO type: [Causer, [Experiencer, Target/Subject Matter]]

b. ES type: [Experiencer, Target/Subject Matter]

Chen (1996, p. 73), taking his rejection into consideration, has presented a different approach to the peculiar issues of psych verbs. Separate theta grids for two types of psych verbs are suggested based on this analysis: [Experiencer T/SM] for SE verbs, and [Causer [Experiencer, T/SM]] for the OE verbs (2.7). As a result, the linking problem is reduced to a predictable mapping of arguments to syntactic positions: in accordance with the thematic hierarchy, more prominent arguments project to a higher position, while less prominent arguments project to a lower position. OE and SE verbs are said to have their own distinct D-structures, with a projection of CAUS for the former and a projection of BE for the latter, based on two independent theta grids.

In the current study, the approach adopted is the one suggested by Pesetsky (1995) and adapted and developed by Chen (1996) which is that SE and OE verbs do not share the same theta grid, hence their D-structures are distinct. Therefore, there is no longer an arbitrary relationship between thematic arguments and structural positions in this approach.

The fundamental difference between English and Turkish OE verbs is that English has a productive pattern of synthetic OE verbs, in which a zero causative morpheme is encoded lexically with an OE verb root, as Pesetsky (1995) observed, whereas Turkish has a productive pattern of periphrastic OE verbs, in which an overt causative morpheme (-(DIr), -(t)) is encoded lexically with an OE verb root.

2.3. Psych Verbs and Language Acquisition

The syntactic structure of verbs is highly influenced by their lexical features, as seen in Chapter 1. It can be therefore crucial to first learn the lexical qualities of psych verbs before moving on to the next step. In English, a zero causative morpheme is lexically encoded with OE verbs. As a result, learning OE verbs can primarily be about learning this zero morphology. Because the mapping of thematic arguments of psych verbs onto structural locations is a logical challenge of language acquisition, the acquisition of psych verbs can be a way to assess if L2 learners can access UG principles like the UTAH and the *Thematic Hierarchy*. All the problematic characteristics of psych

verbs should simply fail out if L2 learners can acquire the *zero CAUS* because these principles would be available.

In this chapter, we will go over the most recent findings on the acquisition of psych predicates in L1 and L2. While some studies on the acquisition of psych verbs have concluded that psych verbs of the OE class cause more difficulty for learners, no current study has investigated how the argument structures of each different type of psych verb, specifically, are represented and perceived by Turkish L2 learners in a target language like English. An in-depth look at how these psych verbs are learned can be useful and vital in determining if L2 learners access UG or not. As a beginning, the pertinent L1 acquisition material related to psych verbs in English will be reviewed. Then, the existing literature on the L2 learning of psych verbs will be reviewed from theoretical and practical perspectives in order to discover why a new study on the L2 acquisition of psych verbs is needed.

2.3.1. Psych verbs in L1 acquisition of English

The literature presents little research done on children's acquisition of psych verbs in their first language. There could be two explanations for this (Chen, 1996). On the one hand, psych verbs are typically more abstract than nonpsych verbs, making it more difficult for researchers to devise effective tests to assess children's understanding of these predicates. Small children, on the other hand, may be too cognitively immature to understand predicates containing psychological emotions and processes. However, there are two studies in the literature that include some data on English psych verbs, one of which is specifically focused on the L1 acquisition of psych verbs by little children. These are the findings of Lord (1979), who looked at the topic of generalizations in child L1 acquisition and the causative/noncausative alternation. Also, Bowerman (1990) investigated how English-speaking children project thematic roles onto syntactic positions with respect to verbs that appear to be linked haphazardly.

There were three errors employing psych verbs of OE class among Lord's (1979, as cited in White et. al., 1999) data of language errors obtained from a couple of English-speaking children's naturalistic utterances (2.8):

(2.8)	a. Jennifer (4;7)	I'm just gonna hold 'em and look at 'em and, uh, interest them. (=have an interest in)
	b. Benjy (3;11)	You're bothering me! You keep on talking to her! And that makes me bother! (=be bothered)
	c. Jennifer (8;5)	They attract by the peanuts in the snow. (=are attracted by)

(2.8a) demonstrates that the verb *interest* was used as an SE verb with the *Experiencer* as the subject. The youngsters employed the transitive OE verbs intransitively in (2.8b) and (2.8c), putting the *Experiencer* NP in the subject position again. It is worth noting that, with regard to (2.8b), Benjy was correct on one occasion but incorrect on another in the same utterance, demonstrating that he had not learned the correct usage of this OE verb.

No data involving SE psych verbs is reported by Lord (1979, as cited in Chen, 1996). However, as demonstrated in (2.9), the children tested made some errors with transitive perception verbs like *hear* and *see*, which could indicate a pattern of errors that children could make in the SE class.

(2.9)	a. Jennifer (2; 9)	I can't hear it. (puts clock to ear). It can hear now. (= it can be heard now)
	b. Benjy (3; 8)	They don't seem to see. Where are they? (they = sandals) – (= I don't seem to see them)

The *Theme* were elevated to subject position in both (2.9a) and (2.9b), whereas the *Experiencers* were omitted. The research, according to Lord, shows that youngsters treat the verbs *hear* and *see* as *open* and *break,* which can alternate between transitive and intransitive forms.

Except for (2.8a), it appears that all the following errors include the incorrect usage of transitive verbs intransitively, which is part of Lord's primary claim that children typically overgeneralize transitive verbs as intransitive verbs, and vice versa. Therefore, it is not possible to make any conclusions about these two children's L1 learning of psych SE and OE verbs because no errors of the SE class of psych verbs were identified, except that they tended to put the *Experiencer* in the subject position for OE verbs. While it's true that the perception verbs *hear* and *see* have a pattern with SE psych verbs like *fear* and *like*, as Chen (1996) argued, it is unclear how youngsters would deal with the real SE

psych verbs in terms of linking arguments to the syntactic positions. It is also unclear why the kids preferred the *Experiencer* to be the subject of OE verbs. Is this only evidence of children's awareness that an animate person must be realized as the subject, as generalized from the canonical structure, or is it evidence those tiny children already knew that the Experiencer should project in a higher position?

Bowerman (1990) investigated whether children mapped thematic responsibilities onto syntactic functions using innate norms or through learning in her research. She used longitudinal spontaneous production data collected from her own two children through diary entries over several years to test the two hypotheses. A set of utterances about psych verbs is included in her data. Some examples can be found in (2.10, Bowerman, 1990, p. 1284):

(2.10)	a. Christy (8;7)	I have an idea, but it won't approve to you or daddy. (=you and daddy won't approve of it)
	b. Christy (9;0)	How does “Hurly Girl" fancy you? (= how do you fancy/like ...)
	c. Eva (6;2)	It didn't mind me very much. (= I didn't mind it/it didn't bother me)
	d. Eva (6;6)	1saw a picture that enjoyed me. (=that 1enjoyed)
	e. Christy (7;0)	Don't do that! I don't appeal to that! (=That doesn't appeal to me)

Unlike Lord's data, which exclusively reflected children's errors with OE psych verbs, Bowerman's data solely indicated faults with SE psych verbs, except for the one appeal in (2.10e), which was an OE verb. Two points were seen worth highlighting here. First, the *Experiencer* was mistakenly placed in the object position in all the SE psych verb errors, except for (2.10a), where the *Experiencer* was a prepositional object. These errors point in the opposite direction as Lord's (1979) findings, which showed that the *Experiencer* was placed in the subject position if it was expressed. The question now is why Bowerman's children placed the *Experiencer* lower on the scale than the other argument. Second, the two youngsters that made these errors were older than six, which is substantially older than the children mentioned in Lord (1979). According to Bowerman's journal notes, the children's mapping errors involving psych verbs were not caught until they were six years old. The question arose as to why the children made no mistakes with psych verbs till they were six years old. The errors in (2.10), according to

Bowerman, indicated that children were generalizing a learned linking rule requiring the *Stimulus* (*Theme*) to be in the subject position and the *Experiencer* to be in the object position. According to Bowerman, children picked up this rule by hearing things like "The ghost frightened me," simply because OE verbs like *frighten*, *please*, and others are statistically more often in English than SE verbs like *fear*, *approve*, *enjoy*, and so on, as Talmy (1985) observed. Children did not make any errors in terms of mapping once they understood the rule. However, as time passed, they began to apply the norm to verbs such as *approve*, *enjoy* which are less common in English. As a result, generalization errors occur. The lateness of errors with psych verbs was used by Bowerman to support her claim that the linking pattern was learned through input.

All in all, it is hard to assess the degree of difficulty or error direction that children may have demonstrated in the acquisition of both classes because neither Lord (1979) nor Bowerman (1990) presented us with a complete picture of errors involving OE and SE classes. Finally, if no errors were interpreted early on as indicating that the child had acquired the necessary knowledge, it is unlikely that children who knew how to map thematic roles to syntactic positions for OE verbs before a certain age suddenly lost that knowledge after that age due to overgeneralization.

2.3.2. Universal Grammar and second language acquisition

The study of language acquisition from a theoretical linguistic perspective entail attempting to determine how language emerges in the mind as an abstract and complicated formal system. UG based theories provides a theoretical framework within which researchers can formulate theories regarding how language learning occurs, based on linguistic concepts and analyses. In this approach, language acquisition is driven by a strong intrinsic component, and that input plays a role in giving stimulation for the development of biologically determined components of language.

Children acquire languages in a relatively short amount of time and with a high degree of success. Regardless of the restrictions of language input and experience, children can learn a complicated system of rules or principles (grammar). Chomsky (1981, 1986, 1995) proposed an innate domain-specific construct known as Universal Grammar (UG), which consists of a set of universal principles and parameters, to answer this logical challenge of language acquisition. Universal Grammar is a theory of the initial state of the language faculty in L1 acquisition. This genetically determined initial state

progresses through several stages in normal children before stabilizing in a relatively uniform stable state with minimal variation except for the lexicon.

In various ways, L2 acquisition varies from L1 acquisition. L2 learners are cognitively developed, have a stable linguistic system in place, and success in the second language is neither assured nor uniform among learners. Many studies (e.g,, Chen, 1996; Montrul, 2001c; White et. al., 1998), on the other hand, feel that L1 and L2 acquisition have significant similarities in terms of the learning problem and the learning task, which motivates the use of UG in second language acquisition. The L2 learner must additionally construct an abstract and sophisticated system of rules from input, according to White (1989), which substantially underdetermines the grammar gained. L2 learners exhibit discrete stages of learning as well, developing intermediate grammars (i.e., interlanguage, Selinker, 1972) that integrate aspects from both the L1 and L2.

This grammar-building process is methodical and principled, reflecting the kind of hypotheses that L2 learners entertain when they migrate from one system to another in predictable ways. Furthermore, despite differences in learning environments, second language learners, like native speakers, can acquire unconscious knowledge of very abstract properties of the target language and make subtle judgments about what is and is not possible in the L2, properties that are never discussed in a formal teaching environment.

As a result, the generative framework's study of SLA is concerned in part with what happens to the language faculty once the L1 has reached its stable state. Earlier work in this approach focused on the topic of whether UG was available or not in L2 acquisition, with a particular emphasis on grammar formation and parameter resetting. The answer to this question is still up for debate, partially because the underlying methodological assumption was to compare non-native grammars at different stages of development to native grammars in absolute terms. If L2 learners behaved like native speakers, UG was considered to be available; if they did not, UG's availability was questioned (Schachter 1989). Researchers have been concerned about the extent to which UG and L1 knowledge are involved in the L2 acquisition process when it comes to initial state and future development difficulties. In recent decades, a number of ideas have been proposed to explain the position of functional categories in L2 acquisition. Following are reviews of three theories that are the views of the initial state and the nature of L2 knowledge: the

Fundamental Difference Hypothesis (FDH), Full Access (FA), and Full Access/Full Transfer (FA/FT).

According to the *Fundamental Difference Hypothesis* (FDH, Bley-Vroman 1989, 1990, 1996), adult L2 learning differs from children's first language acquisition in a variety of ways. L1 acquisition is always successful, whereas L2 acquisition is fraught with inconsistency and failure. While children are directed by UG in the acquisition of their L1, UG is only available to L2 learners as it is instantiated in their L1. As a result, this view suggests that the L1 is the initial state of L2 learning, and thus L2 learners no longer have access to UG alternatives not reflected in their L1. As a result, rather than domain-specific linguistic mechanisms, further development is explained by the functioning of broad abstract cognitive mechanisms (such as problem-solving).

This proposition is being made for a number of factors. Adult second language learners frequently learn languages with a specific goal in mind and in a variety of contexts (instructed or natural environments), employ a variety of learning strategies, and stop their learning process at some point. They also frequently do not appear to overcome certain stages (fossilization). Language learning appears to be affected by age. Furthermore, affective characteristics like as motivation, attitude, and personality are extremely susceptible to L2 language development, but none of these appear to play a substantial influence in L1 development. According to Bley-Vroman (1990), the basic differences between adults and children suggest that learning a language for adults is like learning any other ability. Although L2 learners may eventually develop a knowledge system, this system differs from native systems in terms of psychological and cognitive status, exactly because the mechanisms involved are different.

Because this theory emphasizes differences between L1 and L2 acquisition, evidence for this position comes from comparing native speakers' patterns of behavior to non-native speakers' patterns of behavior, demonstrating that non-native speakers cannot acquire L2 properties that are not instantiated in their L1. The FDH claims that L2 learners have access to innate linking rules (because they are already instantiated in their L1) and predicts that L2 learners will be able to acquire the relevant aspects of meaning of individual verbs, as well as the thematic roles *Agent*, *Theme*, and *Goal* are encoded syntactically. The restricted features of verb meaning that determine which syntactic positions verbs will take will be unavailable to L2 learners, precisely because the syntactic consequences of these may differ from language to language. As a result, L2 learners will

be unable to derive rules from the input and apply them to other newly acquired verbs in a productive manner.

On the flipside, Epstein, Flynn, and Martohardjono (1996) argue that L1 and L2 cognitive processes are fundamentally identical in nature (i.e., *The Full Access Hypothesis*), contrary to the FDH, UG constrains L2 acquisition in its entirety from the start and throughout the development. As a result, the initial state of L2 acquisition is the same as the initial state of L1. The L1 appears to play no or only a minor part in the L2 acquisition process for this position. Regrettably, this issue has never been fully stated, leaving it open to various interpretations (Montrul, 2001c). Furthermore, this view confronts a significant empirical test since if the L2 learners' L1 is an instantiation of UG in and of itself, it is difficult, if not impossible, to demonstrate that the L1 plays no role (see Hale 1996). Evidence for this perspective hinges on discovering the three issues in order to entirely rule out L1 impacts:

> 1) Early L2 learners can pick up on L2 qualities that aren't represented in their LI,
> 2) L2 learners progress in the same way that L1 learners do,
> 3) Rather than transmitting structures from their separate L1s, L2 learners from various language backgrounds show comparable patterns of development.

Unlike the *Full Access* model (Epstein, Flynn, and Martohardjono, 1996), but superficially related to the Fundamental Difference Hypothesis (Bley-Vroman 1989, 1990, 1996), L2 learners, according to Schwartz & Sprouse (1994, 1996), approach the L2 acquisition process believing that their L1 (without the phonetic matrices of lexical/phonological items) is the beginning grammar (i.e., *The Full Transfer Full Access Hypothesis, FT-FA*). This position, which was first articulated by White (1985, 1986) within the parameter resetting model of L2 acquisition, differs from the FDH in the assumption that when input data can no longer be examined using the L1 grammar, L2 learners reorganize their interlanguage and turn to principles and operations bound by UG throughout subsequent development (hence Full Access). L1 and L2 acquisition often differ in their end state, as well as in their initial condition. In both learning settings, however, the cognitive mechanisms that underpin development are the same. This viewpoint helps explain interlanguage development variability, such as the fact that L2 learners stop learning (i.e., fossilization) at different times of development and that L2 and L1 acquisition final states may never converge. Because one of the central claims of

this proposal is that *Full Transfer* always comes before *Full Access*, even if the Transfer stage is brief, it predicts that transfer errors should come before developmental errors, which cannot be traced back to the L1 or L2 but are consistent with universal principles, but not vice versa, and that both types of errors should not occur in the same domain.

Inspired by the perspectives of these hypotheses, the current focus of this research is on identifying the initial state of L2 acquisition, mechanisms involved in subsequent development, the role of UG in restricting interlanguage systems during development, and the nature of the final state. The ultimate goal is to conduct an SLA study to better understand the cognitive and linguistic processes that underpin adult learners' interlanguage grammars.

2.3.3. Psych verbs in L2 acquisition of English

The current study firstly started an analytical review of previous studies on psych predicates (i.e., psych verbs, adjectives, and nouns) in second language acquisition because the scope of some studies consisted of psych verbs in addition to psych adjectives and nouns (e.g., Chen, 1996). However, the ones on psych adjectives and nouns were lied outside the scope of this review. In the following lines of this chapter, only the main findings of the studies in L2 acquisition of psych verbs have been discussed and compared (see Appendix 2 & 3 for a summary of the studies, the main details of them including aim, theoretical perspective, methodology, and the verbs analyzed). For the purpose of reviewing the related literature, a total of twenty-nine research articles (n = 17), doctoral dissertations (n = 2), conference proceedings (n = 4), books (n = 2), book-chapters (n = 2) as well as a poster (n = 1) and an unpublished student paper (n = 1) have been examined. Based on this review, firstly, the moderator variables of the studies have been presented comparatively.

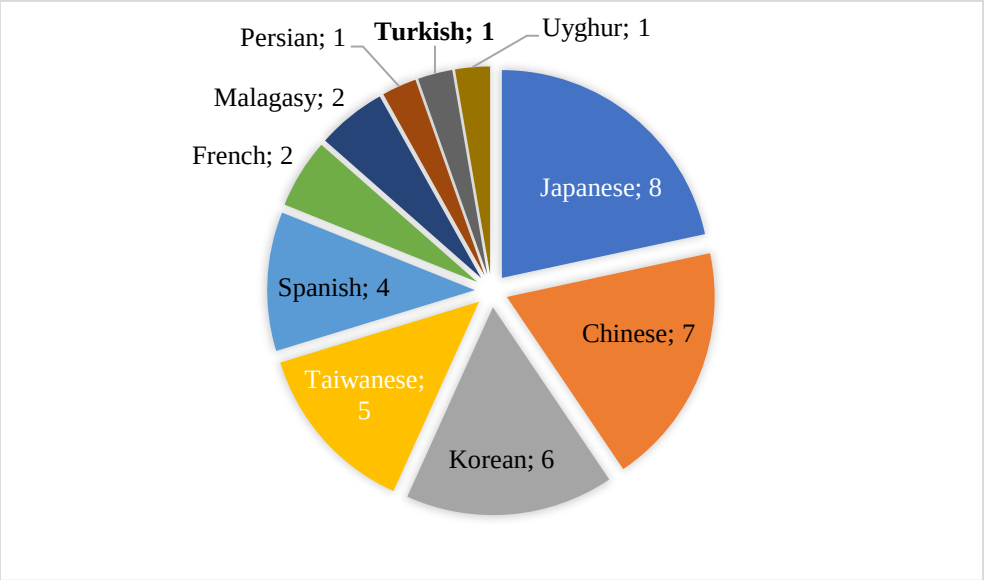


Figure 2.1. *The number of SLA studies with different L1s (L2/L3: English)*

According to Mackey & Gass (2005), "a moderator variable is a type of independent variable that may not be the main focus of the study but may modify the relationship between the independent variable and the dependent variable." (p. 103). Following this point of view, the moderator variables of the reviewed studies have been identified (see Appendix 2). These variables included 1) research context, 2) participants' L1s, 3) academic status, 4) field of study, 5) age, 6) gender, 7) age of first exposure to L1, 8) amount of previous English study and 9) time spent in an English-speaking country. As for the initial variable L1 seen in Figure 2.1, the review indicates that SLA studies investigated the acquisition of psych verbs, adjectives, and nouns by the participants with ten different L1 backgrounds that are Turkish (i.e., Montrul, 2001c), Japanese (i.e., Hirakawa & Suzuki, 2014; Montrul, 2001c; Sato, 2000; Sato, 2003; Sato, 2005; Sato, 2008; Shomura-Isse, 2005; White et al., 1999), Chinese (i.e., Chen, 1996; Chengping & Yang, 2015; Juffs, 1996a; Juffs, 1996b; Kang & Hou, 2013; Zhang, 2007; Zhang, 2015), Korean (i.e., Hahn, 2011; Guilloteaux, 2001; Hwang, 2000; Kim, 2015; Yoon, Shin & Chung, 2017; Son, H. D. & Kim, 2011), Taiwanese (i.e., Hsin, & Lin, 2006; Witoon & Singhapreecha, 2012a; Witoon, & Singhapreecha, 2012b; Thepsura, 1997; Thepsura, 2005), Spanish (i.e., Hirakawa & Suzuki, 2014; Montrul, 2001c; White et al., 1999; White et al., 1998), French (i.e., Chen, 1996; White et al., 1999; White et al., 1998), Malagasy (i.e., White et al., 1999; White et al., 1998), Persian (i.e., Dehghan & Jabbari, 2011), and Uyghur Turkish (i.e., Tash, 2017).

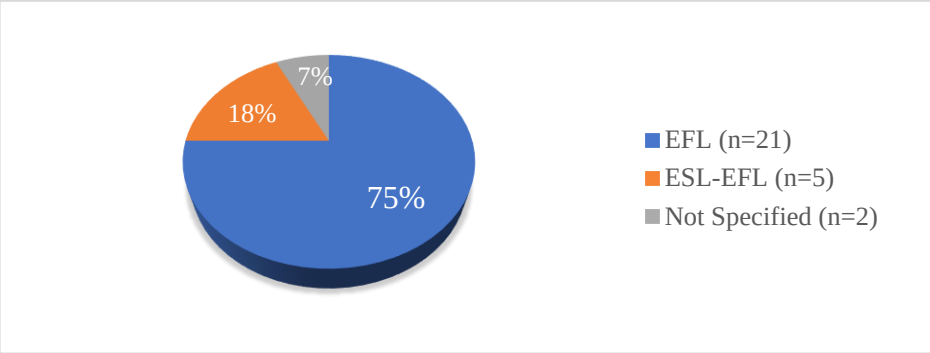


Figure 2.2. *Research contexts in reviewed SLA studies*

When it comes to the research context (Figure 2.2), as predicted based on the participants' first languages, quite a number of studies were conducted in countries such as Turkey, Japan, Korea, China, Spain etc. where English is spoken and taught as a foreign language (*n* =2 1; 75%). Relatively few studies *(n* = 5; 18%), on the other hand, were conducted in the countries such as Canada, USA, Malagasy (e.g., Montrul, 2001c, White, 1999) as the research environment where English was the first and/or one of the official languages.

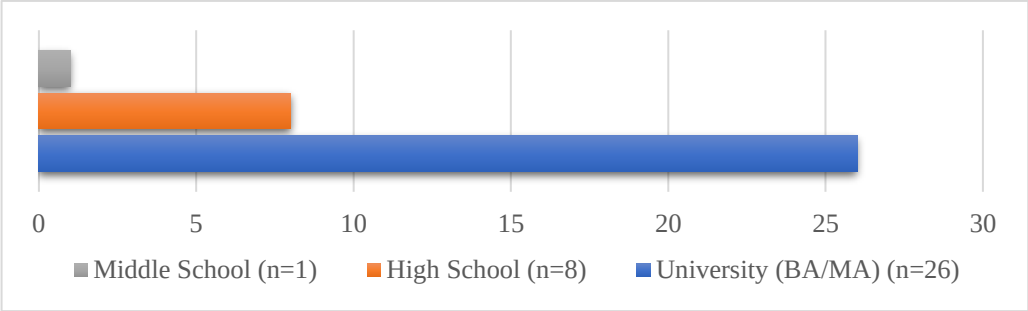


Figure 2.3. *Academic status of the participants in SLA studies*

The institutions in which the participants get educated and their academic statuses haven been summarized in Figure 2.3. Most of the studies (i.e., *n* = 26) surveyed undergraduate and/or graduate university students (e.g., Chengping & Young, 2015; Hirakawa & Suzuki, 2014; Kang & Hou, 2013; Juffs, 1996a; 1996b; Montrul, 2001c; Thepsura, 2005) while the rest eight made an investigation on middle and/or high schools students (Hirakawa & Suzuki, 2014; Hsin & Lin, 2006; Kim, 2015; Montrul, 2001c; Son& Kim, 2011; Witoon & Singhapreecha, 2012a; 2012b; Zhang, 2015). For the detailed information related to the other moderator variables that has not been figured

above, you may see Appendix 2. As these variables (ie., field of study, age, gender, age of first exposure to L1, amount of previous English study, time spent in an English-speaking country) have not been reported by all studies, they could not be entirely compared in this section.

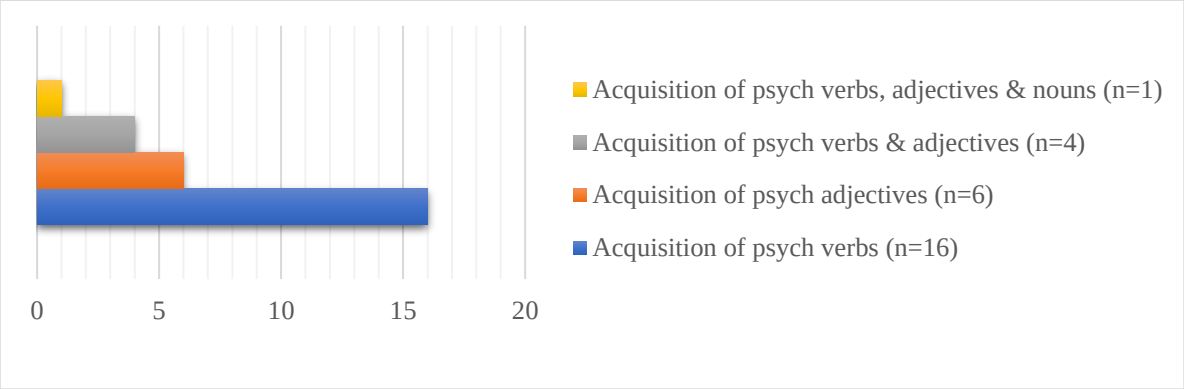


Figure 2.4. *The scope of SLA studies on English as L2*

The examination related to the scope of SLA studies where English was the L2 (see Figure 2.4) has revealed that they were gathered on three main lines that were acquisition of psych verbs, acquisition of psych adjectives and psych nouns by L2 learners with different L1 backgrounds. While most of the studies (*n* = 16; 55%) mainly took psych verbs at the center of their research scope (e.g., Kang & Hou, 2013; Montrul, 2001c; White et al., 1999; Zhang, 2007), quite a few of them (*n* = 6; 20%) investigated the acquisition of psych adjectives (e.g., Hirakawa & Suzuki, 2014; Yoon, Shin & Chung, 2017; Zhang, 2015). The rest five studies focus both on the acquisition of psych verbs and psych adjectives (Kim, 2015; Sato, 2003; 2005; Tash, 2017) as well as psych nouns (Chen, 1996). With specific reference to psych verbs, the main constructs that the SLA studies focus on were the acquisition of thematic roles (e.e., Chen, 1996; Hsin & Lin, 2006; Sato, 2000; 2003; Son & Kim, 2011; Thepsura, 2005, Zhang, 2007; White et al., 1999; Witoon & Singhapreecha, 2012), the role of animacy in acquisition of psych verbs (i.e., Chen, 1996; Deghan & Jabbari, 2011; Kim, 2015; Tash, 2017; Zhang, 2007), the acquisition of the zero morpheme CAUS (i.e., Chen, 1996; Juffs, 1996a; 1996b, Kang & Hou, 2013; Montrul, 2001c; Son & Kim, 2011; Zhang, 2007; Thepsura, 2005; Sato, 2000; 2003; Witoon & Singhapreecha, 2012), the acquisition of Pesetsky's (1995) Target/Subject Matter (T/SM) restriction (i.e., Chen, 1996; White et al., 1998; Zhang,

2007), binding theory (backward and forward binding; i.e., Chen, 1996), the role of passivization on the processing of psych verb constructions (i.e., Hahn; 2011), the effect grammar teaching approaches (i.e., input-processing for comprehension approach, and an output-processing for production approach) on the intake of word order of transitive psychological verbs (i.e., Guilloteaux, 2001), and the applicability of The Competition Model (MaWhinney, 1992) to the acquisition of English psych verbs (i.e., Hwang, 2000).

In the following lines of this chapter, the main findings of the studies in L2 acquisition of psych verbs have been discussed and compared. As a beginning, Juffs (1996a expanded from Juffs, 1996b) examined the learnability of semantic-syntax correspondences in L2 acquisition by investigating a hypothesized parameter (i.e., the Root Morpheme STATE Conflation Parameter), and tested Chinese English learners. The findings indicated that the low and intermediate level learners used much less transitive psych verbs (i.e., *interest* & *disappoint*) than the controls in the EPT. The advanced level students behaved in the same way that the controls did. Low and intermediate level learners seemed hesitant to utilize the psych verb *interest* transitively while higher-level students preferred the transitive usage of psych verbs more. When low-level groups utilized transitive verbs, they committed mistakes such as "*The man interested the report*". Also, low-level learners rarely produced statements like "*The report made the man interested*" even though the Chinese counterpart is widely used in the language. Second, all the L2 groups preferred to employ the adjectival form which had the largest rate of people using it among the four types of structures. In the Grammaticality Judgement Task (GJT), five psych verbs (i.e., *bore, disappoint, terrify, frustrate,* and *interest*) were incorporated and utilized in both transitive and periphrastic forms. When compared to the controls, the lower-level learners significantly rejected psych verbs employed transitively, and this rejection continued until they attained a high level of skill. In terms of the acceptance of the transitive use of psych verbs against the periphrastic use of psych verbs, the results showed that Chinese English learners favored the latter over the former. Even low-level students had a stronger acceptance than high-level students. This contradicts the results of the production task, which showed that the transitive version was created more than the periphrastic version. The expert Chinese learners patterned with the controls, but the low and intermediate Chinese learners created or accepted fewer transitive uses of psych verbs. These findings, according to Juffs, showed that a process of parameter resetting occurred throughout the learning of L2 since the L1

parameter setting was replaced by the L2 parameter setting as learners' English ability improved. Because the researcher did not include an SE verbs session in his test, there was no way to compare how his Chinese English learners reacted to the OE class.

White et al. (1999) investigated whether the mapping of psych arguments to grammatical locations in L2 learners' IL grammars was arbitrary, and whether principles like the UTAH and the *Thematic Hierarchy* were available to L2 students or not. The findings of the Sentence Completion Task (SCT) demonstrated that all the experimental groups were extremely correct on all sentence types, with no significant differences between OE and SE verbs. The Japanese and high Malagasy groups were considerably less accurate in terms of SE verbs than the controls in terms of OE verbs. The accuracy of the Japanese and Law Malagasy groups was much lower than that of the controls. Clearly, these findings did not support or refute any hypothesis. In the second experiment, the results of the Picture Identification Task (PIT) revealed that Japanese learners were much less accurate than controls and francophones on OE verbs. On SE verbs, those Japanese students were much more accurate than on OE verbs. On either class of verbs, the French students did not differ significantly from the controls, and they performed equally well on the OE and SE verbs. The results of this study implied that the OE class was more difficult for L2 learners who had trouble with psych verbs in general. Furthermore, the results revealed that the learner's first language was important in the acquisition process, since francophones did much better than Japanese on OE verbs. The third experiment used the identical task to evaluate high-intermediate and low-intermediate Malagasy and Spanish speakers. According to the results of the PIT, all groups were considerably more accurate on SE verbs than OE verbs. Individual data implied that most individuals learned both the SE and OE classes of verbs; those who had not learned both had significant difficulties with OE verbs. All in all, White et al. (1999) concluded that L2 learners appeared to be sensitive to psych verbs' argument structure features. In their interlanguage grammars, the connection of *Experiencer* and *Theme* arguments to syntactic positions was not random. UTAH and the *Thematic Hierarchy* appeared to still direct L2 learners, rather than features of the L1 grammar or the L2 input alone.

White et al (1998) investigated whether those who had grasped the basic features of psych verbs would be aware of the T/SM restriction (Pesetsky, 1995). The study's goal was to see if L2 learners' knowledge of the T/SM restriction correlated with their

knowledge of psych verbs in general (as Pesetsky (1995) claimed). The results of the GJT indicated that L2 groups (i.e., francophone, Malagasy-speaking and Spanish-speaking ESL students) were not statistically different from one another, and that they accepted the ungrammatical T/SM sentences significantly more than the English controls, who rejected them. Although the controls did not like the ungrammatical T/SM sentences, their mean scores on rejecting this type of ungrammatical sentence were much lower than their mean scores on rejecting the other type of ungrammatical sentences. According to White et al. (1998), this showed that T/SM restriction was not as terrible as ungrammatical statements in general. They concluded that while it was still unclear whether ESL learners might gain knowledge of the T/SM restriction, it was apparent that knowledge of the T/SM restriction did not follow from a basic understanding of English psych verbs. In terms of the T/SM constraint, the L1 of L2 learners did not play a significant influence. However, it was obvious that L2 learners' difficulties with OE verbs were consistent with the findings of Juffs (1996) and White et al (1999).

Within the context of *Thematic Hierarchy*, UTAH, T/SM restriction, zero CAUS and the Government and Binding Theory, Chen (1996) investigated how Chinese and French-speaking adult English learners acquired English psych predicates in their second language. She examined how Chinese and French learners of English acquired psych verbs, adjectives, and nouns. Because OE psych predicates required zero causative morphology, but SE predicates did not, she predicted that OE verbs would be more troublesome for learners. Furthermore, because Chinese had zero causative morphology, but French did not, it was thought that Chinese learners of English would have more trouble with English psych predicates than French learners of English. For low and intermediate Chinese learners, the overall results showed that OE verb performance was much worse than SE verb performance. French students, on the other hand, acted as if they were the English controls. Students who spoke Chinese and French had similar competence levels (poor and intermediate), but their performance on English psych verbs was dramatically different. Chinese students struggled more than French students with OE psych verbs. The difference between the morphology of OE verbs in Chinese and French was linked to this: Chinese could not convey the causativity with a single verb but could do so independently using a periphrastic construct. As a result, Chinese students were unable to understand OE verbs with no causal morphology.

Montrul (2001c; extended from 2000; 2001a; 2001b) investigated the acquisition of the causative alternation in English, Spanish, and Turkish as second languages by learners whose first languages were English, Spanish, Turkish, and Japanese. She predicted that morphological errors could be traced back to L1 and conducted experiments with people whose L1s differed in how the alternation manifested itself morphologically. If morphology was expressed overtly in L1 but not in L2, learners would struggle with zero morphology in L2, and if morphology was not expressed overtly in L1 but was expressed overtly in L2, learners would presume that such morphology did not have an overt form in L2. This study was the only study in the literature holding Turkish L2 learners of English as its participants. Because Turkish psych verbs had overt causative morphology, it was projected that a transitive form without morphology would be rejected, and periphrastic make causatives would be accepted instead by those learners. The results of the PIT revealed that Montrul's theories about psych verbs were confirmed: learners were wrong with zero causative psych verbs (e.g., "The lion frightened the hunter.") and favored make causatives (e.g., "The lion made the hunter frightened"). Furthermore, they were incorrect in rejecting an ungrammatical phrase with the *Experiencer* as the *Subject* (*The hunter frightened.), indicating that the Turkish learners acted in accordance with their L1's morphological pattern. Furthermore, despite the lack of an anticausative marker in Turkish, they were accurate in accepting adjectival passives (e.g., The hunter was frightened), implying that overt morphology was easier for Turkish learners of English than non-overt morphology. To summarize, L1 transfer was visible in L2 groups' psych verb outcomes.

In a series of four linked empirical research, Sato (2005, extended form Sato (2003, 2000)) compared the acquisition of psych predicates to the acquisition of alternating unaccusative verbs by Japanese English learners. The *Thematic Hierarchy* and Canonical Linking, both UG-based linguistic concepts, were implicated in L2 acquisition; sentences that violated these principles were troublesome for Japanese learners. The findings from the four tasks revealed that not only did Japanese learners had access to the *Thematic Hierarchy*, as White et al. (1999) claimed, but that they were also governed by a UG principle of the *Thematic Hierarchy*. Furthermore, non-canonical linking which connected the *Theme* to the subject with OE verbs, had been demonstrated to be challenging for Japanese students. It was taken as a proof that Japanese students were guided by a universal linguistic principle called canonical linking. Second, the findings

showed that overt morphology had an effect in L2; the morphological value of the L1 was plainly realized in Japanese learners' L2. The psych verbs without overt morphology (e.g., The news shocked John.) were not accepted by Japanese learners. Instead, they accepted them in the passive form, indicating that the Japanese learners employed passive morphology as a clue to link the *Theme* to the subject. Finally, it was discovered that UG principles and L1 influence had an interaction.

Zhang's (2007) goal was to define learners' internal representations of English psych verb knowledge and to develop a theoretical framework that could be used to guide empirical studies into the learning of English psych verbs. The aim of the research was to describe the nature of learners' knowledge of English psych verbs in terms of their argument structures, to determine the extent to which the learners' native language and animacy influence the acquisition process, and to consider the role of UG in the acquisition process, since psych verbs are difficult to learn for both L2 and L1 learners. The elementary participants' WPT and GJT results revealed that they treated psych verbs similarly to their L1 equivalents. The leading constructions for SE verbs were non-causative transitive (e.g., “John’s schoolmates admired his courage”) and passive (e.g., “John was admired by his schoolmates”), whereas the dominant constructions for OE verbs were passive (e.g., Henry was shocked by Jane’s smoking.) and Make (e.g., “The new hat made Mary interested.”), both canonical Chinese structures. Furthermore, they were much more correct on SE verbs than OE verbs in both tasks, implying that they had a learnability issue. This discovery was in line with the FT/FA Hypothesis' prediction that the starting state of L2 corresponds to the ultimate state of L1. Lower-level participants who refused to transfer *Experiencer* onto the object position encountered a learning challenge due to the causative structure of OE verbs. Also, lower participants' greater performance of analytical causatives (i.e,, make passive) over lexical causatives was found to be due to L1 transfer. In terms of the canonical causativization pattern in the interlanguage (IL), analytical causatives were the most common causativization forms in the elementary and intermediate groups, as evidenced by the fact that their production of lexical causatives outnumbered that of analytical causatives in the WPT, and their judgment of the two causativization types was not significantly different in the GJT. When it came to the knowledge of zero CAUS and its implication, the T/SM constraint, advanced participants had a comparable inclination to reject T/SM violations in OE verbs as native speakers did. Except for the elementary group, the T-test on AS and InAS in OE

verbs revealed a significant effect for all groups, implying that intermediate and advanced participants behaved similarly to native speakers in identifying animate from inanimate subjects. All of this showed that psych predicates' L2 final state was native-like.

Beyond the details of the mainstream and influential studies on psych verbs in the literature, summarizing the rest of the studies by comparing the ones above would be instructive and explanatory. Firstly, learners with different language (proficiency) levels were observed showing different patterns related to psych verbs (e.g., Chen, 1996; Hsin & Lin, 2006; Kang & Hou, 2013; Kim, 2015; Tash, 2017; White et al., 1999; White et al, 1998; Zhang, 2007). For example, as the level of English proficiency improved, fewer errors on the linking of OE verbs were made; or, learners of English as an L2 accepted or used different causative forms (e.g., lexical, analytical) based on their levels (e.g., Kang & Hou, 2013; Zhang, 2007). Secondly, animacy as a semantic cue was utilized while mapping of the thematic roles into correct syntactic positions (e.g., Dehghan & Jabbari, 2011; Kim, 2015; Tash, 2017; Zhang, 2007). Thirdly, L2 learners failed to identify the causative character of OE verbs. They whose L1 had overt causative morphology failed to accept English OE verbs with non-overt causative morphology (e.g., Chen, 1996; Juffs, 1996a; 1996b; Montrul, 2001c; Son & Kim, 2011; Thepsura, 1997). The studies revealed that L2 learners transferred morphological patterns of their L1s onto L2 languages (e.g., Montrul, 2001c; Zhang, 2007). Fourthly, learners generally knew that Experiencer was placed in a higher position, which was consistent with the *Thematic Hierarchy*. On this point, they had no difficulty with SE verbs because the linking was straightforward in that *Experiencer* placed in subject position and *Theme* in object. It was OE verbs that caused L2 learners a problem position (e.g., Son & Kim, 2011; White et al, 1999; Witoon, & Singhapreeecha, 2012).

Some studies suggested that L2 learners of English were governed by the principles of UG (i.e., UTAH and the *Thematic Hierarchy*; e.g., Chen, 1996; Sato, 2005; Zhang, 2007) but not by characteristics of the L1 grammar (i.e,, White et al., 1999). The research claimed that when L2 learners were not sure about the linking rules of verbs, they relied on UTAH and the *Thematic Hierarchy* (e.g., Chen, 1996; Hsin & Lin, 2006; White et al., 1999). Montrul (2000), on the other hand, proposed that UG knowledge and L1 performed at diverse ranks of linguistic representation: the effect of UG at the lexical-semantic level and that of L1 at the level of derivational morphology. L2 learners of English was unsuccessful to recognize non-overt causative morphology of OE verbs. Montrul's

(2001c) experimental study investigated the association between lexical semantics and derivational morphology, and she indicated that L1 effect had an important influence at morphological level. Her study revealed that L2 learners of English whose L1 had overt causative morphology, especially Turkish learners, was unsuccessful at approving English OE verbs with non-overt causative morphology. She concluded that Turkish learners of English wrongly assumed that English has a causative marker, influenced by their Ll.

In addition to the studies above, quite a few studies in the literature also focused on how to teach psych verbs. Tuz (1992), for example, endorsed the good impact of interpretation tasks in the teaching of psych verbs, as stated by Ellis (1995) and Guilloteaux (2001). Tuz (1992) conducted research on Japanese university students, focusing on word order using psych verbs as the desired structure. Both groups used a collection of photographs that depicted situations utilizing psychological verbs (like those in Activity 1 in Figure 5.1 in the Discussion (5.1) section below). The photographs were utilized as stimuli for sentence formation in the control group, while they were used to train comprehension of phrases containing psychological verbs in the experimental group. The findings of this study revealed that learners who received comprehension-based teaching (i.e., an interpretation task) outperformed those who received production-based training on a structural comprehension exam. In addition, in a production test, they outperformed them. The interpretation tasks utilized in this study allowed learners to build the type of information required to grasp and construct the goal structure to a considerably larger extent than the production tasks. Unfortunately, because the study did not include a follow-up test, it was unable to determine if the advantage had been sustained over time.

Guilloteaux's (2001) findings supported this viewpoint in several ways. The researcher looked at how two grammar training methodologies (input processing for comprehension and output processing for production) affected the intake of word order with transitive psychological verbs for 14 university students whose first language was Korean. While the comprehension-based method employed just English, the production-based approach used some Korean. The learners' results on two exams, a comprehension test and a written production test arranged in a compulsory setting, were used to reflect the measure of intake. The processing of input into short-term memory was termed as intake. The findings revealed no statistically significant difference in the intake amounts

of the two groups. The group that got specific production training, on the other hand, interpreted the verb *worry* more properly and employ the intended Theme-Subject (i.e., OE verbs) structure more frequently, based on an examination of comprehension mistakes and frequency of usage. Both teaching approaches seemed to be equally successful based on statistical analysis of learners' performance in comprehension and production tests. The analyses of comprehension errors and use in the production test, on the other hand, suggested that the explicit, production-oriented approach might lead to slightly better comprehension and more frequent and accurate use of the targeted structure in the short term, though the long-term effects were not measured.

SLA studies, in general, found that psych verbs had been demonstrated to cause problems for L2 learners. Learning problems caused by OE psych verbs were attributed to some specific properties of OE verbs. First, OE verbs violated the *Thematic Hierarchy*. According to the *Thematic Hierarchy*, the *Experiencer* was always higher than the Theme, as in SE verbs. However, in OE transitive sentences, *Experiencer* was not higher than the *Theme,* and this resulted as a challenge for to L2 learners. Although some studies (e.g., White et al., 1999; Sato, 2005) had directly investigated L2 acquisition of psych verbs by learners with various L1s, the Turkish learners' acquisition of OE and SE psych verbs was not investigated, except for one study conducted by Montrul (2001c). Thus, it has been necessary to examine Turkish learners of L2 English with a range of English proficiency. This was one of the objectives in the present thesis.

The second problem was regarding the effect of overt morphology in L1. OE verbs in English lack causative morphology unlike Turkish. Thus, those verb types without overt morphology were expected to be hard to acquire for Turkish learners of English. Chen (1996, Chinese), Juffs (1996b, Chinese), Montrul (2001c, Turkish), Sato (2005, Japanese) and Zhang (2007, Chinese), for example, showed that L2 learners transferred morphological patterns of their L1s onto L2 languages. It was reported by Montrul (2001c) that Turkish learners whose L1 had overt morphology had difficulty with English psych verbs which lacked overt morphology. Instead, they tended to accept sentence types with such constructions as make causatives, get passives and adjectival passives. However, this investigation was in the level of comprehension using a PJT. Thus, it was necessary to investigate whether Turkish learners whose L1 had overt morphology would have difficulty or preference varieties with non-overt morphology of psych verbs in the level of production, as well. Also, animacy had been identified as a semantic cue utilized

mapping of the thematic roles into correct syntactic positions in the literature. In broad terms, the acquisition of thematic roles under the dimensions of some UG principles (i.e., the *Thematic Hierarchy* and UTAH), the morphological differences between L1 and L2, and its probable interference in the acquisition process as well as the role of animacy have been adopted as the main constructs among the ones reviewed above in the current study.

3. METHODOLOGY

3.1. Introduction

In this chapter, an overview of the research design, specifically, selection of target psych verbs, data collection instruments, reliability and validity of data collection instruments, participants of the study, data collection and data analysis procedures were presented.

3.2. Selection of Target Psych Verbs

For the purpose of selecting target psych verbs, three different frequency lists of English words had been analyzed in order to guarantee that the psych verbs tested in the study were frequent in English language and therefore, they were supposed to be encountered by the L2 learners and/or needed to be learned. These three lists were:

1. The List of Top 5,000 Words in Corpus of Contemporary American English (COCA)
2. The New General Service List (NGSL)
3. The British National Corpus (BNC) Headword List

Among these three lists, the first one composed of the top 5,000 words in *COCA* which included 450 million-words and was the only big, well-balanced and up to date corpus of American English (AE) that was inspired by a variety of genres (e.g., spoken, fiction, newspapers, magazines, and academic writing). The free list contained the lemma and part of speech for the top 5,000 words in AE (see https://www.wordfrequency.info/free.asp to view and/or download the list).

Table 3.1. *Subsections of the Cambridge English Corpus (CEC)*

CEC Sub-Corpus	*Tokens*
Learner	38,219,480
Fiction	37,792,168
Journals	37,478,577
Magazines	37,329,846
Non-Fiction	35,443,408
Radio	28,882,717
Spoken	27,934,806
Documents	19,017,236
TV	11,515,296
Total	273,613,534

The second list analyzed was the *NGSL*, http://www.newgeneralservicelist.org) which was based on a 273 million-word portion that was carefully chosen (see Table 3.1 above) of the 2 billion word Cambridge English Corpus (CEC):

The third list was the *BNC Headword List* which contained only the headwords of the 25,000 word families, and the frequency levels based on the BNC word family lists was used for the sampling of the 14,000 level (Nation & Beglar, 2007) and 20,000 versions of the *Vocabulary Size Test* (VST, for information on the VST and the BNC headword list, visit the following website: https://www.victoria.ac.nz/lals/about/staff/paul-nation).

According to Nation (2012), initial studies employing the VST found that undergraduate non-native speakers of non-European origins who successfully adapted to studying at an English-speaking institution had a vocabulary size of 5,000-6,000 word families. PhD students who were not native English speakers had a vocabulary of roughly 9,000 words. Moreover, as stated above, the first 2000 words in the BNC headword lists were determined as high-frequent words. Therefore, the psych verbs included in these high-frequent word lists (i.e., 1000-2000) had been identified for the current study (see Appendix 4) assuming that L2 learners had most probably come up with these psych verbs throughout their language education processes and they were familiar with them.

In addition to the three lists above, the psych verbs were also examined in *the English Vocabulary Profile* (hereafter, EVP, Cambridge University Press, www.englishprofile.org) that revealed which words and phrases learners all around the globe know at each level of the CEFR, from A1 to C2. The EVP was developed as part of the English Profile Programme and is based on extensive study using the Cambridge Learner Corpus (CLC). This was an annual update of a collection of numerous examination scripts submitted by students from all around the world. The CLC established what learners could and could not achieve at each language level by combining reliable proof of usage from several different sources linked to general English, such as examinations, vocabulary lists, and classroom resources.

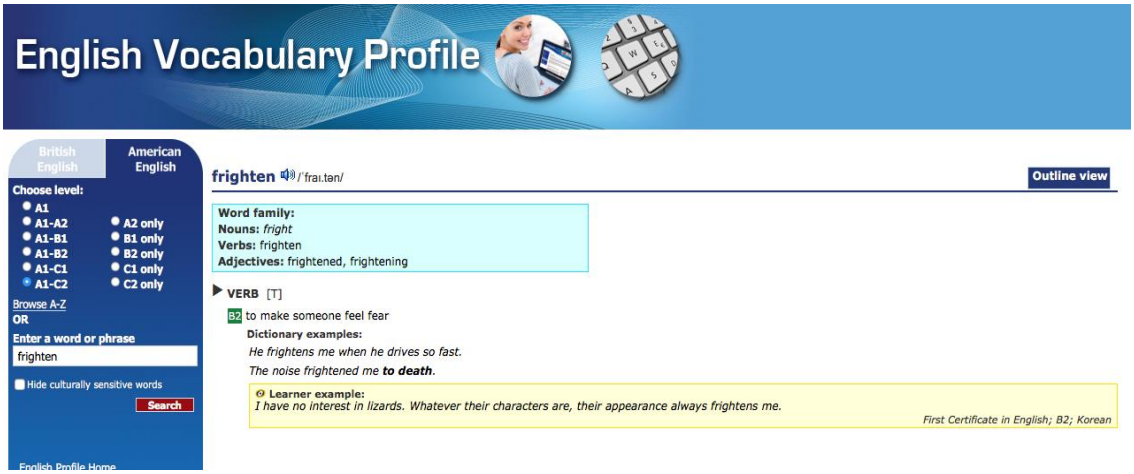


Figure 3.1. *The profile of the verb "frighten" in the EVP*

In Figure 3.1. above, we can see an example entry of the psych verb *frighten* in the EVP. What this profile showed us was that if a verb appears in the profile of a learner group with a specific language level (i.e., B2 in Figure 3.1), these learners of English in B2 level of the CEFR are expected to know the verb *frighten* in terms of its meaning and usage.

Table 3.2. *The psych verbs analyzed in the current study*

Experiencer Object Verbs (EO)					
Lemma / Word	Rank				
	COCA	NGSL	BNC	EVP	SLA
1) amuse*	-	-	2nd	B2	7
2) annoy*	-	-	2nd	B1	13
3) fascinate	-	2280	2nd	C1	4
4) frighten*	-	2249	1st	B2	22
5) please	4125	-	1st	B1	7
Experiencer Subject Verbs (ES)					
Lemma / Word	Rank				
	COCA	NGSL	BNC	EVP	SLA
1) enjoy	884	495	1st	A1-2/C2	8
2) hate	1535	-	1st	A2	10
3) admire	3305	2420	2nd	B1-2	7
4) fear	1670	-	1st	B2	11
5) like	208	46	1st	A1	9

COCA: Corpus of Contemporary American English
NGSL: New General Service List
BNC: British National Corpus Headword Lists
EVP: English Vocabulary Profile
SLA: Second Language Acquisition Studies
*Three verbs were tested in an SLA study on psych verbs with Turkish-speaking L2 learners (Montrul, 2001c).

As a last step, the psych verbs listed and reported by Levin (1993, pp. 189-191) had been searched among the above four different lists. As a result, a schema of psych verbs included in all or one of the lists above had been created. In addition to the lists, the psych verbs which were investigated by a total of twenty-nine SLA studies (in which English is the L2), were separately identified and checked whether they overlapped with the psych verbs in four frequency lists (i.e., the top 5,000 words in COCA, NGSL, BNC Headword List & EVP). As a result, a pool of psych verbs which appeared in one or all the above four lists and which had been examined in the previous SLA studies were created (see Appendix 4).

Altogether 10 psych verbs had been chosen for investigation: 5 OE verbs and 5 SE verbs since these verbs were included in the first two levels of the BNC Corpus Headword List assuming that L2 learners had most probably come up with these psych verbs throughout their language education processes and they were familiar with them. Except one (i.e., f*ascinate*), these verbs were also found to be used by the learners with the language levels of "A" and "B" as the *EVP* indicated (see Table 3.2 above). The OE psych verbs included *amuse, annoy, fascinate, frighten* and *please* while the SE psych verbs included *enjoy, hate, admire, fear* and *like*. The five OE and SE verbs were also selected because they had the potential to flip in terms of their meaning. Besides, five agentive (AG) verbs that were *hit, kick, lift, pull* and *push* were employed as controls or distracters throughout the tasks (i.e., PIT, GJT & VTT).

3.3. Data Collection Instruments

In this section, firstly, the Oxford Quick Placement Test (QPT) used to group the participants according to their language levels, the Vocabulary Translation Task (VTT) used to check their knowledge on the chosen psych verbs, and the Background Information Survey (BIS) used to get background information about the participants before the data collection will be presented. Then, data gathering instruments consisting of three main tasks that are the Written Production Task (WPT), Picture Identification Task (PIT) and Acceptability Judgement Task (AJT) will be explained.

3.3.1. The Oxford quick placement test (Alan, 2001)

The standardized English test, *QPT* (UCLES, 2010), was used to determine the English language levels of non-native English speakers, and it had been used in Turkish

context beforehand (e.g., Kırkıcı, 2012). In conjunction with the University of Cambridge Local Examinations Syndicate (UCLES), this was a pen and paper version of an electronic placement exam for English learners. It was basically designed to help institutions and teachers decide at which level of English the students were. The test contained 60 written multiple-choice questions with 3 and 4 answer choices with different levels from Beginner to Very Advanced (covering CEFR levels A1 to C2, see Table 3.3 below):

Table 3.3. *Test structure (Quick Placement Test, UCLES, 2010))*

Levels	*Number of Questions*	*Administration Time*	*Score Scale*
(A1) Beginner	-	-	0 - 17
(A2) Elementary	-	-	18 - 29
(B1) Lower Intermediate	-	-	30 - 39
(B2) Upper intermediate	-	-	40 - 47
(C1) Advanced	-	-	48 - 54
(C2) Very Advanced	-	-	55 - 60
TOTAL	60 questions	30 minutes	0 - 60

3.3.2. Background information survey (BIS)

The BIS was designed to question some personal information related to the participants such as year of study, section, gender and age in addition to their past and current experiences related to learning English as a foreign language (see Appendix 5 – Data Collection Booklet 1 for the complete survey).

3.3.3. Vocabulary translation task (VTT)

The VTT (see Table 3.4 below and Appendix 6 – Data Collection Booklet 2) was used to find out how the meaning of the target verbs were interpreted by the participants. The participants were asked to explain the meaning of the verbs by using such ways as defining, noting down their Turkish equivalents etc. Therefore, the researcher firstly aimed to guarantee that the meaning of the verbs known by the participants. Secondly, she would also have some information about how the meaning of the target verbs were interpreted by the participants and whether they were defined correctly or not.

Table 3.4. *Vocabulary Translation Task (VTT)*

1.	Enjoy :
2.	Frighten :
3.	Like :
4.	Lift :
5.	Amuse :
6.	Push :
7.	Fascinate :
8.	Hit :
9.	Annoy :
10.	Fear :
11.	Hate :
12.	Please :
13.	Admire :
14.	Pull :
15.	Kick :

3.3.4. Data gathering tasks

Among the main tasks of the study, the first task was a WPT which provided some prompts in order to make the participants produce target psych verbs in L2. The second task was a PIT to look at the argument structure of OE and SE verbs. The third task was a AJT which covered OE and SE psych verbs with a focus on six different structures. The related details of these tasks have been described in the fol1owing sections.

3.3.4.1. Written production task (WPT)

The WPT was designed to investigate the types of structures Turkish EFL learners would produce with OE and SE psych verbs while forming sentences according to a context. The context, a mini-paragraph, provided the participants with a background to compose the sentences. The lexical items were given in brackets with an instruction that the verb italicized must be included in the sentences that they formed (see Table 3.5 below and Appendix 6 – Data Collection Booklet 2 for the task and instruction).

Table 3.5. *Two example items of WPT for OE and SE verbs*

Little Jimmy was sick. His father took him to a hospital. The doctor gave Jimmy an injection. Jimmy ran away when he saw the needle.	Jimmy	hospital
	doctor	needle
	***frighten* (OE)**	
Gloria wanted to move to a new apartment. But she was very undecided because of her father. He was a very rigid person and had no tolerance.	Gloria	the idea of moving
	father	father's reaction
	***fear* (SE)**	

As illustrated in Table 3.5 (see Appendix 7 for the ten items in WPT), the verb in the brackets under each context did not appear in the context itself which was deliberately created in order to prompt the verb in such a way that it became natural to use the verb to restate, summarize or continue the story line in the context. Each verb token was represented by one situation, and so the task consisted of 10 items. Also, some words and phrases (animate and inanimate) were offered to the learners which they were free but not obliged to use while forming their sentences with psych verbs. What they had to include was the psych verbs. The participants were instructed that they could use any form of the verb while putting their sentences on the paper.

3.3.4.2. Acceptability judgement task (AJT)

In AJT, the participants had to judge whether a given sentence was acceptable in English or not. Six different structures were included in the task as seen in Table 3.6 (see Appendix 8 for all items in the AJT with the six structures matched):

Table 3.6. *Examples for the six structures in AJT*

Types	**OE Verbs - Acceptable**	
Type 1	***Transitive sentences with Experiencer Object (EO)***	
	Frighten	(1) The fire alarm frightened the hotel receptionist.
	OE Verbs - Unacceptable	
Type 2	***Transitive sentences with Experiencer Subject (ES)***	
	Frighten	(20) The airline passenger frightened the light turbulence.
	SE Verbs - Acceptable	
Type 3	***Transitive sentences with Experiencer Subject (ES)***	
	Fear	(16) The prison guardian feared the sudden noise.
	SE Verbs - Unacceptable	
Type 4	***Transitive sentences with Experiencer Object (OE)***	
	Fear	(29) The ghost story feared the little children.
	Agentive Verbs (Fillers/Distracters) - Acceptable	
Type 5	*Lift*	(2) The preschool teacher lifted the toy box.
	Agentive Verbs (Fillers/Distracters) - Unacceptable	
Type 6	*Lift*	(14) The broken lamp lifted the cleaning personnel.

Among the structures, Type 1, Type 2, Type 3 and Type 4 were included to determine whether the participants knew the transitive argument structure of OE and SE verbs. Namely, Type 1 and Type 2 investigated whether the respondents were aware that the Experiencer was placed in the object position for OE verbs while Type 3 and Type 4 tested whether the respondents knew that the Experiencer was placed in the subject

position for SE verbs. Also, these structures were included to determine whether the mapping of thematic roles (i.e., *Experiencer* and *Theme*) onto syntactic positions (i.e., *Subject* and *Object*) presented different degrees of difficulty for L2 learners. The accuracy levels of participants in these four constructions (i.e., Type 1 & Type 2 = OE verbs; Type 3 & Type 4 = SE verbs) were compared in order to observe whether any verb type was accepted more or less by Turkish EFL learners. Type 5 and Type 6 were on the other hand used as filler/distracters, and they included acceptable and unacceptable sentences composed with AG verbs (i.e., *lift, kick, hit, pull, push*).

There were altogether 30 sentences in AJT. Everyone was instructed to determine if each statement sounded acceptable or unacceptable in English. The statements were presented at random, and their replies were graded on a 5-point Likert scale ranging from -2 to 2 (see Appendix 6 – Data Collection Booklet 2 for AJT and the instruction).

3.3.4.3. Picture identification task (PIT)

ln PIT adapted from Chen (1996) which tested learners' knowledge of the mapping of arguments of OE and SE verbs onto syntactic positions, participants were required to judge whether a picture matched a sentence given underneath. There were four types of structures involved for OE and SE verbs (i.e., Type 1, 2, 3 & 4 in the Table 3.7 below) each with five tokens for TRUE choices and five tokens for FALSE choices. The coding and examples of these four types of structures were given in Table 3.7 and Figure 3.2 below.

Table 3.7. *Coding and examples of four structures in PIT*

Types	Coding	Examples
Type 1	OE +AS	The doctor frightened Mary. (True) Mary frightened the doctor. (False)
Type 2	OE -AS	The snowstorm frightened Mary. (True) Mary frightened the snowstorm. (False)
Type 3	SE +AO	Mary feared the doctor. (True) The doctor feared Mary. (False)
Type 4	SE -AO	Mary feared the snowstorm. (True) The snowstorm feared Mary. (False)
Type 5	Agentive - AC	Tom lifted Mary. (True) Mary lifted Tom. (False)
Type 6	Agentive - P	Tom was lifted by Mary. (True) Mary was lifted by Tom. (False)

+AS = animate subject, -AS = inanimate subject
+AO = animate object, -AO = Inanimate object
AC = Active, P = Passive

Type 1 and Type 2 were designed to examine whether animacy in the subject position would be interacting with the zero CAUS (i.e., lexical causativity without any morphology) in OE verbs. Type 3 and Type 4 were included to test whether the factor of animacy played a role with SE verbs which involved no zero CAUS. All types were also used to determine whether the EFL learners were successful with psych verbs while mapping the *Experiencer* and the *Theme* onto subject and object positions.

For each verb, the same sentence was used (with its inverted version) twice with one picture intended to trigger the answer TRUE and the other triggering the answer FALSE. Each SE verb alternatively took an Animate Object (AO) and an Inanimate Object (InAO); each OE verb had an alternation of taking an Animate Subject (AS) and an Inanimate Subject (InAS). There were altogether 40 stimuli for OE and SE verbs. Each page in the task booklet contained only one picture/sentence of the same kind (see Appendix 6 – Data Collection Booklet 2).

Table 3.8. *The item distribution of PIT*

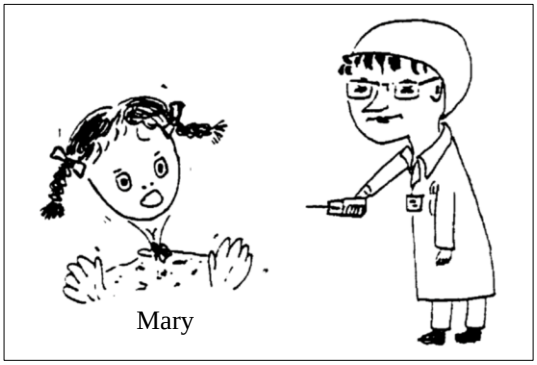
	Agentive Verbs (Controls & Distractors)			
	Active (10) / Type 5		**Passive (10) / Type 6**	
	True	**False**	**True**	**False**
lift	Item 1	Item 56	Item 42	Item 23
kick	Item 2	Item 50	Item 14	Item 28
hit	Item 46	Item 6	Item 18	Item 55
push	Item 49	Item 26	Item 7	Item 38
pull	Item 11	Item 16	Item 57	Item 44
	OE Psych Verbs (20)			
	+AS (10) / Type 1		**-AS (10) / Type 2**	
	True	**False**	**True**	**False**
frighten	Item 22	Item 43	Item 59	Item 48
annoy	Item 39	Item 5	Item 31	Item 52
amuse	Item 45	Item 36	Item 20	Item 8
please	Item 9	Item 51	Item 41	Item 19
fascinate	Item 58	Item 12	Item 25	Item 47
	SE Psych Verbs (20)			
	+AO (10) / Type 3		**- AO (10) / Type 4**	
	True	**False**	**True**	**False**
fear	Item 33	Item 3	Item 27	Item 10
hate	Item 17	Item 30	Item 37	Item 21
enjoy	Item 60	Item 13	Item 53	Item 32
like	Item 15	Item 35	Item 29	Item 54
admire	Item 24	Item 40	Item 34	Item 4

In addition to the forty items for OE and SE verbs, active and passive sentences with non-psych verbs in Type 5 and Type 6 were also included to determine whether subjects were able to correctly place an argument in the correct syntactic position with

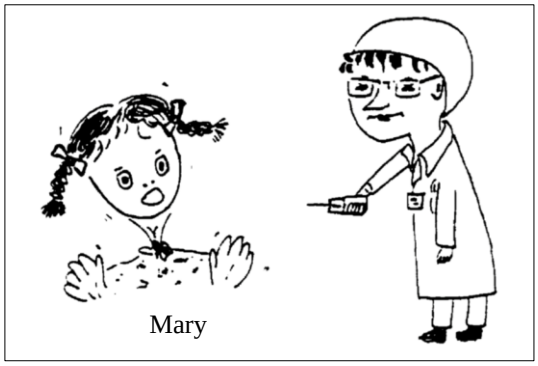
agentive verbs. In other words, the researcher intended to know first whether Turkish learners of English were capable of placing an *Agent* in the subject position for an active sentence. If the learners who did well with actives did not perform well with passives, these learners might have difficulty choosing an argument other than the *Agent* in subject position in general. Then these learners might also have some difficulty correctly mapping the arguments of psych verbs onto syntactic positions. In particular, they would not feel comfortable to have a non-*Experiencer* as the subject. If there were no passive structures used as controls in the task, we could not tell from the mistakes on OE verbs whether learners had a special problem with psych verbs in particular or had a general problem with choosing a *Theme* in the subject position.

In Table 3.8 above, it was possible to see the task items designed for each structure (Type I, II, III and IV) tested in the current study. Also, in Figure 3.2 below, the examples of the original items had been tabulated in a systematic order starting with OE verbs and followed by SE and AG verbs (see Appendix 9 for all items). The PIT included 4 items for each OE, SE and AG verb. For example, the OE verb, *frighten*, was tested via Item 22 and 43 which were the ones written with animate subjects; however, while Item 22 was True, Item 43 was false according to the context described in the picture. The same verb was also tested in Item 59 and 48 that were written with InAS nevertheless Item 48 was false as the picture described.

(T = True; F = False; A = Animate; IN = Inanimate; AC = Active; P = Passive)



22. The doctor frightened Mary. (T - A)

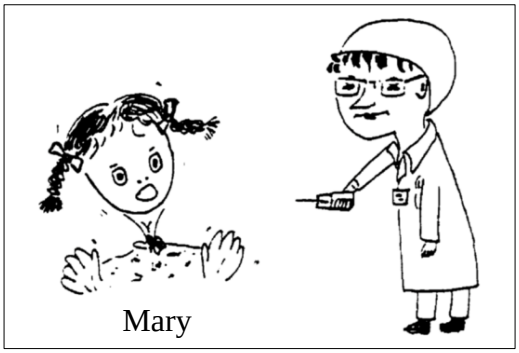


43. Mary frightened the doctor. (F - A)

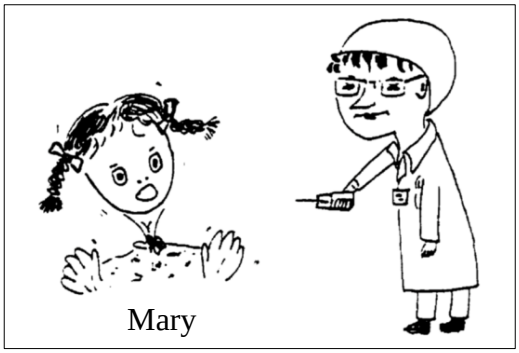
Figure 3.2. *The example items of PIT*

59. The snowstorm frightened Mary. (T - IN)

48. Mary frightened the snowstorm. (F - IN)



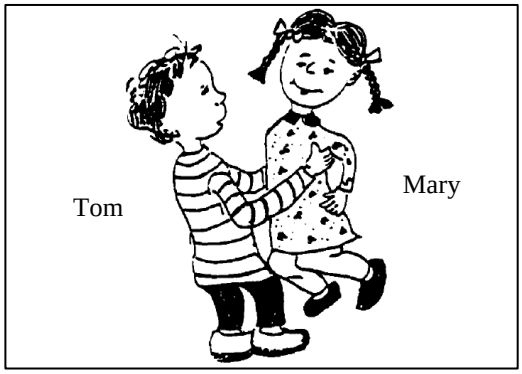
33. Mary feared the doctor. (T - A)



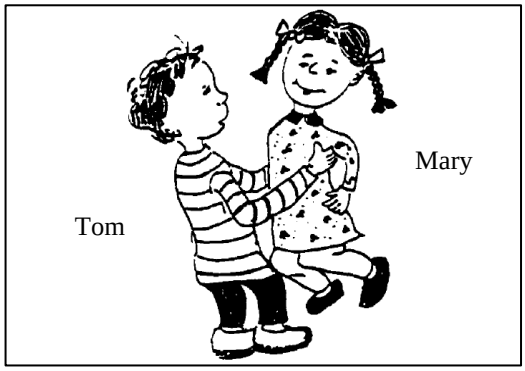
3. The doctor feared Mary. (F - A)

27. Mary feared the snowstorm. (T – IN)

10. The snowstorm feared Mary. (F - IN)

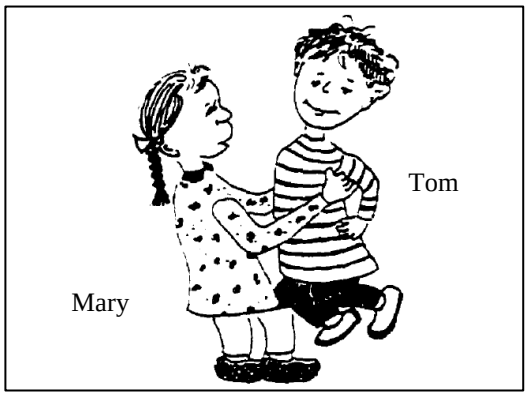


1. Tom lifted Mary. (T – AC)

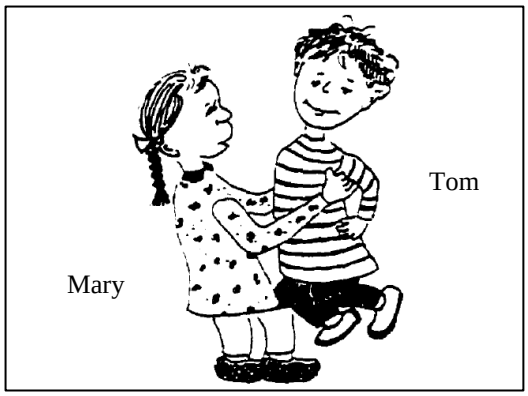


56. Mary lifted Tom. (F – AC)

Figure 3.2. *(Continue) The example items of PIT*



42. Tom was lifted by Mary. (T – P)



23. Mary was lifted by Tom. (F – P)

Figure 3.2. *(Continue) The example items of PIT*

3.4. Reliability and Validity of Data Collection Instruments

In order to guarantee the validity of BIS, WPT, AJT, PIT and VTT, they were shared for expert opinion after they were constructed. The WPT, AJT and PIT were also sent to and examined by two native speakers of AE and one expert of linguistics. The WPT were checked for its language by the native speakers of AE; whether it sounded natural or not. The AJT and PIT were examined by the native speakers in order to confirm that the items theorized to be acceptable and/or unacceptable were also accepted and/or rejected by the native speakers of AE. After making some necessary revisions on the items, the latest versions were designed and piloted. The BIS, WPT, AJT, PIT and VTT were also sent to four field experts in order to guarantee the face validity of the instruments, two of whom had a PhD in ELT, and two of whom had MA and PhD degree in Linguistics. Based on the feedback gathered from the experts, related changes and regulations were completed and the latest versions of the instruments were developed.

3.4.1. Pilot study

All the instruments were firstly piloted at the first half of the 2018-2019 Spring Semester. The data collection process for the pilot study was conducted in two phases. At the first phase, QPT and BIS were applied to a total of fifty Turkish-speaking L2 undergraduate learners of English. Most of the participants completed the first phase within approximately forty minutes. Following that, the other four tasks (i.e., WPT, AJT, PIT and VTT) were applied to a total of forty-seven learners. Most of the participants

completed the second phase within approximately thirty minutes (see Table 3.9 below for the details).

Table 3.9. *Data collection process followed during pilot study*

		Time	Number of Participants	Number of Sections Attended
Pilot Study	QPT BIS	February 18-22, 2019	50	4
	WPT AJT PIT VTT	April 1-5, 2019	47	

With the data from the pilot study, the reliability of QPT, AJT and PJT were measured and the individual items of them were evaluated in terms of their difficulty index. The reliability of QPT and PJT were measured through Kuder-Richardson 20 formula (KR-20). For AJT, the criterion used for evaluation was not dichotomous and included more than 2 scales. Therefore, the standard Cronbach alfa value was calculated for this task in order to evaluate the reliability and internal consistency of this task.

Table 3.10. *Reliability of QPT, AJT and PIT*

	KR20 reliability coefficient
Quick Placement Test (QPT)	.823
Acceptability Judgement Task (AJT)	.818 (Total) .721 (OE & SE) .634 (OE) .675 (SE) .780 (Agentive)
Picture Identification Task (PIT)	**.768 (Total)** **.775 (OE & SE verbs_40)** **.823 (OE_20)** **.700 (SE_20)** .585 (OE_AS+_10) .789 (OE_AS -_10) .456 (SE_AO+_10) .441 (SE_AO -_10) **.125 (Agentive verbs - 20)** -.104 (Agentive verbs_Active_10) .191 (Agentive verbs_Passive_10)
	Cronbach's Alfa
Acceptability Judgement Task (AJT)	**α = .892 (Total)** **α = .820 (OE & SE)** α = .742 (OE) α = .717 (SE) **α = .823 (Agentive)**

As seen in Table 3.10, KR-20 reliability coefficients for QPT was 0.823 which could be interpreted as a high reliability as it is greater than 0.80 (Salvucci, Walter, Conley, Fink, & Saba, 1997: 115). The KR-20 reliability coefficient for PIT was, on the other hand, 0.768 for the total task. The reliability coefficients for the sub-tasks ranged from 0.775, 0.823 and .700 for the OE & SE verbs together, OE verbs alone and SE verbs alone respectively.

In order to calculate the reliability coefficients of polytomously scored AJT task, Cronbach's alpha reliability coefficient as internal consistency estimate was used as summarized in Table 3.10. The Cronbach's alpha reliability coefficient for AJT was found to be 0.892 for the total task, while it was 0.820 for the OE & SE verbs together, 0.742 for OE verbs, 0.717 for SE verbs and 0.823 for agentive verbs, which were acceptable values. In addition to reliability values, item difficulty index (IDI) was also calculated which was the value representing the proportion of students who answered each item correctly. It might be anything between 0.0 and 1.0, with a larger number suggesting that a higher proportion of students answered correctly, making the item easier. The IDIs of QPT, AJT and PIT (see Appendix 10 for the number of participants responding correctly and item difficulty index for QPT, AJT and PIT). were reported with the number participants who responded to the target questions and items correctly.

3.5. Main Study

3.5.1. Participants

A total of 239 Turkish-speaking undergraduate EFL learners learning in the department of English Language Teaching (ELT) at a Turkish state university participated in the main study. Most of the participants were female (*n* = 146; 61.1%) while the rest were male (*n* = 93; 38.9%). Their average age was 20.8 ranging from 18 to 48. Most of the participants were young adults under the age of thirty.

As for the language level of the participants, the results of QPT (see Table 3.11 below) pointed that their levels ranged from A2 (*n* = 39; 16%), B1 (*n* = 80; 33%), B2 (*n* = 87; 37%), C1 (*n* = 27;11%) to C2 (*n* = 6; 3%). In addition to the language level, the table summarized that most of the participants were 1st year undergraduate learners (*n* = 86; 36%) while the others were 2nd year (*n* = 61; 25%), 4th year (*n* = 52) and 3rd year (*n* = 41; 17%) undergraduate learners.

Table 3.11. *Language levels and year of study of the participants*

Language Level	Number (*n*)	Percentage (%)	Year of Study	(*n*)	(%)
A2	39	16%	1st	18	46.15%
			2nd	12	30.76%
			3rd	--	--
			4th	9	23.07%
B1	80	33%	1st	28	35%
			2nd	19	23.75%
			3rd	15	18.75%
			4th	18	22.50%
B2	87	37%	1st	33	38.63%
			2nd	19	21.59%
			3rd	15	17.04%
			4th	20	22.72%
C1	27	11%	1st	4	14.81%
			2nd	8	29.62%
			3rd	10	37.03%
			4th	5	18.51%
C2	6	3%	1st	2	33.33%
			2nd	3	50%
			3rd	1	16.66%
			4th	--	--
TOTAL	239	100%	1st	86	36%
			2nd	61	25%
			3rd	41	17%
			4th	52	22%

In the table above, you may also see the proportion of the year of studies of the participants with a particular language level. At the time of data collection, the 1st year students had been learning in the department for almost one academic year because the data were collected in the second half of the Spring semester.

3.5.2. Data collection

The main study was conducted throughout three months of the Spring Semester (i.e., March, April and May, 2019) in two phases.

Table 3.12. *Data collection process followed during main study*

			Time	Number of Participants			Number of Sections Attended
Main Study	Phase 1	QPT BIS	March - April, 2019	292	72 (Eliminated)	239 (Total)	19
	Phase 2	WPT AJT PIT VTT	April - May, 2019	289			

As the Table 3.12 showed, a total of 311 learners participated in these two phases (292 in Phase 1 and 289 in Phase 2) however 72 of them were eliminated as the forms collected from the participants on the two phases did not match. Therefore, the data came from 239 Turkish-speaking undergraduate L2 learners of English attending different 1st, 2nd, 3rd and 4th year classes.

Firstly, QPT and BIS were applied to the participants in a classroom hour. For QPT, a total of thirty minutes were allocated for the participants which was followed by the completion of BIS. A week later, WPT, AJT, PIT and VTT were implemented to the learners in the stated order. The four tasks were organized in a booklet, and they were applied at the same classroom hour with no time limitation. The whole data collection process was performed by the researcher.

3.5.3. Data analysis

As for the data analysis, the raw scores for QPT and three tasks (i.e., AJT & PIT) were calculated using the criteria summarized in Table 3.13 and answer keys (see Appendix 11). The related descriptive statistics such as mean values, standard deviations (SD) and standard errors of mean (SEM) were reported. Also, a set of parametric tests (i.e., T-test, ANOVA, MANOVA) were conducted in order to answer the research questions.

Table 3.13. *Scoring in QPT and two tasks (AJT & PIT)*

QPT &Tasks	**Number of Questions/Items**					**Scoring**		
						Per Item	**Total Score**	
Quick Placement Test (QPT)	60					1	60	
Acceptability Judgement Task (AJT)	30	20 (OE & SE)				1 & 2	40	
		10 (OE)		10 (SE)			20	20
		10 (Filler)				--	--	
Picture Identification Task (PIT)	60	40 (OE & SE)				1	40	
		20 (OE)		20 (SE)			20	20
		10 (AS+)	10 (AS-)	10 (AO+)	10 (AO-)		10	10
		20 (Controller)					20	

1. What are accuracy levels of Turkish-speaking EFL learners at different language levels in comprehension of English psych-verbs?

    1.a. Is there a significant difference among achievement of comprehension task on different verb type (i.e., OE vs. SE verbs)?

    1.b. Is there a significant difference among achievement of comprehension tasks on animacy (animate vs. inanimate subjects/objects)?

On the lines above, the first research question of the study was stated. To answer the first research question, firstly, multivariate analysis of variance (MANOVA) test was performed to compare the means of the learners for these two verbs across five different language-levels in addition to the descriptive statistics. Secondly, one-way ANOVA tests were conducted as follow-ups in order to find out which verb accuracy score – the one for OE verbs or the one for SE verbs - the language level had an effect on (RQ1 - language level). Following that, a series of paired-sample T-test were conducted as a follow-up in order to investigate any difference between OE and SE verbs accuracy scores of the participants at the same language levels (RQ1a – verb type). A series of paired-sample T-test were also conducted as a follow-up in order to investigate any difference between the participants' accuracy scores of OE verb with AS and InAS as well as SE verbs with AO and InAO at the same language levels (RQ1b – animacy).

2. What are preferences of Turkish-speaking EFL learners in production of English psych-verbs?

    2.a. What is frequency of accurate/inaccurate uses of psych verbs in terms of

        2.a.i. verb type

        2.a.ii. animacy

        2.a.iii. language level?

    2.b. What are preferences of the learners in the accurate/inaccurate uses of psych verbs?

As for WPT, the participants' responses were evaluated qualitatively, and the distribution of those responses in terms of accuracy/inaccuracy and different uses (e.g., *Verb, Adjective, Adverb, Noun, No Use*) were tabulated showing the frequencies and

percentages. After the coding the data from WPT as accurate and inaccurate, a native speaker of AE checked the coding of the responses and approved their (in)accuracy.

In this chapter, selection of target psych verbs, data collection instruments, reliability and validity of data collection instruments, participants of the study as well as data collection and data analysis procedures were explained. In the following chapter, the results of the study will be reported.

4. RESULTS

The fourth chapter reported the results of the study under two main headings (i.e., 4.1 & 4.2). In the first heading, the accuracy levels of Turkish-Speaking EFL learners in comprehension of English psych-verbs were examined and outlined. Secondly, the preferences of Turkish-speaking EFL learners in the production of English psych verbs were expressed in 4.2.

4.1. Accuracy Levels of Turkish-Speaking EFL Learners in Comprehension of English Psych-Verbs

The first research question of the current study examined the accuracy levels of Turkish-speaking EFL learners in comprehension of English psych-verbs. With a focus on comprehension (RQ1a), this section reported the accuracy levels of the participants on two tasks that were PIT and AJT. The first task designed to test learners' comprehension of psych verbs was the PIT which focused on the AG verbs and two types of psych verbs (i.e., OE and SE verbs). The second task evaluating participants' accuracy levels of psych verbs in terms of comprehension was the AJT, and it concentrated on SE and OE verbs while AG verbs were included as fillers in the task.

Firstly, the results for the AG verbs in the PIT were reported below. The active and passive constructions with nonpsych AG verbs were included in the PIT to be sure that participants were able to rightly locate an argument in the proper syntactic position (see the title 3.3.4.3 in the Methodology chapter for the details).

Table 4.1. *PIT – AG verbs - general descriptive statistics across language levels*

	Language Level	*n*	Accuracy Score				
		(239)	Min.	Max.	*M*	*SD*	*SEM*
Agentive Verbs (Active)	A2	39	8	10	9.46	0.76	0.12
	B1	80	8	10	9.69	0.52	0.06
	B2	87	6	10	9.80	0.59	0.06
	C1	27	7	10	9.78	0.64	0.12
	C2	6	10	10	10	0	0
	All participants	239	6	10	9.71	0.60	0.04
Agentive Verbs (Passive)	A2	39	6	10	9	1.43	0.23
	B1	80	7	10	9.72	0.66	0.07
	B2	87	6	10	9.71	0.68	0.07
	C1	27	9	10	9.77	0.42	0.08
	C2	6	9	10	9.83	0.41	0.17
	All participants	239	6	10	9.61	0.86	0.06

Maximum score = 20

Table 4.1 above indicated the descriptive statistics related to the AG verbs in the PIT. It showed that the participants across five different language levels were successful with the AG verbs in mapping the *Agent* and *Theme* onto subject and object positions in both *active* (*M*(A2) = 9.46; *M*(B1) = 9.69; *M*(B2) = 9.80; *M*(C1) = 9.78; *M*(C2) = 10) and *passive* structures (*M*(A2) = 9; *M*(B1) = 9.72; *M*(B2) = 9.71; *M*(C1) = 9.77; *M*(C2) = 9.83). The minimum and maximum values for mean scores also verified this success because the scores for active and passive structures ranged from 6 points to 10 points which meant that participants responded to at least 60% of items correctly. This ratio showed that even the most inaccurate participants were able to respond correctly to the more than half of the items included in PIT for active and passive structures of AG verbs.

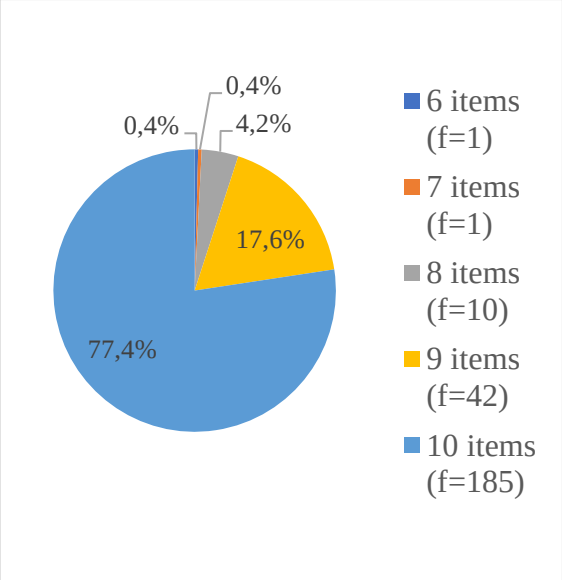


Figure 4.1. *AG verbs – PIT: the scores for active structure: frequency and percentage*

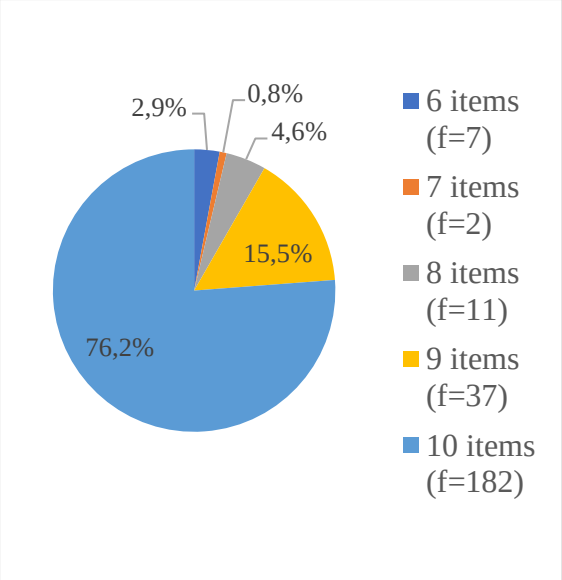


Figure 4.2. *AG verbs: PIT – the scores for passive structure: frequency and percentage*

In addition to Table 4.1, Figure 4.1 above indicated that 77.4% (*f* = 185) of the participants correctly responded to all items in the PIT for active structures with AG verbs, 17.6% (*f* = 42) of them correctly responded to 9 items, 4.2% (*f* = 10) of them gave correct answers to 8 items, 0.4% (*f* = 1) to 7 items, and 0.4% (*f* = 1) to 6 items. In parallel, 76.2% (*f* = 182) of the participants correctly responded to all items for passive structures, while 15.5% (*f* = 37) gave correct answers to 9 items, 4.6% (*f* = 11) to 8 items, 2.9% to 6 items (*f* = 7), and 0.8% (*f* = 2) to 7 items with the frequencies and percentages demonstrated in Figure 4.2. Therefore, we could conclude that the Turkish L2 learners of

English in the study were capable of placing the *Agent* in the subject position for an active sentence and placing the *Theme* in the subject position for a passive sentence.

4.1.1. Accuracy levels in terms of verb type & language level

In this sub-section, the accuracy levels of Turkish-speaking EFL learners in comprehension of English psych-verbs in terms of *language level* and *verb type* (i.e., RQ1a) were intended to be examined. For this purpose, the accuracy levels of the participants in comprehension of OE and SE psych verbs in the PIT and AJT were investigated. Initially, the results based on the PIT were reported, which was followed by the ones of the AJT.

4.1.1.1. Accuracy levels in terms of verb type & language level: the results of PIT

The results for the accuracy levels of OE and SE psych verbs in the PIT were firstly analyzed through descriptive statistics including minimum (Min.), maximum (Max.) and mean (*M*) values as well standard deviations (*SD*) and standard error of means (*SEM*) as detailed in Table 4.2 below.

Table 4.2. *PIT – OE and SE verbs: general descriptive statistics across language levels*

	Language Level	*n* (239)	Accuracy Score				
			Min.	Max.	*M*	*SD*	*SEM*
OE Verbs	A2	39	1	19	10.77	4.97	0.80
	B1	80	1	20	15.84	4.24	0.47
	B2	87	9	20	18.29	2.29	0.25
	C1	27	13	20	19.26	1.48	0.29
	C2	6	19	20	19.33	0.52	0.21
	All participants	239	1	20	16.38	4.45	0.29
SE Verbs	A2	39	11	19	15.54	2.59	0.42
	B1	80	8	20	15.05	2.65	0.30
	B2	87	9	20	16.26	2.57	0.28
	C1	27	8	20	17.78	2.68	0.52
	C2	6	18	20	19.50	0.84	0.34
	All participants	239	8	20	15.99	2.76	0.18

Maximum score = 20

The descriptive statistics (RQ1a – verb type & language level) mainly showed that the accuracy levels of the participants for OE verbs (*M* = 16.38; *SD* = 4.45) were slightly higher than the accuracy levels for SE verbs (*M* = 15.99; *SD* = 2.76) with all language levels as a total. This result indicated that the participants, as a whole, were more accurate

with OE verbs although the difference was very low (i.e., 0.39). Table 4.2 also revealed that as language level of L2 learners increased, their scores for OE verbs also got higher. The same result was also correct for SE verbs, except for A2 and B1 levels, because SE verb accuracy scores of A2 level learners (*M* = 15.54; *SD* = 2.59) were higher than B1 level learners (*M* = 15.05; *SD* = 2.65).

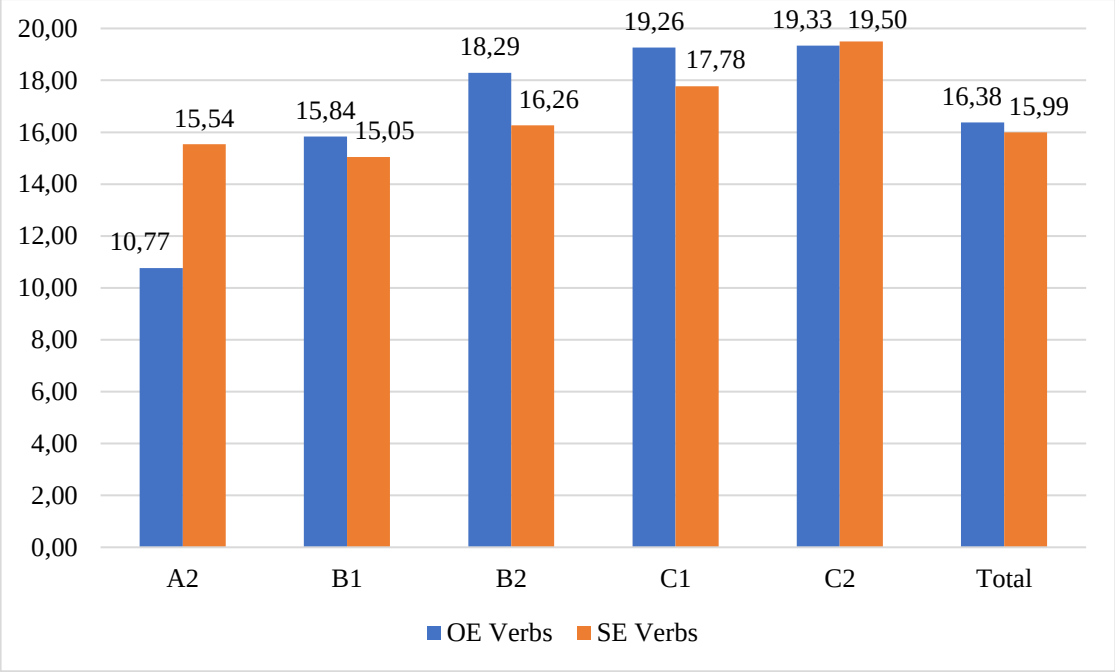


Figure 4.3. *PIT: accuracy score means for OE and SE verbs across language levels*

When accuracy scores for OE and SE verbs in the PIT were compared across language levels (RQ1a – verb type & language level), Figure 4.3. demonstrated that B1, B2 and C2 level leaners scored more accurately for OE verbs, while A2 and C2 level learners gathered more accurate scores for SE verbs. Especially for A2 level, the difference between OE (*M* = 10.77; *SD* = 4.97) and SE (*M* = 15.54; *SD* = 2.59) verb accuracy scores was about to reach at five points, which can be accepted as a worthwhile difference compared to the ones of the other levels.

4.1.1.1.1. The results of PIT: language level

In addition to the descriptive statistics, in order to find out whether there were statistically significant differences among learners with five different language levels in terms of OE and SE verb accuracy scores (RQ1 - language level), firstly, multivariate

analysis of variance (MANOVA) test was performed to compare the means of the learners for these two verbs across five different language-levels. The results of the MANOVA test indicated that there was statistically significant difference among the accuracy scores of the learners with different language levels in terms of OE and SE verb accuracy scores (Pillai's Trace = .53, $F(8,468) = 21.19$, $p < .001$; $\eta^2 = .27$). This meant that language level had an effect on OE and SE verb accuracy scores, and either OE or SE verb accuracy scores or both changed in terms of different language levels.

Table 4.3. *PIT: one-way ANOVA test results for OE and SE verbs*

Source	DV	Sum of Squares	*df*	Mean Square	*F*	*p*	partial η^2
Language Level	PIT_OE Verbs	1843.96	4	460.99	37.66	.000***	.39
	PIT_SE Verbs	245.41	4	61.35	9.14	.000***	.135
Error	PIT_OE Verbs	2864.15	234				
	PIT_SE Verbs	1570.58	234				

* p < .05, ** p < .01, *** p < .001

Secondly, one-way ANOVA tests were conducted as follow-ups in order to find out which verb accuracy score – the one for OE verbs or the one for SE verbs - the language level had an effect on (RQ1 - language level). The results (see Table 4.3 above) indicated that language level had an effect on both OE and SE verb accuracy scores, which meant that these two scores were significantly different for learners with different language levels, $F(4, 234) = 37.66$, $p < .001$, $\eta^2 = .39$) and $F(4, 234) = 9.14$, $p < .001$, $\eta^2 = .13$), respectively.

Thirdly, we followed up the analysis with post-hoc tests to investigate the differences between five language levels (i.e., A2, B1, B2, C1, and C2). Therefore, we aimed to explore the data for any between-group differences between means that may exist. In this case, we carried out Bonferroni Post Hoc tests, which controlled for Type I errors. The tests (Table 4.4.) revealed that accuracy scores of A2 level for OE verbs in the PIT were statistically significantly lower than all other four levels (*ps* < .001). The same scores of B1 level learners were higher than A2 level and lower than B2 and C1 level learners (*ps* < .001). The scores of B2, C1 and C2 level learners were statistically significantly higher than A2 and B1 levels learners (*ps* < .001). All in all, these values noted that the learners in four language levels showed higher accuracy with OE psych

verbs than A2 level learners while the B1 level learners demonstrated lower accuracy with OE psych verbs than B2 and C1 level learners at a significant level.

Table 4.4. *PIT: post hoc test (Bonferroni) results for OE and SE verbs across five language levels*

Dependent Variable	QPT Level	QPT Level	Mean Difference	*SE*	*p*	*95% CI for Mean Difference*	
PIT_OE	A2	B1	-5.07***	0.68	.000	-7.01	-3.13
		B2	-7.52***	0.67	.000	-9.43	-5.61
		C1	-8.49***	0.88	.000	-10.97	-6.01
		C2	-8.56***	1.53	.000	-12.91	-4.22
	B1	A2	5.07***	0.68	.000	3.13	7.01
		B2	-2.45***	0.54	.000	-3.99	-0.91
		C1	-3.42***	0.78	.000	-5.63	-1.22
		C2	-3.50	1.48	.191	-7.69	0.70
	B2	A2	7.52***	0.67	.000	5.61	9.43
		B1	2.45***	0.54	.000	0.91	3.99
		C1	-0.97	0.77	1.000	-3.16	1.21
		C2	-1.05	1.48	1.000	-5.23	3.14
	C1	A2	8.49***	0.88	.000	6.01	10.97
		B1	3.42***	0.78	.000	1.22	5.63
		B2	0.97	0.77	1.000	-1.21	3.16
		C2	-0.07	1.58	1.000	-4.55	4.40
	C2	A2	8.56***	1.53	.000	4.22	12.91
		B1	3.50	1.48	.191	-0.70	7.69
		B2	1.05	1.48	1.000	-3.14	5.23
		C1	0.07	1.58	1.000	-4.40	4.55
PIT_SE	A2	B1	0.49	0.51	1.000	-0.95	1.92
		B2	-0.73	0.50	1.000	-2.14	0.69
		C1	-2.24**	0.65	.007	-4.08	-0.40
		C2	-3.96**	1.14	.006	-7.18	-0.74
	B1	A2	-0.49	0.51	1.000	-1.92	0.95
		B2	-1.21*	0.40	.028	-2.35	-0.08
		C1	-2.73***	0.58	.000	-4.36	-1.09
		C2	-4.45**	1.10	.001	-7.56	-1.34
	B2	A2	0.73	0.50	1.000	-0.69	2.14
		B1	1.21*	0.40	.028	0.08	2.35
		C1	-1.51	0.57	.086	-3.13	0.10
		C2	-3.24*	1.09	.034	-6.34	-0.14
	C1	A2	2.24**	0.65	.007	0.40	4.08
		B1	2.73***	0.58	.000	1.09	4.36
		B2	1.51	0.57	.086	-0.10	3.13
		C2	-1.72	1.17	1.000	-5.04	1.59
	C2	A2	3.96**	1.14	.006	0.74	7.18
		B1	4.45***	1.10	.001	1.34	7.56
		B2	3.24*	1.09	.034	0.14	6.34
		C1	1.72	1.17	1.000	-1.59	5.04

* $p < .05$, ** $p < .01$, *** $p \leq .001$

As for the SE verb accuracy scores in the PIT, A2 level learners scored statistically significantly lower than C1 (p = .007) and C2 (p = .006) levels while B1 level learners scored lower than B2 (p = .028), C1 and C2 levels (ps < .001). B2 level learners scored higher than B1 (p = .028) and lower than C2 level (p = .034) learners. While C1 level learners scored higher than A2 (p = .007) and B1 levels (p < .001), C2 level learners scored higher than A2 (p = .006), B1 (p = .001) and B2 (p = .034) level learners.

4.1.1.1.2. The results of PIT: verb type

The results reported in the lines above indicated that there was a significant difference for OE and SE verb accuracy scores in the PIT when participants were at different language levels. In addition to them, a series of paired-sample t-test were also conducted as a follow-up in order to investigate any difference between OE and SE verbs accuracy scores of the participants at the same language levels (RQ1a – verb type).

Table 4.5. *PIT: descriptive statistics and paired sample T-test results for OE and SE verbs*

Language Level	OE		SE		*95% CI for Mean Difference*	*r*	*t*	*df*	*p*
	M	*SD*	*M*	*SD*					
A2	10.77	4.97	15.54	2.59	-6.90, -2.64	-.46***	-4.527***	38	.000
B1	15.84	4.24	15.05	2.65	-0.48, 2.06	-.33***	1.236	79	.220
B2	18.29	2.29	16.26	2.57	1.32, 2.72	.10	5.757***	86	.000
C1	19.26	1.48	17.78	2.68	0.45, 2.51	.33	2.953***	26	.007
C2	19.33	0.52	19.5	0.52	-0.96, 0.62	.46	-0.542	5	.611

* p < .05, ** p < .01, *** p < .001

The results of the paired-sample t-tests (Table 4.5) indicated that there was a statistically significant difference (t(38) : -4.527, p = .000) between the A2 level participants' accuracy scores for OE (M = 10.77; SD = 4.97) and SE verbs (M = 15.54; 2.59), which showed that the participants in A2 level were more accurate with SE verbs. The similar difference was also valid for B2 and C1 levels, but to the other way round since B2 (t(86): 5.757, p = .000) and C1 (t(26): 2.953, p = .007) levels were more accurate with OE verbs (B2 (M = 18.29; SD = 2.29); C1 (M = 19.26; SD = 1.48)) than SE verbs (B2 (M = 16.26; SD = 1.48); C1 (M = 17.78; SD = 2.68)).

4.1.1.2. Accuracy levels in terms of verb type & language level: the results of AJT

The second task developed to investigate the acquisition of English OE and SE psych-verbs in comprehension level was the AJT. The results for the accuracy levels of OE and SE psych verbs in the AJT were firstly analyzed through descriptive statistics including minimum (Min.), maximum (Max.) and mean (*M*) values as well standard deviations (*SD*) and standard error of means (*SEM*) as detailed in Table 4.6 below.

Table 4.6. *AJT: general descriptive statistics for OE and SE verbs across language levels*

	Language Level	*n (239)*	Min.	Max.	*M*	*SD*	*SEM*
OE Verbs	A2	39	2	13	6.307	3.285	0.526
	B1	80	1	19	10.212	4.342	0.485
	B2	87	5	19	13.574	3.617	0.387
	C1	27	7	19	15.109	2.722	0.523
	C2	6	11	19	16.500	2.810	1.147
	All participants	239	1	19	11.510	4.726	0.305
SE Verbs	A2	39	6	18	13.384	3.696	0.591
	B1	80	3	20	13.512	3.561	0.398
	B2	87	8	20	14.482	3.011	0.322
	C1	27	10	20	16.957	2.393	0.460
	C2	6	11	20	16.166	3.250	1.327
	All participants	239	3	20	14.300	3.429	0.221

Maximum score: 20

The descriptive statistics (RQ1a – verb type & language level) presented above mainly showed that the accuracy levels of the participants for SE verbs (*M* = 14.30; *SD* = 3.43) were slightly higher than the accuracy levels for OE verbs (*M* = 11.51; *SD* = 4.73) with all language levels as a total. This result indicated that the participants, as a whole, were more accurate with SE verbs although the difference was quite low (i.e., 2.79). Table 4.6 also revealed that as the language level of L2 learners increased, their scores for OE and SE verbs also raised without any exception.

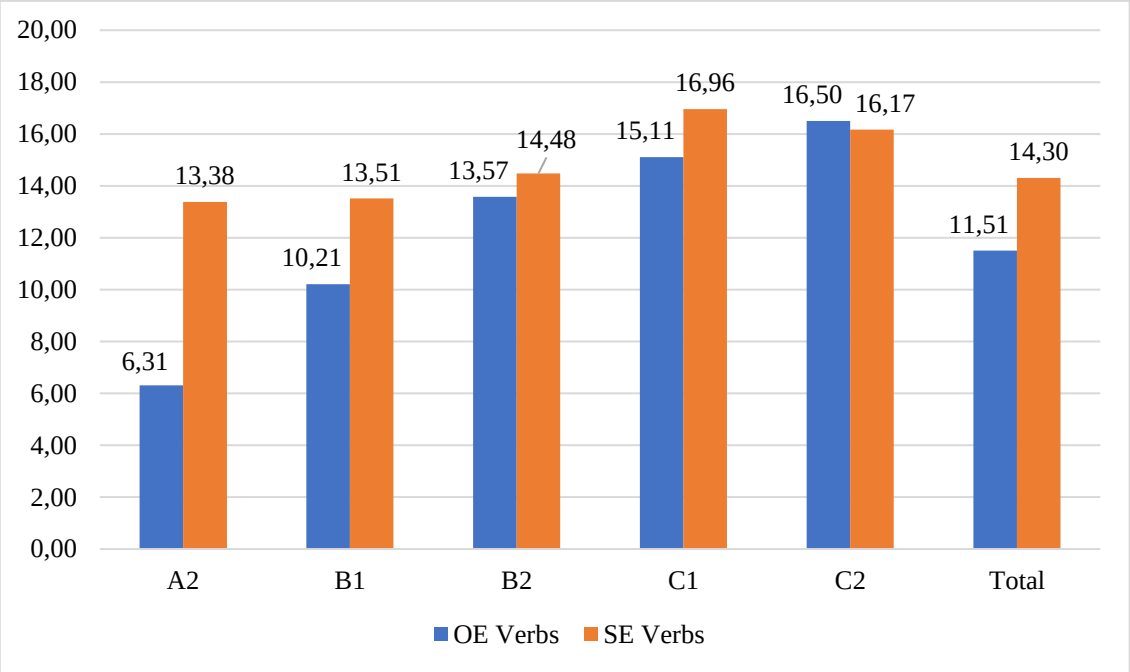


Figure 4.4. *AJT: accuracy score means for OE and SE verbs across language levels*

When accuracy scores for OE and SE verbs in the AJT were compared across language levels (RQ1a – verb type & language level), Figure 4.4 demonstrated that A2, B1, B2 and C1 level learners scored more accurately for SE verbs while C2 level learners gathered slightly more accurate scores for OE verbs. Also, the figure indicated that as the language level increased, the difference between OE and SE verb accuracy scores was inclined to ascend for the first three language levels (i.e., A2, B1, B2), which again increased for C1 level learners, but each accuracy level of OE and SE verbs were also higher than the ones of the first three levels.

4.1.1.2.1. The results of AJT: language level

In addition to the descriptive statistics, in order to find out whether there were statistically significant differences among the learners with five different language levels in terms of their OE and SE verb accuracy scores in the AJT, firstly, multivariate analysis of variance (MANOVA) test was performed to compare the means of the learners from these two tasks across five different language-levels (RQ1- language level). The results of the MANOVA test indicated that there was statistically significant difference between OE and SE verb accuracy scores from the AJT in terms of different language levels (Pillai's Trace = .440, $F(8,468) = 16,50$, $p < .001$; $\eta^2 = .22$). This means that language

level had an effect on the OE and SE verb accuracy scores, and either OE verb accuracy scores or SE verb accuracy scores or both changed in terms of different language levels.

Table 4.7. *AJT: one-way ANOVA test results for OE and SE verbs*

Source	Dependent Variable	Sum of Squares	*df*	Mean Square	*F*	*p*	partial η^2
Language Level	AJT_OE Verbs	2060.31	4	515.08	37	.000***	.39
	AJT_SE Verbs	296.72	4	74.18	6.94	.000***	.11
Error	AJT_OE Verbs	3257.14	234	13.92			
	AJT_SE Verbs	2502.75	234	10.70			

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

Secondly, one-way ANOVA tests were conducted as follow-ups in order to find out on which verb accuracy score - OE verb accuracy score, SE verb accuracy score or both - the language level had an effect (RQ1 – language level). The results (see Table 4.7) indicated that language level had an effect on both OE verb accuracy scores ($F(4, 234) = 3$, $p < .001$, $\eta^2 = .39$) and SE verb accuracy scores ($F(4, 234) = 6.94$, $p < .001$, $\eta^2 = .11$), which meant that these two scores were significantly different for learners with different language levels.

Thirdly, the analysis was followed up with post-hoc tests to investigate the differences between five language levels (i.e., A2, B1, B2, C1, and C2) to explore the data for any between group differences that might exist between means. In that case, we carried out Bonferroni Post Hoc tests using SPSS, which controlled for Type I errors. The tests (Table 4.8 below) revealed that OE verb accuracy scores of A2 level learners in the AJT were statistically significantly lower than all other levels (i.e., B1, B2, C1, C2 (*ps* < .001)). The scores of B1 level learners were higher than A2 ($p < .001$) and lower than all other levels (i.e., B2 ($p < .001$), C1 ($p < .001$), and C2 ($p = .001$)). The scores of B2, on the other hand, were higher than A2 and B1 levels (*ps* < .001). C1 level learners statistically significantly scored higher than A2 and B1 (*ps* < .001) levels. The same is also valid for C2 level learners who scored higher than A2 and B1 (*ps* < .001). As for the SE verb accuracy scores in the AJT, Post Hoc Tests (Bonferroni) revealed that Level A2 scored statistically significantly lower than only C1 level ($p < .001$). B1 and B2 level learners (($p < .001$) and ($p = .007$) respectively) scored lower than C1 level learners.

While B2 level learners scored higher than A2 and B2 levels, C1 level learners scored higher than A2, B1 (*ps* < .001) and B2 level learners (*p* = .007).

Table 4.8. *AJT: post hoc test (Bonferroni) results for OE and SE verbs across five language levels*

Dependent Variable	QPT Level	QPT Level	Mean Difference	*SE*	*p*	*95% CI for Mean Difference*	
AJT_OE Verbs	A2	B1	-3.91***	.73	.000	-5.97	-1.84
		B2	-7.27***	.72	.000	-9.30	-5.23
		C1	-8.80***	.93	.000	-11.45	-6.16
		C2	-10.19***	1.64	.000	-14.83	-5.56
	B1	A2	3.91***	.73	.000	1.84	5.97
		B2	-3.36***	.58	.000	-5.00	-1.72
		C1	-4.90***	.83	.000	-7.25	-2.54
		C2	-6.29**	1.58	.001	-10.76	-1.81
	B2	A2	7.27***	.72	.000	5.23	9.30
		B1	3.36***	.58	.000	1.72	5.00
		C1	-1.54	.82	.631	-3.86	.79
		C2	-2.93	1.58	645	-7.39	1.54
	C1	A2	8.80***	.93	.000	6.16	11.45
		B1	4.90***	.83	.000	2.54	7.25
		B2	1.54	.82	.631	-.79	3.86
		C2	-1.39	1.68	1.000	-6.16	3.38
	C2	A2	10.19***	1.64	.000	5.56	14.83
		B1	6.29***	1.58	.000	1.81	10.76
		B2	2.93	1.58	.645	-1.54	7.39
		C1	1.39	1.68	1.000	-3.38	6.16
AJT_SE Verbs	A2	B1	-.13	.64	1.000	-1.94	1.68
		B2	-1.10	.63	.827	-2.88	.69
		C1	-3.57***	.82	.000	-5.89	-1.25
		C2	-2.78	1.43	.536	-6.85	1.28
	B1	A2	.13	.64	1.000	-1.68	1.94
		B2	-.97	.51	.567	-2.41	.47
		C1	-3.45***	.73	.000	-5.51	-1.38
		C2	-2.65	1.38	.564	-6.58	1.27
	B2	A2	1.10	.63	.827	-.69	2.88
		B1	.97	.51	.567	-.47	2.41
		C1	-2.47**	.72	.007	-4.52	-.43
		C2	-1.68	1.38	1.000	-5.60	2.23
	C1	A2	3.57***	.82	.000	1.25	5.89
		B1	3.45***	.73	.000	1.38	5.51
		B2	2.47**	.72	.007	.43	4.52
		C2	.79	1.48	1.000	-3.39	4.97
	C2	A2	2.78	1.43	.536	-1.28	6.85
		B1	2.65	1.38	.564	-1.27	6.58
		B2	1.68	1.38	1.000	-2.23	5.60
		C1	-.79	1.48	1.000	-4.97	3.39

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

4.1.1.2.2. The results of AJT: verb type

The results reported in the lines above indicated that there was a significant difference between accuracy scores of OE and SE verbs in the AJT when participants were at different language levels. A series of paired-sample t-test were also conducted as a follow-up to investigate for any difference between OE and SE verb accuracy scores of the participants at the same language levels (RQ1a – verb type).

Table 4.9. *AJT: descriptive statistics and paired sample T-test results for OE and SE verbs*

Language Level	OE		SE		*95% CI for Mean Difference*	*r*	*t*	*df*	*p*
	M	*SD*	*M*	*SD*					
A2	6.31	3.29	13.38	3.70	-8.78, -5.37	-.13	-8.397***	38	.000
B1	10.21	4.34	13.51	3.56	-4.42, -2.18	.19	-5.839***	79	.000
B2	13.57	3.62	14.48	3.01	-1.83, -1.96	.16	-1.959	86	.053
C1	15.11	2.72	16.96	2.39	-3.06, -0.63	.28	-3.125**	26	.004
C2	16.5	2.81	16.17	3.25	-2.12, 2.79	.71	.349	5	.741

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

The results of the paired-sample t-tests (Table 4.9) indicated that there was a statistically significant difference (*t*(38) : -8.397, *p* = .000) between the A2 level participants' accuracy scores for OE (*M* = 6.31; *SD* = 3.29) and SE verbs (*M* = 13.38; *SD* = 3.70) in the AJT, which showed that the participants in A2 level were more accurate with SE verbs. The similar statistically significant difference was also valid for B1 and C1 levels since B1 (*t*(79): -5.839, *p* = .000) and C1 (*t*(26): -3.125, *p* = .004) levels were more accurate with SE verbs (B1: *M* = 13.51; *SD* = 3.56); C1 (*M* = 16.96; *SD* = 2.39)) than OE verbs (B1 (*M* = 10.261; *SD* = 4.34); C1 (*M* = 15.11; *SD* = 2.72)).

4.1.2. Accuracy levels in terms of animacy & language level: PIT

4.1.2.1. OE verbs with AS vs. OE verbs with InAS

One other variable that theorized to be effective for the acquisition of psych verbs was animacy. In order to examine any effect of this variable, the accuracy scores for OE verbs with Animate Subjects (AS) and Inanimate Subjects (InAS) were calculated totally and across five language levels.

Table 4.10. *PIT: OE Verbs with AS and InAS: general descriptive statistics across language levels*

	Language Level	*n* *(239)*	Accuracy Score				
			Min.	Max.	*M*	*SD*	*SEM*
OE Verbs AS	A2	39	1	9	5.08	2.59	0.41
	B1	80	0	10	8.08	2.21	0.25
	B2	87	5	10	9.22	1.18	0.13
	C1	27	9	10	9.81	0.40	0.08
	C2	6	9	10	9.67	0.52	0.21
	Total	239	0	10	8.24	2.35	0.15
OE Verbs InAS	A2	39	0	10	5.69	2.65	0.42
	B1	80	1	10	7.76	2.27	0.25
	B2	87	4	10	9.07	1.40	0.15
	C1	27	3	10	9.41	1.42	0.27
	C2	6	9	10	9.67	0.52	0.21
	Total	239	0	10	8.13	2.31	0.14

Maximum score: 10

The descriptive statistics reported in Table 4.10 mainly showed that as language levels of L2 learners increased, their accuracy scores for OE verbs with AS and InAS also raised (RQ1b – animacy & language level).

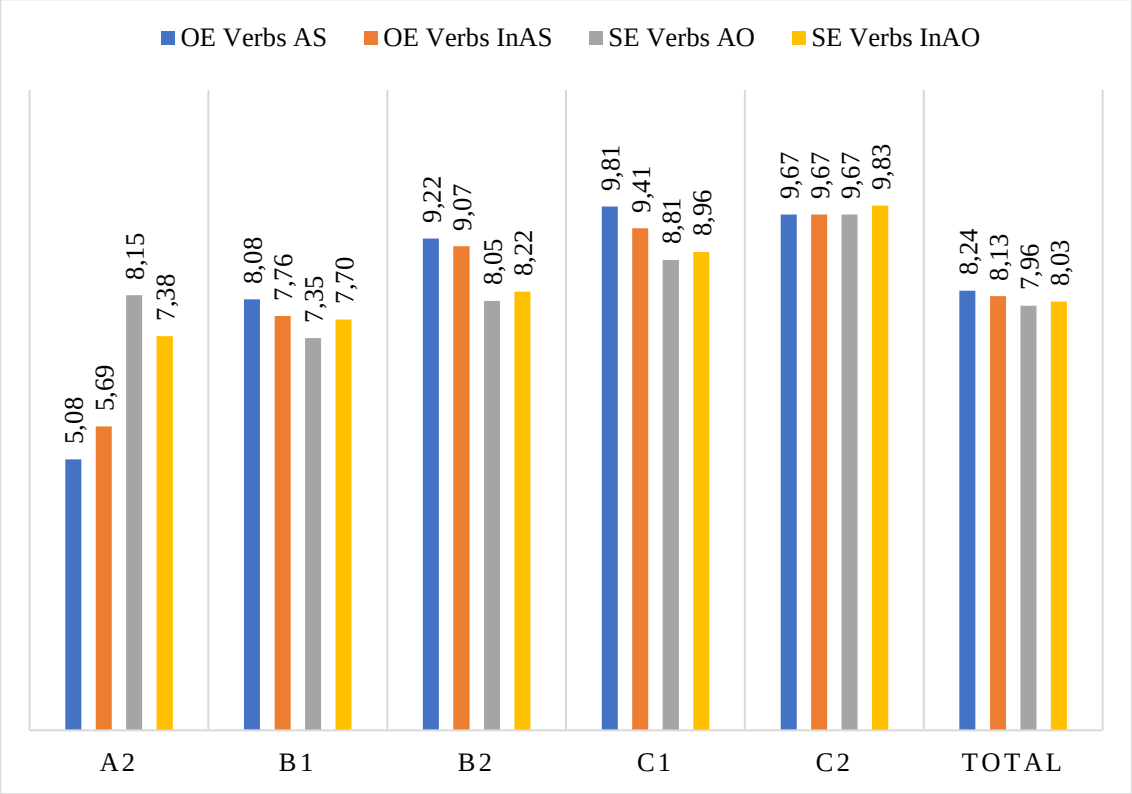


Figure 4.5. *PIT – accuracy score means for OE verbs with AS & InAS and SE Verbs with AO & InAO across language levels*

When accuracy scores for OE verbs with AS and InAS (RQ1b - animacy) were compared across language levels (see Figure 4.5 above), it was indicated that A2 level learners scored slightly more accurately for OE verbs with InAS (M = 5.69; SD = 2.65) than OE with AS (M = 5.08; SD = 2.59). B1, B2 and C1 level learners, on the other hand, scored more accurately for OE verbs with AS (M(B1) = 8.08; M(B2) = 9.22; M(C1) = 9.81) while C2 level learners gathered the same accuracy scores for the two structures (Ms = 9.67; SD = 0.52).

4.1.2.1.1. OE verbs with AS vs. OE verbs with InAS: language level

In addition to descriptive statistics, in order to find out whether there were statistically significant differences among learners with five different language levels in terms of OE verb accuracy scores with AS and InAS, firstly, a multivariate analysis of variance (MANOVA) test was performed to compare the means of the learners across five different language-levels (RQ1 – language level). The results of the MANOVA test indicated that there was statistically significant difference among the accuracy scores of the learners with different language levels in terms of OE verb accuracy scores with AS and InAS (Pillai's Trace = .439, F(8,468) = 16.44, p < .001; η^2 = .22).

Table 4.11. *PIT: one-way ANOVA test results for OE verbs with AS and InAS*

Source	Dependent Variable	Sum of Squares	*df*	Mean Square	*F*	*p*	partial η^2
Language Level	PIT_OE_AS	554.83	4	138.71	42.45	.000***	.42
	PIT_OE_InAS	377.48	4	94.37	24.64	.000***	30
Error	PIT_OE_AS	764.58	234	3.27			
	PIT_OE_InAS	896.23	234	3.83			

* p ≤ .05, ** p ≤ .01, *** p ≤ .001

Following these analyses, firstly, with the aim of finding out which OE verb accuracy score - the one with AS or the one with InAS, or both - the language level had an effect on, secondly, one-way ANOVA tests were conducted as follow-ups (RQ1 – language level). The results (see Table 4.11 above) indicated that language level had an effect on both OE verb accuracy scores with AS (F(4, 234) = 42.45, p < .001, η^2 = .42) and InAS (F(4, 234) = 24.64, p < .001, η^2 = .30), which meant that these two scores were significantly different for learners with different language levels

Table 4.12. *PIT: post hoc test (Bonferroni) results for OE verbs with AS and InAS across five language levels*

Dependent Variable	QPT Level	QPT Level	Mean Difference	*SE*	*p*	*95% CI for Mean Difference*	
PIT_OE AS	A2	B1	-3.00***	.35	.000	-4.00	-2.00
		B2	-4.14***	.35	.000	-5.13	-3.15
		C1	-4.74***	.45	.000	-6.02	-3.46
		C2	-4.59***	.79	.000	-6.84	-2.34
	B1	A2	3.00***	.35	.000	2.00	4.00
		B2	-1.14**	.28	.001	-1.94	-0.35
		C1	-1.74***	.40	000	-2.88	-0.60
		C2	-1.59	.77	.386	-3.76	0.58
	B2	A2	4.14***	.35	.000	3.15	5.13
		B1	1.14**	.28	.001	0.35	1.94
		C1	-0.60	.40	1.000	-1.73	0.53
		C2	-0.45	.77	1.000	-2.61	1.71
	C1	A2	4.74***	.45	.000	3.46	6.02
		B1	1.74***	.40	.000	0.60	2.88
		B2	0.60	.40	1.000	-0.53	1.73
		C2	0.15	.82	1.000	-2.16	2.46
	C2	A2	4.59***	.79	.000	2.34	6.84
		B1	1.59	.77	.386	-0.58	3.76
		B2	0.45	.76	1.000	-1.71	2.61
		C1	-0.15	.82	1.000	-2.46	2.16
PIT_OE InAS	A2	B1	-2.07***	.38	.000	-3.15	-0.99
		B2	-3.38***	.38	.000	-4.45	-2.31
		C1	-3.72***	.49	.000	-5.10	-2.33
		C2	-3.97***	.86	.000	-6.41	-1.54
	B1	A2	2.07***	.38	.000	0.99	3.15
		B2	-1.31***	.30	.000	-2.17	-0.45
		C1	-1.65**	.44	.002	-2.88	-0.41
		C2	-1.90	.83	.224	-4.25	0.44
	B2	A2	3.38***	.38	.000	2.31	4.45
		B1	1.31***	.30	.000	0.45	2.17
		C1	-0.34	.43	1.000	-1.56	0.88
		C2	-0.60	.83	1.000	-2.94	1.74
	C1	A2	3.72***	.49	.000	2.33	5.10
		B1	1.65**	.44	.002	0.41	2.88
		B2	0.34	.43	1.000	-0.88	1.56
		C2	-0.26	.88	1.000	-2.76	2.24
	C2	A2	3.97***	.86	.000	1.54	6.40
		B1	1.90	.83	.224	-0.44	4.25
		B2	0.60	.83	1.000	-1.74	2.94
		C1	0.26	.88	1.000	-2.24	2.76

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

Thirdly, to explore the data for any between group differences between means that might exist, the analysis was followed with post-hoc tests to investigate the differences between the five language levels (i.e., A2, B1, B2, C1, and C2). In this case, Bonferroni Post Hoc tests were carried out using SPSS, which controlled for Type I errors. The tests (see Table 4.12 above) revealed that accuracy scores of A2 level learners for OE verbs

with AS in the PIT were significantly lower than all other four levels (*ps* < .001). The same scores of B1 level learners were higher than A2 level (*ps* < .001), and lower than B2 (*p* < .001) and C1 level learners (*p* < .002). The scores of B2 and C1 level learners were statistically significantly higher than A2 (*ps*. < .001) and B1 levels learners (*p* < .001; p = .002, respectively). As for the OE verb accuracy scores with InAS in the PIT, A2 level scored statistically significantly lower than all other four groups (*ps* < .001). B1 level learners scored higher than A2 (*p* < .001), and lower than B2 (*p* < .001) and C1 level (*p* = .002) learners. While B2 and C1 level learners scored higher than A2 (*ps* < .001) and B1 levels (*p* < .001; *p* = .002, respectively), C2 level learners scored statistically significantly higher than A2 (*p* < .000) level learners.

4.1.2.1.2. OE verbs with AS vs. OE verbs with InAS: animacy

The results indicated that there was a significant difference for accuracy scores of OE verbs with AS and InAS in the PIT when participants were at different language levels. A series of paired-sample t-test were also conducted as a follow-up in order to investigate any difference between the participants' accuracy scores of OE verb with AS and OE verb with InAS at the same language levels (RQ1b – animacy).

Table 4.13. *PIT: descriptive statistics and paired sample t-test results for OE with AS & InAS*

Language Level	OE AS		OE InAS		*95% CI for Mean Difference*	*r*	*t*	*df*	*p*
	M	*SD*	*M*	*SD*					
A2	5.08	2.59	5.69	2.65	-1.15, -0.08	.80***	-2.309*	38	.026
B1	8.08	2.21	7.76	2.27	-0.01, 0.64	.79***	1.921	79	.058
B2	9.22	1.18	9.07	1.40	-0.11, 0.41	.58***	1.156	86	.251
C1	9.81	0.40	9.41	1.42	-0.18, 0.99	.00	1.436	26	.163
C2	9.67	0.52	9.67	0.52	-0.94, 0.94	-50	.000	5	1.000

* p ≤ .05, ** p ≤ .01, *** p ≤ .005

The results of the paired-sample t-tests (Table 4.13 above) indicated that there was a statistically significant difference (*t*(38): -2.309, *p* = .026) between A2 level participants' accuracy scores for OE verbs with AS (*M* = 5.08; *SD* = 2.59) and OE verbs with InAS (*M* = 5.69; *SD* = 2.65), which showed that the participants in A2 level were more accurate with OE verbs with InAS. However, there was not such a similar statistically significant difference for the other language levels.

4.1.2.2. SE verbs with AO vs. SE verbs with InAO

The role of animacy on the accuracy scores for SE verbs with Animate Objects (AO) and Inanimate Objects (InAO) were calculated totally and across five language levels.

Table 4.14. *PIT: general descriptive statistics for SE verbs with AO and INAO across language levels*

	Language Level	*n* *(239)*	Accuracy Score				
			Min.	Max.	*M*	*SD*	*SEM*
SE Verbs AO	A2	39	5	10	8.15	1.31	0.21
	B1	80	4	10	7.35	1.42	0.16
	B2	87	5	10	8.05	1.42	0.15
	C1	27	4	10	8.81	1.42	0.27
	C2	6	8	10	9.67	0.82	0.33
	All participants	239	4	10	7.96	1.48	0.10
SE Verbs InAO	A2	39	4	10	7.38	1.62	0.26
	B1	80	4	10	7.70	1.51	0.17
	B2	87	4	10	8.22	1.40	0.15
	C1	27	4	10	8.96	1.40	0.27
	C2	6	9	10	9.83	0.41	0.17
	All participants	239	4	10	8.03	1.55	0.10

Maximum score: 10

The descriptive statistics reported in Table 4.14 mainly indicated that as language levels of L2 learners increased (RQ1b – animacy & language level), their scores for SE verbs with AO and InAO also got higher, except for A2 level students' verb accuracy scores for SE verbs with AO (M = 8.15; SD = 1.31) because these scores were found to be higher than B1 (M = 7.35; SD = 1.42) and B2 level learners (M = 8.05; SD = 1.42).

As seen in Figure 4.5 above, when accuracy scores for SE verbs with AO and InAO were compared across language levels (RQ1b – animacy & language level), it was indicated that A2 level learners scored slightly more accurately for SE verbs with AO (M = 8.15; SD = 1.31) than SE verbs with InAO (M = 7.38; SD = 1.62). B1, B2, C1 and C2 level learners, on the other hand, scored more accurately for SE verbs with InAO (M (B1) = 7.70; M (B2) = 8.22; M (C1) = 8.96; M (C2) = 9.83).

4.1.2.2.1. SE with AO and InAO: language level

Following descriptive statistics, to find out whether there were statistically significant differences among learners with five different language levels in terms of their accuracy scores for SE verbs with AO and SE verbs with InAO, firstly, a multivariate

analysis of variance (MANOVA) test was performed to compare the means of the learners from these two structures across five different language-levels (RQ1 – language level). The results of the MANOVA test indicated that there was statistically significant difference among the accuracy scores of the learners with different language levels in terms of the scores on SE verbs with AO and SE verbs with InAO (Pillai's Trace = .229, $F(8,468) = 7.55$, $p < .001$; $\eta^2 = .11$). This meant that language level had an effect on SE verb accuracy scores, and either SE verb accuracy scores with AO or InAO or both changed in terms of different language levels.

Table 4.15. *PIT - one-way ANOVA test results for SE verbs with AO and InAO*

Source	Dependent Variable	Sum of Squares	*df*	Mean Square	*F*	*p*	partial η^2
Language Level	PIT_SE_AO	69.08	4	17.27	8.89	.000***	.13
	PIT_SE_INAO	71.06	4	17.76	8.30	.000***	.12
Error	PIT_SE_AO	454.5	234	1.94			
	PIT_SE_INAO	500.68	234	2.14			

* p ≤ .05, ** p ≤ .01, *** p ≤ .001

Secondly, to find out which SE verb accuracy score - the one with AO or the one with InAO, or both - the language level had an effect on, one-way ANOVA tests were conducted as follow-ups (RQ1 – language level). The results (see Table 4.15 above) indicated that language level had an effect on both SE verb accuracy scores with AO ($F(4, 234) = 8.89$, $p < .001$, $\eta^2 = .13$) and InAO ($F(4, 234) = 8.30$, $p < .001$, $\eta^2 = .12$), which meant that these two scores were significantly different for learners with different language levels.

Thirdly, to explore the data for any between group differences that might exist between means, the analysis was followed up with post-hoc tests to investigate the differences between the five language levels (i.e., A2, B1, B2, C1, and C2). In this case, we carried out Bonferroni Post Hoc tests using SPSS, which controlled for Type I errors. The tests (Table 4.16 below) revealed that accuracy scores of A2 level for SE verb with AO were significantly higher than B1 ($p = .035$) and B2 levels ($p < .001$). The same scores of B1 level learners were lower than all other levels that were A2 ($p = .035$), B2 ($p = .014$), C1 ($p < .001$) and C2 ($p = .001$). The scores of B2 were lower than A2 ($p < .001$) and higher than B1 ($p = .014$) levels. While C1 level learners statistically significantly

scored higher than B1 ($p < .001$) and lower than C2 ($p < .001$) levels, C2 level learners scored higher than two different levels that were B1 ($p = .001$) and C1 ($p < .001$).

Table 4.16. *PIT: post hoc test (Bonferroni) results for SE verbs with AO and InAO across five language levels*

Dependent Variable	QPT Level	QPT Level	Mean Difference	*SE*	*p*	*95% CI for Mean Difference*	
PIT_SE_AO	A2	B1	0.80*	0.27	.035	0.03	1.58
		B2	0.11***	0.27	.000	-0.65	0.87
		C1	-0.66	0.35	.594	-1.65	0.33
		C2	-1.51	0.61	.140	-3.24	0.22
	B1	A2	-0.80*	0.27	.035	-1.58	-0.03
		B2	-0.70*	0.22	.014	-1.30	-0.08
		C1	-1.46***	0.31	.000	-2.34	-0.59
		C2	-2.32***	0.59	.001	-3.99	-0.64
	B2	A2	-0.11***	0.27	.000	-0.87	0.65
		B1	0.70*	0.22	.014	0.084	1.31
		C1	-0.77	0.31	.130	-1.64	0.10
		C2	-1.62	0.59	.063	-3.29	0.05
	C1	A2	0.66	0.35	.594	-0.33	1.65
		B1	1.46***	0.31	.000	0.59	2.34
		B2	0.77	0.30	.130	-0.10	1.64
		C2	-0.85***	0.63	.000	-2.63	0.93
	C2	A2	1.51	0.61	.140	-0.22	3.24
		B1	2.32***	0.59	.001	0.64	3.99
		B2	1.62	0.59	.063	-0.05	3.29
		C1	0.85***	0.63	.000	-0.93	2.63
PIT_SE_InAO	A2	B1	-0.32***	0.29	.000	-1.12	0.49
		B2	-0.83*	0.28	.034	-1.63	-0.03
		C1	-1.58***	0.37	.000	-2.62	-0.54
		C2	-2.45**	0.64	.002	-4.27	-0.63
	B1	A2	0.32***	0.29	.000	-0.49	1.12
		B2	-0.52	0.23	.230	-1.16	0.12
		C1	-1.26***	0.33	.001	-2.19	-0.34
		C2	-2.13**	0.62	.007	-3.89	-0.38
	B2	A2	0.83*	0.28	.034	0.04	1.63
		B1	0.52	0.23	.230	-0.12	1.16
		C1	-0.74	0.32	.217	-1.66	0.17
		C2	-1.61	0.62	.095	-3.36	0.13
	C1	A2	1.58***	0.37	.000	0.54	2.62
		B1	1.26***	0.33	.001	0.34	2.19
		B2	0.74	0.32	.217	-0.17	1.66
		C2	-0.87***	0.66	.000	-2.74	1.00
	C2	A2	2.45**	0.64	.002	0.63	4.27
		B1	2.13**	0.62	.007	0.38	3.89
		B2	1.61	0.62	.095	-0.13	3.36
		C1	0.87***	0.66	.000	-1.00	2.74

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

As for the SE verb accuracy scores with InAO, Post Hoc Tests (i.e., Bonferroni) revealed that Level A2 scored statistically significantly lower than all other scores (B1 (p < .001), B2 (p = .034), C1 (p < .001), C2 (p = .002)). B1 level scored higher than A2 (p < .001) and lower than C1 (p = .002) and C2 (p = .007) while B2 level just scored higher than A2 (p = .034). C1 level learners scored higher than A2 (p < .001) and B1 (p = .001) and lower than C2 (p < .001) while C2 level learners scored higher than A2 (p = .002), B1 (p = .007) and C1 (p < .000).

4.1.2.2.2. SE with AO and InAO: animacy

The results indicated that there was a significant difference between the accuracy scores of SE verbs with AO and InAO in the PIT when participants were at different language levels (RQ1 – language level). A series of paired-sample t-test were also conducted as a follow-up in order to investigate any difference between SE verbs accuracy scores of the participants at the same language levels (RQ1b – animacy).

Table 4.17. *PIT: descriptive statistics and paired sample T-test results for SE with AO & InAO*

Language Level	SE AO		SE InAO		*95% CI for Mean Difference*	*r*	*t*	*df*	*p*
	M	*SD*	*M*	*SD*					
A2	8.15	1.31	7.38	1.62	0.32, 1.22	.57***	3.468***	38	.001
B1	7.35	1.42	7.70	1.51	-0.63, -0.07	.63***	-2.477*	79	.015
B2	8.05	1.42	8.22	1.40	-0.42, 0,07	.66***	-1.382	86	.170
C1	8.81	1.42	8.96	1.40	-0.49, 0.19	.81***	-.891	26	.381
C2	9.67	0.82	9.83	0.41	-1.20, 0.87	-.20	-.415	5	.695

* p < .05, ** p < .01, *** p ≤ .001

As for the SE verbs in the PIT, the results of the paired-sample t-tests (see Table 4.17 above) indicated that there was a statistically significant difference (t(38): 3.468, p = .001) between the A2 level participants' accuracy scores for SE verbs with AO (M = 8.15; SD = 1.31) and SE verbs with InAO (M = 7.38; SD = 1.62), which showed that the participants in A2 level were more accurate with SE verbs with AO. B1 level leaners were, on the other hand, more accurate with SE verbs with InAO (M = 7.70; SD = 1.51) than SE verbs with AO (M = 7.35; SD = 1.42) at a significant level (t(79): -2.477, p = .015). There was no significant difference between SE verb accuracy scores of B2, C1 and C2 level learners in terms of animacy.

4.2. Preferences of Turkish-speaking EFL learners in the production of English psych-verbs

In 4.1, the results regarding the accuracy levels of Turkish EFL learners in comprehension of psych verbs were clarified and justified with statistical analyses. This section reported the findings of the third task that was the WPT in which a total of 239 respondents' (with five different language levels) production of SE and OE verbs were investigated through the examination of their composed sentences based on a mini-paragraph *(*RQ2).

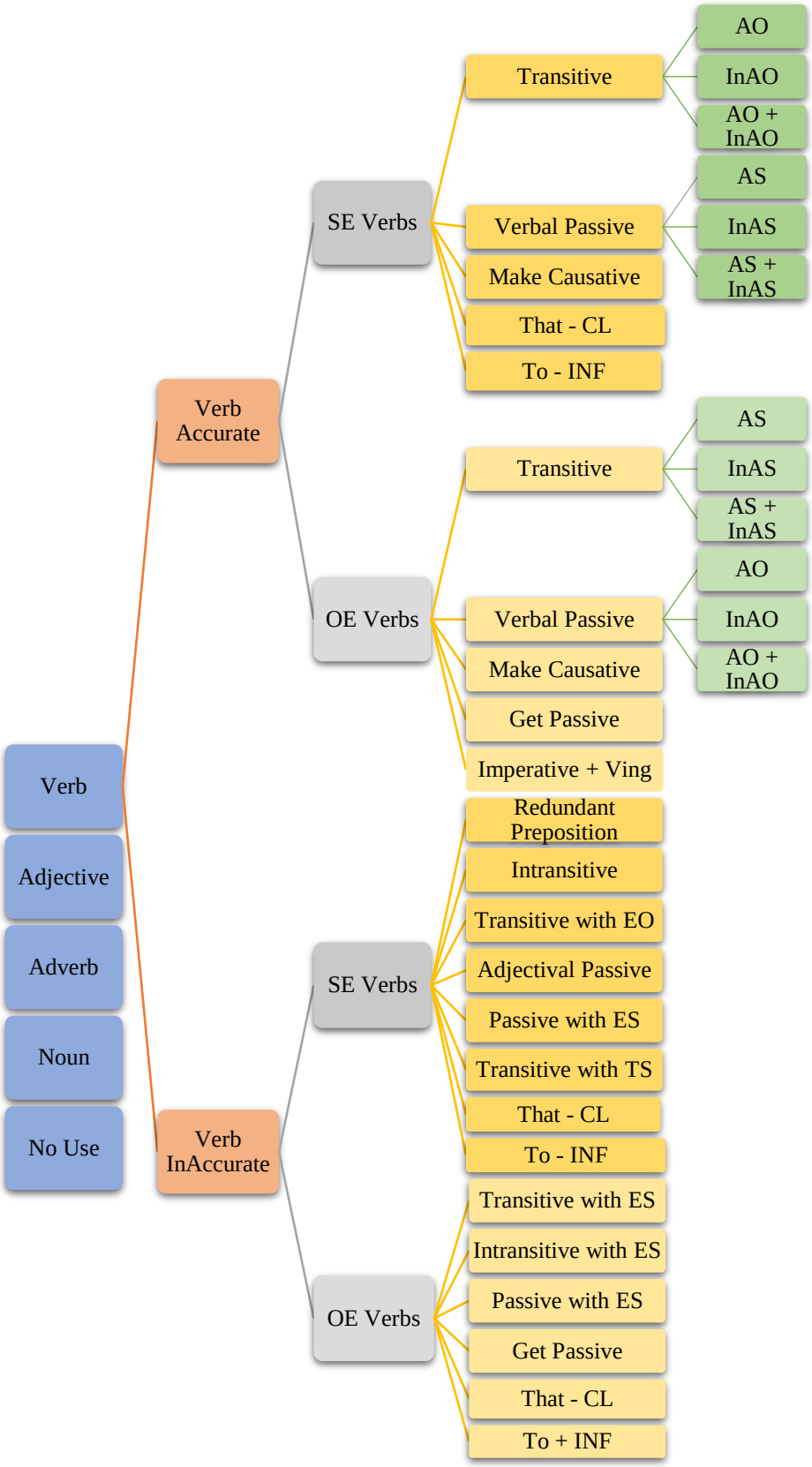


Figure 4.6. *Preferences of EFL learners in WPT: five major and minor categories*

When the composed sentences with SE and OE verbs were examined, firstly, five major categories of production had been determined that were *1) Verb, 2) Adjective, 3) Adverb, 4) Noun, and 5) No Answer* (see Figure 4.6 above). Four categories were observed for both OE and SE verbs while *"adverb"* was just observed for the production of OE verbs. The uses of psych verbs as a verb were also classified as *Verb_Accurate* and *Verb_Inaccurate*. OE and SE psych verbs demonstrated different syntactic frames in their accurate (e.g., *Transitive*) and inaccurate uses (e.g., *Transitive with ES*) which was reported in the following titles accompanied with frequencies and percentages. Also, the role of animacy in the production data was discussed via the distribution of animate/inanimate subjects and objects.

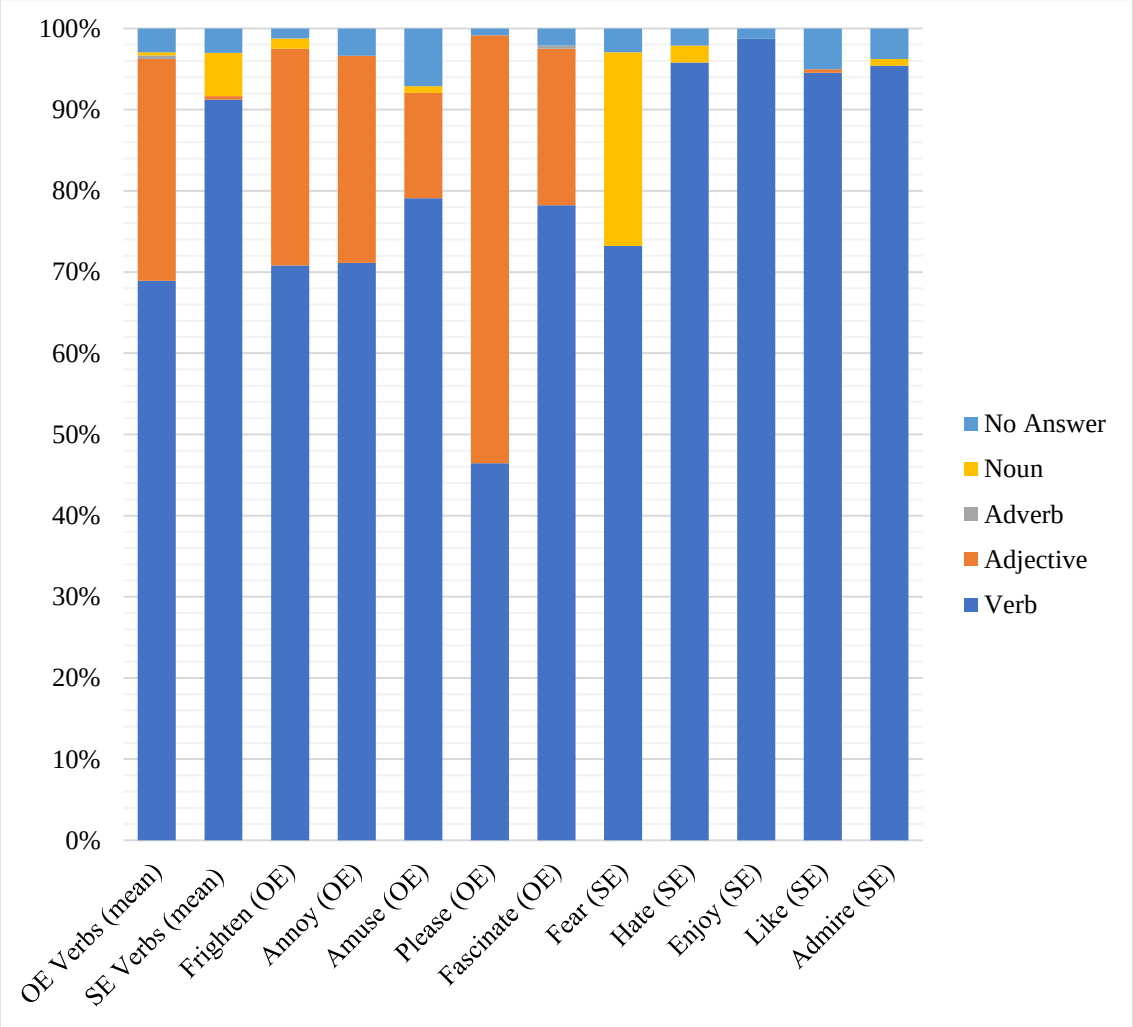


Figure 4.7. *Major categories of production in WPT*

K28 (B1) was included in two subcategories of verb (i.e., *Adjective* and *Transitive / InAS*): ("Jimmy was frightened when he saw the needle. The needle frightened him.")

Firstly, the production categories of OE verbs (see Figure 4.7 above) could be noted as *Verb* (*f* = 165,4; 69.12%), *Adjective* (*f* = 65,6; 27.45%), *No Answer* (*f* = 7; 2.93%), *Noun* (*f* = 5; 0.47%) and *Adverb* (*f* = 1; 0.08%). The production categories of SE verbs can be listed as *Verb* (*f* = 216; 90.71%), *Noun* (*f* = 64; 5.10%), *No Answer* (*f* = 7,2; 3.01%) and *Adjective* (*f* = 1; 0.08%) in a descending order. When two verb classes were compared, Figure 4.7 initially indicated that the production ratio of SE verb class as a verb was higher than OE verb class. (See Appendix 13 for the detailed distribution of five categories across individual verbs and language levels in terms of frequency and percentages).

Secondly, *Adjective*, especially adjectival passives of OE verbs, was noted to be an outstanding syntactic frame produced by the respondents while it was, naturally, almost never observed for SE verbs. Similar to *Adjective*, *Noun* was the other prominent category for SE verbs, especially for the verb *fear*; however, it was rarely used for OE verbs. Only one respondent turned the OE verb into an adverb while none of the respondents did this for SE verbs. Lastly, when the ratio of respondents providing no response to the items of the WPT was compared, the ones of OE and SE verbs were found to be close to each other.

In the following lines, each verb had been analyzed, and the results were highlighted with the examples of respondents' individual production for OE and SE verbs. Since the concern of this study is the use of psych verbs in the verb form, the other uses such as *Adjective*, *Noun* and *Adverb* will be explained below with a few examples in the light of Figure 4.7.

Five different verbs were included in the OE verbs that were *frighten*, *annoy*, *amuse*, *please* and *fascinate*. The first OE verb, *frighten*, displayed the examples of four major categories of production that were *Verb* (*f* = 170; 71.13%), *Adjective* (*f* = 64; 26.78%), *Noun* (*f* = 3; 1.25%) and *No Answer* (*f* = 3; 1.25%). *Adjective* (e.g., especially adjectival passives of OE verbs) was a prominent major category of production for OE verbs in general. For that reason, just some examples of use had been presented below (4.1). The last production category which was quite rare in the data was *Noun* in which respondents in A2 level used *frighten* ungrammatically as a *noun* (4.2):

(4.1) *Adjective* (frightened) – 64 Tokens

Jimmy was quite frightened when he saw the needle. (P254 – B1)

Jimmy was frightened of the needle the doctor gave him at the hospital. (P190 – B2)
Jimmy was frightened when he saw the doctor with the needle. (P251 – C1)
Jimmy was frightened when he saw the needle. (P38 - C2)

(4.2) *Noun* (frighten) – 3 Tokens

*Jimmy has high frighten. (K61 – A2 / K283 – A2)
*Jimmy has got so much frighten. (K270 – A2)

The production of the second OE verb, *annoy*, consisted of three major categories: *Verb* (*f* = 170; 71.13%), *Adjective* (*f* = 61; 25.52%) and *No Answer* (*f* = 8; 3.35%). *Adjective* had again become a frequently used category for the respondents with different language levels (4.3):

(4.3) *Adjective* (annoyed) – 61 Tokens

Martin was annoyed because the policeman gave speeding ticket to him. (P10 – A2)
Martin was annoyed because policeman gave a speeding ticket. (P1 – B1)
Martin was annoyed with the speeding ticket. (K1 – B2)
Martin was annoyed at the policeman. (P51 – C1)
Martin was annoyed to have gotten a speeding ticket from a policeman. (K27 - C2)

The third OE verb, *amuse*, seemed in the data with four major categories: *Verb* (*f* = 189; 79.08%), *Adjective* (*f* = 31; 12.97%), *Noun* (*f* = 2 ; 0.84%) and *No Answer* (*f* = 17; 7.11%). As compared to the other four verbs, relatively fewer respondents with four different language levels produced *Adjective* category for this verb, which was exemplified below (4.4). Also, two respondents transformed *amuse* into a *noun* and formed sentences with *amusement* (4.5):

(4.4) *Adjective* (amused) – 31 Tokens

Leroy felt amused. (P283 – A2)
Leroy's failure of attempting to fix car breakdown was amusing for his parents. (P259 – B1)
Leroy's parents were amused when they saw Leroy's attempt, which is a failure, in order to fix the car breakdown. (P212 – B2)
Leroy's parents were amused to see Leroy's attempt to fix the car. (P134 – C1)

(4.5) *Noun* (amusement) – 2 Tokens

Watching Leroy's attempt to fix the car was an amusement for his parents. (P79 – B1)
Leroy's failed attempt to repair the car was an amusement for his parents. (P223 – B2)

The production categories of the fourth OE verb, *please*, included the major production categories of *Verb* (*f* = 111; 46.44%), *Adjective* (*f* = 126; 52.72%) and *No Answer* (*f* = 2; 0.84%). Among five verbs, *please* was the most frequently adjectivized verb instead of being used as a verb, and the respondents from all five different language levels formed sentences using *Adjective* category (4.6):

(4.6) *Adjective* (pleased / pleasing) – 126 Tokens

Alice was pleased that she visited touristic places in İstanbul thanks to her tour guide. (P101 – A2)
Alice was pleased with the İstanbul tour guide. (K18 – B1)
Alice was pleased to visit İstanbul due to an experienced tour guide and touristy places. (P193 – B2)
It was pleasing for Alice to visit touristic places. (P49 – C1)
Alice was pleased about her trip to İstanbul. (P38 – C2)

The last OE verb, *fascinate*, displayed examples of four major production categories: *Verb* (*f* = 187; 78.24%), *Adjective* (*f* = 46; 19.50%), *Adverb* (*f* = 1; 0.42%) and *No Answer* (*f* = 5; 2.09%). *Adjective* as a major category was used by the respondents with four different language levels (4.7) while only one example sentence was formed with an *Adverb* among the total of ten SE and OE verbs (4.8):

(4.7) *Adjective* (fascinated) – 46 Tokens

*Charlie is fascinated from the books about cars. (P282 – A2)
Charlie was fascinated. (P71 – B1)
Charlie was fascinated with picture books about cars which his mother bought him. (P15 – B2)
Charlie was fascinated about books. (P78 – C1)

(4.8) *Adverb (fascinatingly)* – 1 Token

Charlie's mother bought him books about cars. He read them fascinatingly. (K16 – B1)

Five different verbs were included in the SE verb class that were *fear*, *hate*, *enjoy*, *like* and *admire*. The first SE verb, *fear*, displayed the examples of three major categories: *Verb* (*f* = 175; 73.22%), *Noun* (*f* = 57; 23.85%) and *No Answer* (*f* = 7; 2.93%). Among

five SE verbs, *Noun* was the most frequently used major category for *fear* as seen in the examples of the respondents with different language levels (4.9):

(4.9) *Noun (fear)* – 57 Tokens

Gloria wanted to move another apartment but fear of her father make it complicated. (P14 - A2)
Gloria is thinking about moving to a new apartment but the fear of her father's discipline makes it harder. (P28 – B1)
The fear of father's discipline made Gloria feel undecided. (P145 – B2)
Gloria's fear of her father made her undecisive about moving. (P68 – C1)
Gloria's fear of her father and his discipline made her undecisive about moving to a new apartment. (P27 – C2)

The second SE verb, *hate*, displayed the examples of three major categories: *Verb* (*f* = 229; 95.81%), *Noun* (*f* = 5; 2.09%) and *No Answer* (*f* = 5; 2.09%). In contrast with *fear*, *Noun* was a rarely used major production category for *hate*. As seen in the examples of the respondents with different language levels, two different *Nouns* were used that were *hate* (4.10) and *hatred* (4.11):

(4.10) *Noun (hate)* – 3 Tokens

Kaneko's hate comes from what he had experienced. (P141 – B1)
His hate after having is house destroyed by atomic bomb lead Kaneko run away from war and live in mountains. (P192 – B2)
Kaneko's hate of soldiers made him move to the mountains. (P68 – C1)

(4.11) *Noun (hatred)* – 2 Tokens

Because of the hatred Kaneko has, he moved mountains. (P259 – B1)
Kaneko was full of hatred when his home town was destroyed by a atomic bomb. (P127 – C1)

The third SE verb, *enjoy*, seemed in the data with two major categories: *Verb* (*f* = 236; 98.75%), and *No Answer* (*f* = 3; 1.26%). The fourth SE verb, *like*, became diversified into three major categories: *Verb* (*f* = 217; 94.56%), *Adjective* (*f* = 1; 0.42%) and *No Answer* (*f* = 12; 5.02%). The last category was *Adjective*, and only one respondent used "likely" instead of the verb "l*ike*" (4.12):

(4.12) *Adjective (likely)* – 1 Token

Wes Cherry was likely to keep Solitaire out of boredom. (P254 - B1)

The fifth SE verb, *admire*, included three major categories of production: *Verb* (*f* = 196; 82%), *Noun* (*f* = 2; 0.84%) and *No Answer* (*f* = 9; 3.77%). Two respondents in C1 level ungrammatically used "*admire*" as a noun instead of deriving the verb and forming the noun "*admiration*" (4.13):

(4.13) *Noun (*admire)* – 2 Tokens

*John's courage gave him the admire of his schoolmates. (P127 – C1)

*John's life saving courage has won him the admire of his schoolmates. (P237 – C1)

In the lines above, the major production categories of OE and SE verbs were explained and exemplified. The results indicated that the production of SE verbs (*f* = 216; 90.71%) as a *verb* was more frequent than the production of OE verbs (*f* = 170; 71.13%) as a *verb*. Except "*fear*", the individual SE verbs were mostly used as a *verb* during sentence production, and the frequency of this use could be ordered as 1) *enjoy*, 2) *hate*, 3) *admire*, 4) *like* and 5) *fear* from the most to the least. Among the SE verbs, *fear* was the least frequently used as a *verb* however the use of it as a *verb* was more frequent than other four OE verbs (i.e., *frighten*, *annoy*, *fascinate and please*) while *amuse* as a *verb* was observed more than these four OE verbs and the SE verb *fear*. In the next parts, the focus of the study will be on the accurate and inaccurate uses of SE and OE verbs in the *verb* form.

4.2.1. Accurate/inaccurate uses of psych verbs as a verb

Apart from the use of psych verb in different production forms as seen in Figure 4.7, in this part, accurate and inaccurate use of psych verbs in terms of verb type, animacy and language level were examined and exemplified. Following that, the structures that the participants preferred while using psych verbs accurately and inaccurately were categorized and instantiated.

4.2.1.1. Frequency of accurate/inaccurate uses of psych verbs in terms of verb type

A deeper insight into the *Verb* category required to focus on accurate and inaccurate production of the respondents with OE and SE verbs as a set as well as individual verbs.

This focus mainly shed light on probable similar and/or different trends demonstrated by the two verb classes in terms of accuracy (RQ2ai).

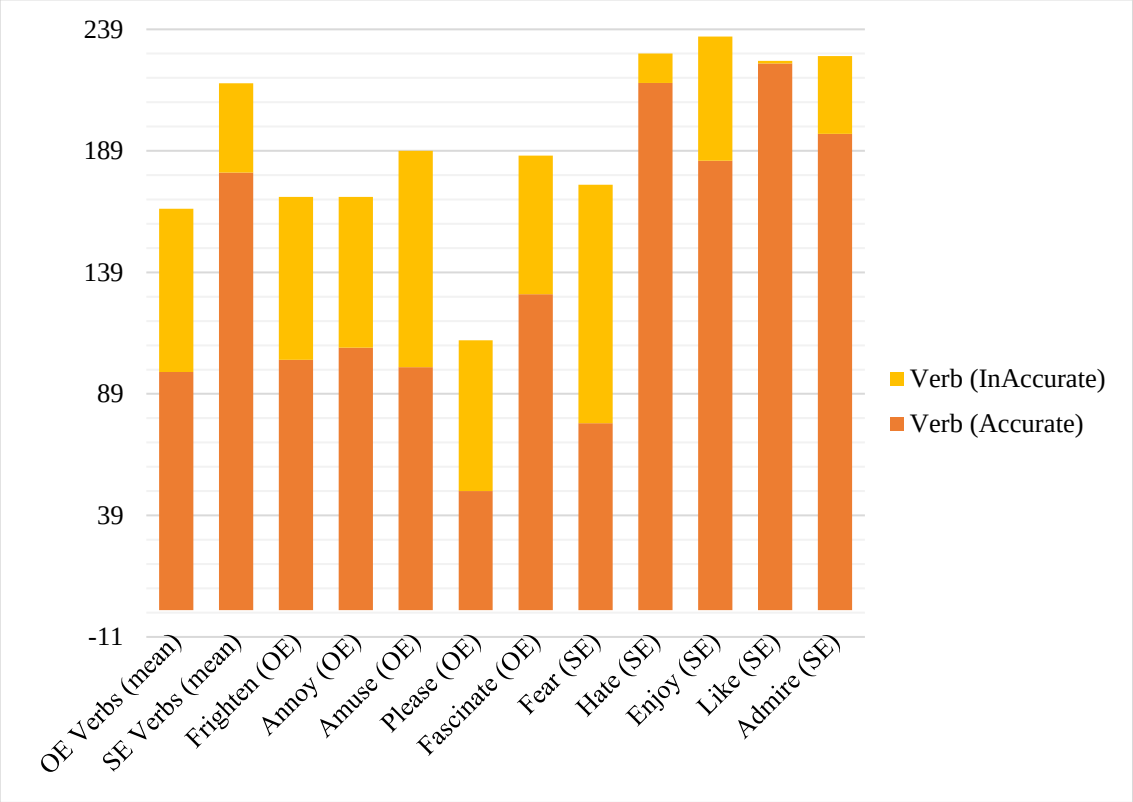


Figure 4.8. *Accurate and inaccurate verb production of SE and OE verbs in WPT*

Figure 4.8 noted that the mean accuracy scores of five SE verbs (*f* = 180; 75.31%) outnumbered the OE verbs (*f* = 98; 41%) in terms of accuracy of production which meant that the respondents were more successful in the use of SE verbs within their *Verb* form. This result was supported by another finding which indicated that the ratio of the respondents using SE verbs inaccurately (*f* = 36,8; 15.40%) was less than the ones using OE verbs inaccurately (*f* = 67,2; 28.12%). Therefore, it could be concluded that the accuracy level changed in terms of verb type, and the accuracy level of SE verbs was higher than the accuracy level of OE verbs in production.

The second concern was the accuracy level of individual verbs (See Appendix 13 for accuracy frequencies and ratios). Five different verbs were included in the OE verb class. The accuracy level of three OE verbs that were *frighten* (*f* = 103*;* 43.10%), *annoy* (*f* = 108; 45.19%) and *amuse* (*f* = 100*;* 41.84%) were close to each other while *fascinate* (*f* = 130; 54.39%) was the most accurately used and *please* (*f* = 49; 20.50%) was the least

accurately used OE verb. As for the individual SE verbs, the accuracy level of four verbs that were *hate* (*f* = 217; 90.79%) and *like* (*f* = 225; 94.14%) as well as *enjoy* (*f* = 185; 77.41%) and *admire* (*f* = 196; 82%) were close to each other while *fear* (*f* = 77; 32.22%) was the least accurately used SE verb. The comparison between individual OE and SE verbs in terms of accurate verb uses indicated that four SE verbs were found to be more accurately used than all OE verbs. Only one SE verb (i.e., *fear*) was problematic for the learners, and it was used less accurately than (four) OE verbs except for *please*.

In addition to the accurate uses, some verb uses were inaccurate which was highlighted with yellow in Figure 4.8. Among the inaccurate verb uses, the ratios of four OE verbs that were *frighten* (*f* = 67; 28.03%), *annoy* (*f* = 62; 25.94%), *please* (*f* = 62; 25.94%), and *fascinate* (*f* = 57; 23.85%) were similar while the inaccurate use ratio of *amuse* (*f* = 89; 37.24%) was higher than them. As for SE verbs, the ratio of inaccurate verb uses could be ordered ascendingly as follows: *like* (*f* = 1; 0.42%), *hate* (*f* = 12; 5.02%), *admire* (*f* = 32; 13.39%), *enjoy* (*f* = 51; 21.34%) and *fear* (*f* = 98; 41%). These values indicated that *like* and *hate* had very limited number of inaccurate uses while this number increased for *admire* and *enjoy*. Among all OE and SE verbs, the inaccurate use of *fear* was the most frequent one. The comparison between individual OE and SE verbs in term of inaccurate verb uses indicated that inaccurate verb use ratios of OE verbs were higher than the ones of four SE verbs. One of the SE verbs, that was *fear*, was the most challenging verb for the learners because the inaccurate use ratio of that verb was the highest one among ten individual verbs.

4.2.1.2. Frequency of accurate uses of psych verbs in terms of animacy

The deeper insight into the *Verb* category also required to focus on the role of animacy in the production of the respondents with OE and SE verbs as a set as well as individual verbs (RQ2a.ii).

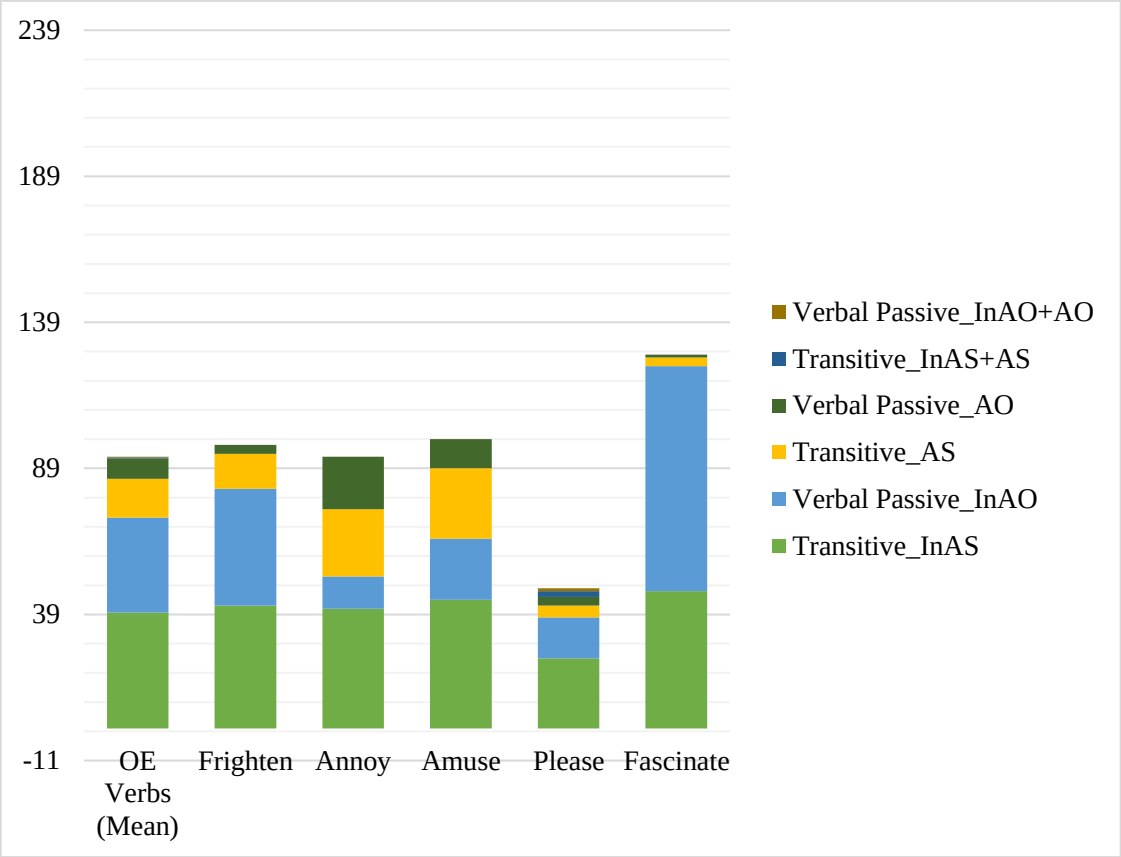


Figure 4.9. *Animacy in accurate production of OE verbs: transitive and verbal passive*

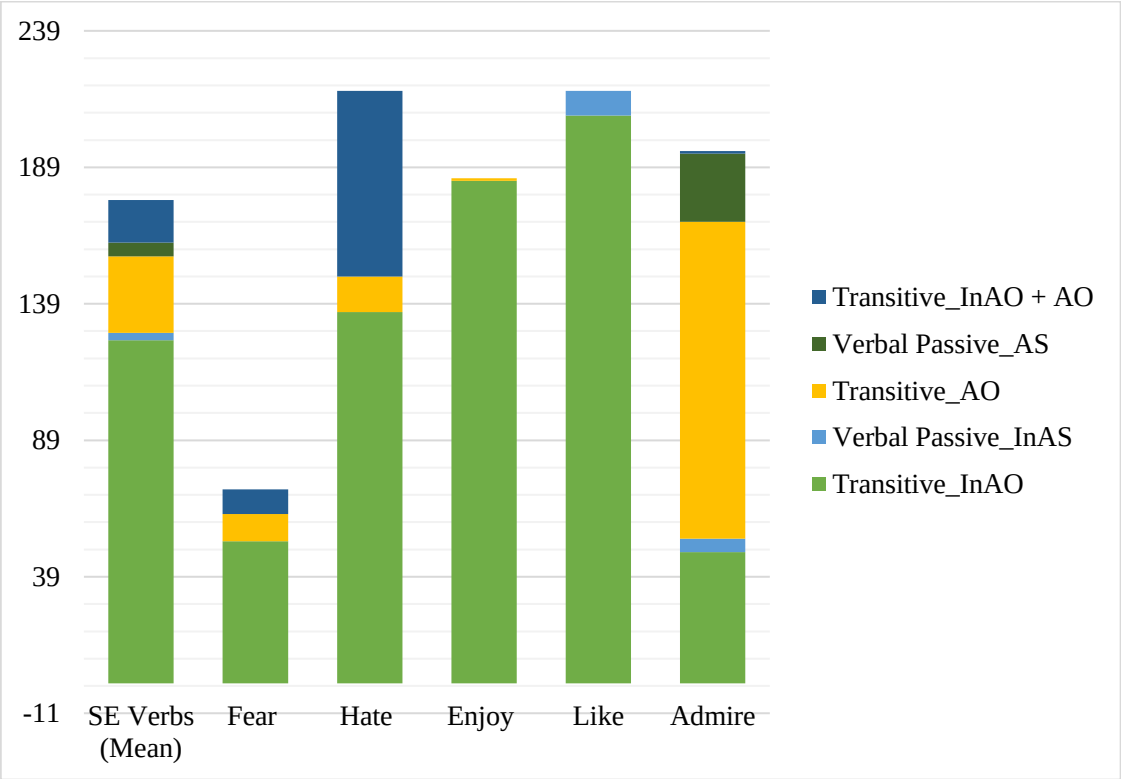


Figure 4.10. *Animacy in accurate production of SE verbs: transitive and verbal passive*

Figure 4.9 (above) demonstrated the distribution of animate/inanimate objects in *Transitive* and animate/inanimate subjects in *Verbal Passive* uses of OE verbs. As the figure pointed out, the frequency of the use of InAS in *Transitive* form (*f* = 198; 16.67*%; e.g.* The needle frightened Jimmy.*)* and InAO in *Verbal Passive* form (*f* = 163; 13.64*%;* e.g. Jimmy was frightened by the needle.) of OE verbs were higher than the use of AS in *Transitive* form (*f* = 66; 5.52*%;* e.g., The doctor frightened Jimmy.) and AO in *Verbal Passive* form (*f* = 35; 2.93*%;* e.g., Jimmy was frightened by the doctor.), which emphasized that InAS were preferred more frequently by the respondents for the OE verbs as a set and individual verbs (see Appendix 13 for the frequencies and ratios of individual verbs). The respondents quite infrequently preferred both InAS and AS in *Transitive* form (*f* = 2; 0.17%; e.g., The needle and the doctor frightened Jimmy.) and InAO and AO in *Verbal Passive* form (*f* = 1; 0.08%; Jimmy was frightened by the needle and the doctor.).

Figure 4.10 (above) demonstrated the distribution of animate/inanimate subjects in *Transitive* and animate/inanimate objects in *Verbal Passive* uses of SE verbs. As the figure pointed out, the frequency of the use of InAO *i*n *Transitive* form (*f* = 628; 52.55%; e.g., Gloria feared the idea of moving.) and InAS in *Verbal Passive* form (*f* = 14; 1.17%; e.g., The idea of moving was feared by Gloria.) of SE verbs were higher than AO in *Transitive* form (*f* = 140; 11.71*%;* e.g., Gloria feared her father.) and AS in *Verbal Passive* form (*f* = 25; 2.09*%; Her father was feared by Gloria.)*, which emphasized that InAO were preferred more frequently by the respondents for the SE verbs as a set, and individual verbs (see Appendix 13 for the frequencies and ratios of individual verbs). The respondents quite infrequently preferred InAO and AO in *Transitive* form together (*f* = 78; 6.53*%;* e.g., Gloria feared the idea of moving and her father.).

As for the individual psych verbs, except for *fascinate*, the use of InAS in *Transitive* form was the most frequently used structure for individual OE verbs which was reported in a descending order as *amuse* (*f* = 44; 18.41%; e.g., Leroy's attempt to fix the car amused his parents.), *frighten* (*f* = 42; 17.57*%;* e.g., The needle frightened Jimmy.), *annoy* (*f* = 41; 17.15*%;* e.g., The speeding ticket annoyed Martin.), and *please* (*f* = 24; 10.04*%;* e.g., The trip to İstanbul pleased Alice.). However, the use of InAO *in Verbal Passive* form (*f* = 77; 32.22*%;* e.g., Charlie was fascinated by the books about cars.) was the most prominent structure for the OE *fascinate* which was followed by the use of InAS *in Transitive* form (*f* = 47; 19.76*%;* e.g., The books about cars fascinated Charlie.).

Among five individual SE verbs, the use of InAO in *Transitive* form was the most frequently produced structure for *like* (*f* = 208; 87.03*%;* e.g., Wes Cherry liked the computer game.), *enjoy* (*f* = 184; 76.99*%;* e.g., Jeffrey enjoyed the off-day.), *hate* (*f* = 136; 56.90*%*; e.g., Kaneko hated war.) and *fear* (*f* = 52; 21.76*%;* e.g., Gloria feared the idea of moving.). But, for *admire*, the use of AO in *Transitive* form (*f* = 116; 48.54*%;* e.g., His schoolmates admired John.) was the most often observed structure which was followed by InAO in *Transitive* form (*f* = 48; 20.08%; e.g., His schoolmates admired John's courage.). The use of InAO + AO together in *Transitive* form was the second frequently observed structure for *hate* (*f* = 68; 28.45*%;* e.g., Kaneko hated the war and the soldiers.) which was followed by AO in *Transitive* form (*f* = 13; 5.44*%; e.g., Kaneko hated the soldiers.*).

If the observation for the role of animacy in accurate uses of individual SE and OE psych verbs is summarized in general, it can be stated that InAS in *Transitive* and InAO in *Verbal Passive* sentences held the majority in the production data although some examples for AS in *Transitive* and AO in *Verbal Passive* forms were observed. The same trend was followed with SE verbs as well since InAO were mostly preferred by the participants in the production of individual SE verbs with the exception of *admire.*

4.2.1.3. Frequency of accurate/inaccurate uses of psych verbs in terms of language level

In addition to verb type and animacy, the third variable estimated to be effective in the acquisition of English psych verbs was language level. Figure 4.11 and Figure 4.12 below visualized the role of language level in the production of OE and SE verbs as a set as well as individual verbs (RQ2a.iii). As Figure 4.11 pointed out, the accuracy levels of the respondents with OE verbs showed parallelism with their language levels. As their language level increased, their accuracy level with OE verbs increased, too. The same tendency was also true for the inaccurate responses, since, as the respondents' language level decreased, their accuracy level with OE verbs decreased, as well.

Along with OE verbs as a set, five individual verbs followed this tendency with a few exceptions. The accuracy level of C1 level learners for *annoy* was higher than the accuracy level of B2 level learners. The inaccuracy level of B1 level learners for *amuse* was higher than the one of A2 level learners. Lastly, the accuracy level of B2 level learners for *fascinate* was higher than C1 level learners although those differences were

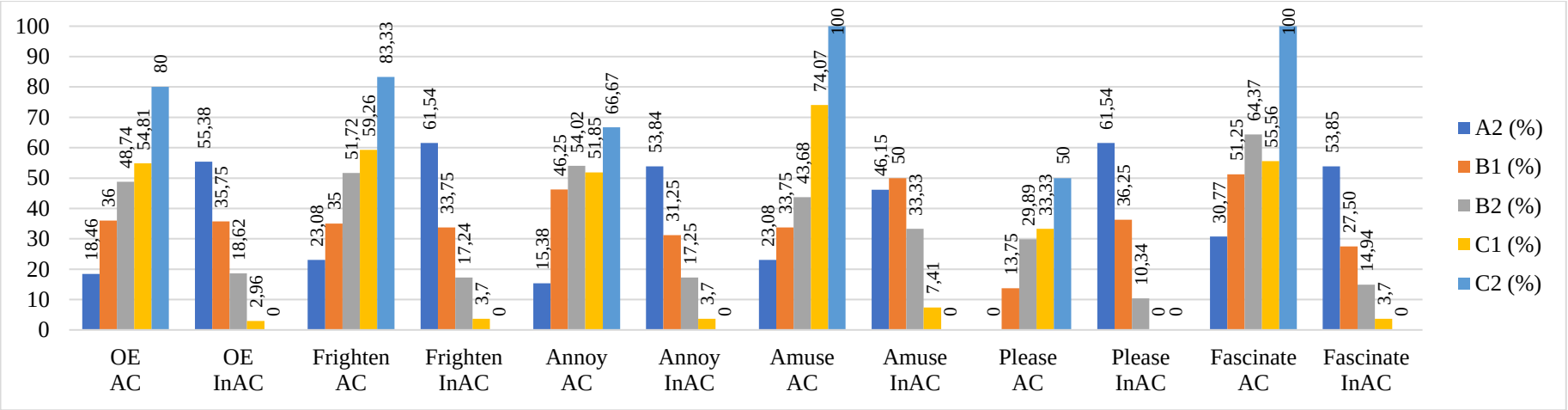


Figure 4.11. *OE verbs: verb accuracy in WPT across five language levels*

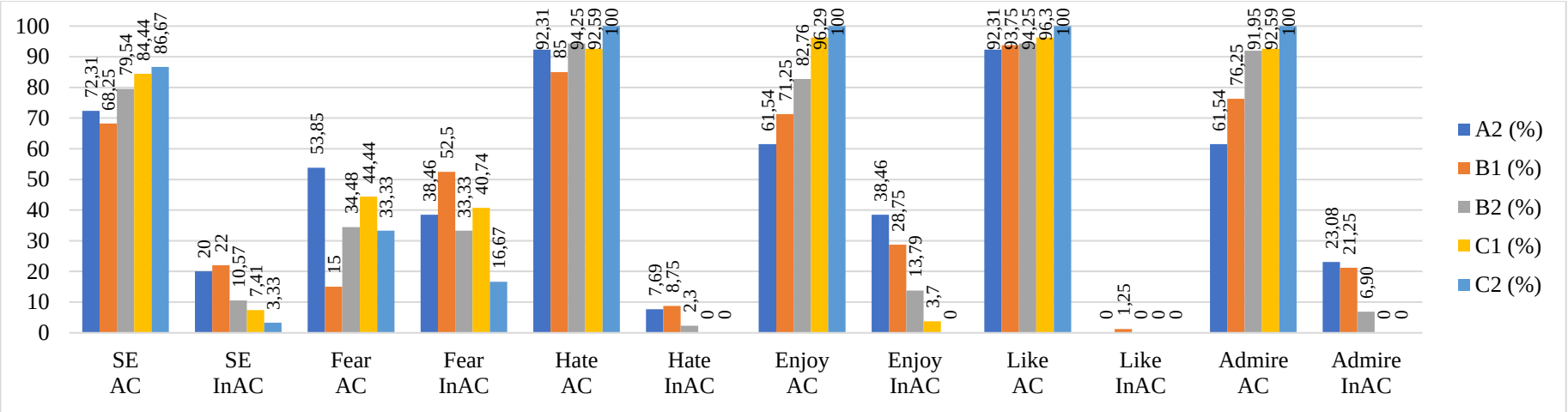


Figure 4.12. *SE verbs: verb accuracy in WPT across five language levels*

very little.

As for SE verbs, Figure 4.12 visualized the role of language level in the production of the respondents with this verb class as a set as well as individual verbs (RQ2b.iii). The figure indicated that verb accuracy level increased proportionally with language level however one language level (i.e., A2) displayed more accuracy as compared to its closest level (i.e., B1) for this verb class. B1 level also showed more inaccuracy in contrast with A2 level, which reaffirmed the better performance of A2 level than B1 level. The five individual SE verbs, but then, offered a different distribution in terms of language level and verb accuracy.

The accuracy levels of three SE verbs (i.e., *enjoy*, *like*, *admire*) ascended as their language levels increased. Also, as the respondents' language levels decreased, their accuracy level with those three SE verbs decreased, as well. However, as for *hate*, the accuracy rate of the A2 level respondents (i.e., 92.31%) was higher than the rate of B1 level respondents (i.e., 85%), which was also same for B2 (94.25%) and C1 (92.59%) level learners. But it should be noted that those differences among five language levels were very low, and most of the respondents in all levels performed accurately. Moreover, only the learners with the first three language levels (i.e., A2, B1 and B2) showed inaccuracy for *hate*, and the rate of B1 (8.75%) level learners were slightly higher than A2 (7.69%) level learners.

When the rates of (in)accuracy for *fear* was examined, an unsteady situation was observed. For instance, the accuracy rate of A2 level learners (53.85%) were higher than all other levels, which was followed by the accuracy rate of the learners in C1 (44.44%), B2 (34.48%), C2 (33.33%) and B1 (15%) levels. The inaccuracy rate of *fear* was highest for the learners in B1 level (52.5%), which was followed by C1 (40.74%), A2 (38.46%), B2 (33.3%) and C2 (16.67%) levels.

Apart from examining the general accuracy and inaccuracy levels in terms of language level, Figure 4.13 and Figure 4.14 below also showed the distribution of main and mostly preferred accurate and inaccurate forms of OE and SE verbs across five language levels. For OE verbs, *Transitive* and *Verbal Passive* forms of production was the most preferred structures, and the rates of *Transitive* form increased in parallel with the language level except for C2 level learners (i.e., 16.67%) who produced this form less than the three levels before (Figure 4.13). The rates of the respondents using *Verbal Passive* got higher with higher language levels, especially for C2 level learners (63.33%).

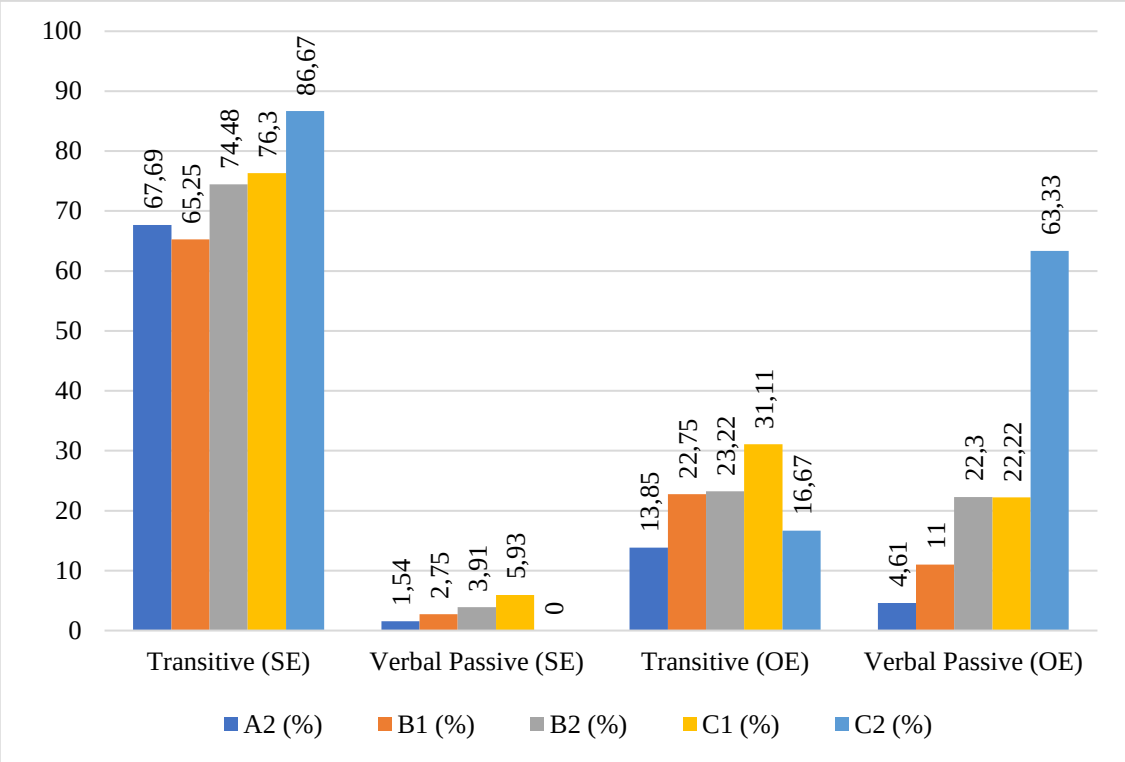


Figure 4.13. *Accurate production of OE and SE verbs in WPT across language levels*

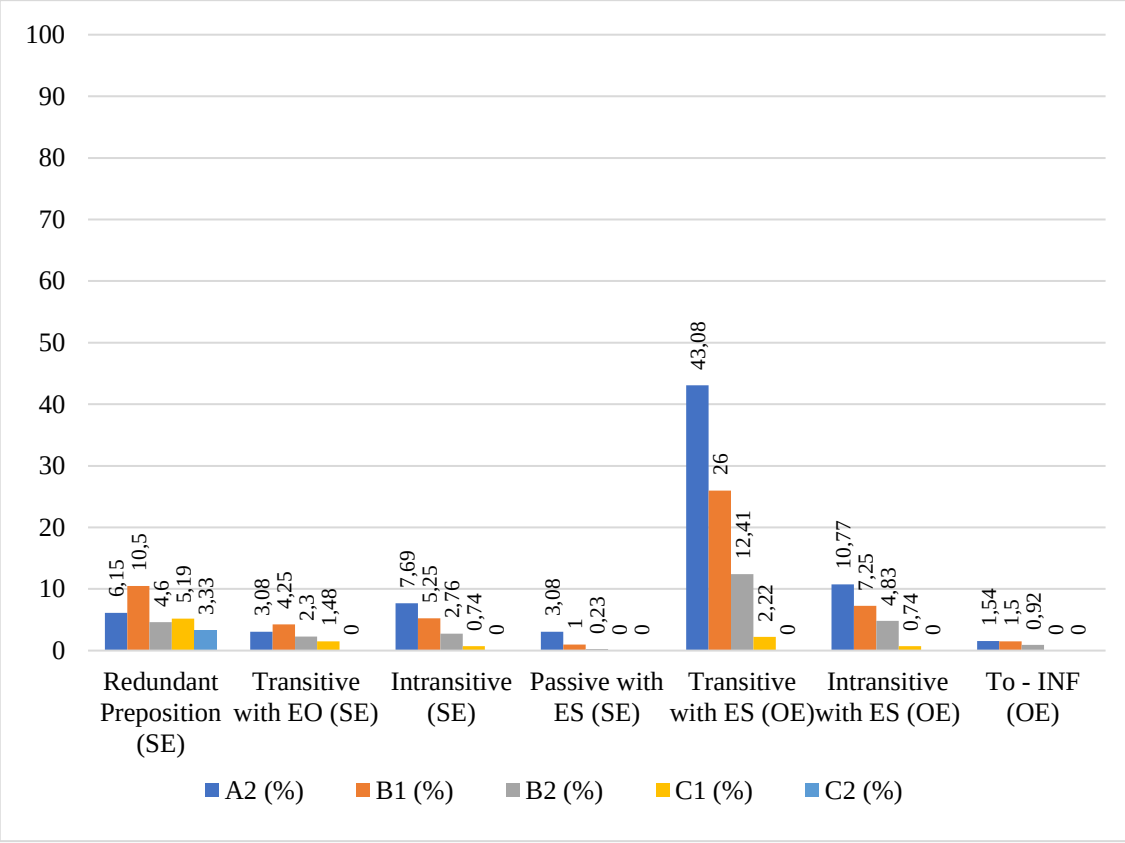


Figure 4.14. *InAccurate production of OE and SE verbs in WPT across language levels*

For SE verbs, the rates of the respondents using *Transitive* form increased gradually from B1 to C2 level while A2 level learners (67.69%) produced that form slightly more than B1 level leaners (65.25%). Concerning *Verbal Passive* form, Figure 4.13 above indicated that very low rates of the respondents were observed to be using that structure, and those rates increased with higher language levels (see Appendix 13 for the frequencies and ratios of individual verbs).

As for inaccurate production of OE and SE verbs, some prominent types of inaccurate production and their distribution across language levels were tabulated in Figure 4.14 above. For OE verbs, the three different inaccuracy categories showed an inversed relationship with language level. In other words, as the language level decreases there was an increase in the rates of the mistakes. Nevertheless, the inaccurate production structure, *Transitive with Experiencer Subject (ES, e.g.*, *Jimmy frightened needle.), was observed frequently in all language levels, especially in the data of A2 level learners (43.08%). For SE verbs, the inversed relationship between mistakes and language levels were contravened. For instance, the integration of a *Redundant Preposition* (e.g., *Kaneko hates from the wars.) with SE verbs was observed more in the sentences of B1 level learners (10.5%) which was followed by A2 (6.15%) and C1 (5.18%) levels although the intensity of that mistake among all levels was quite few, and that inaccurate production category was observed even in the data of C2 level learners. The other category, *Transitive with Experiencer Object* (EO, e.g., *The idea of moving feared Gloria.) was also produced a little bit more by B1 level learners (4.75%) and never by the C2 level learners. Overall, it can be commented that language level was observed as an effective variable in the distribution of inaccurate production categories.

The lines above examined the accurate and inaccurate production of psych verbs across language levels. In the following lines, the focus will be on the animacy, and the question on whether the respondents' preference on animacy changed across the language levels was answered.

As Figure 4.15 above indicated, the use of InAS in *Transitive* form with OE verbs was more frequent than the use of AS in *Transitive* form for all language levels except A2 level (*Transitive InAS* = 6.15%, *Transitive AS* = 7.69%). This finding was also valid for the use of InAO in *Verbal Passive* form (*A2* = 4.61%; *B1* = 8.5%; *B2* = 17.41%; *C1* = 20%; *C2* = 56.67%), and the respondents in all language levels produced more in this category than in the category of AO in *Verbal Passive* (*A2* = 0%; *B1* = 2.5%; *B2* = 4.60%;

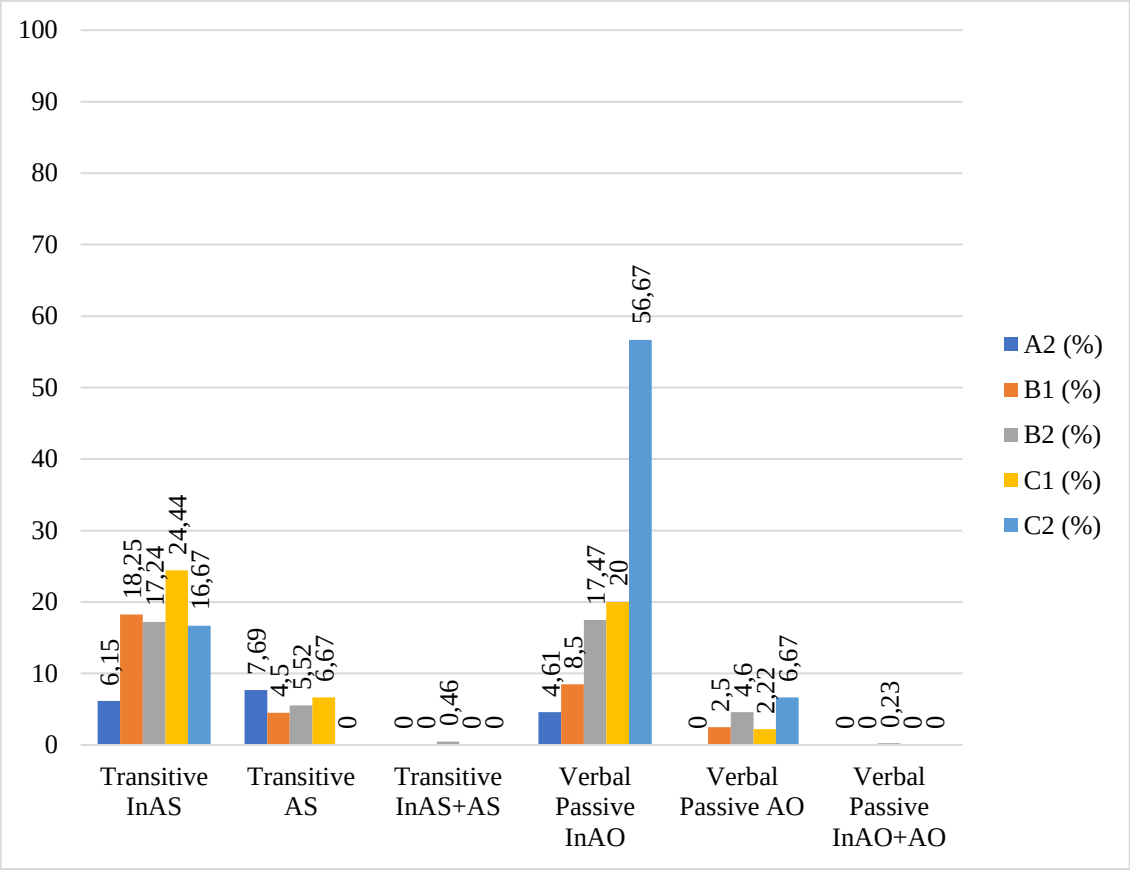


Figure 4.15. *Animacy in accurate production of OE verbs in WPT across language levels*

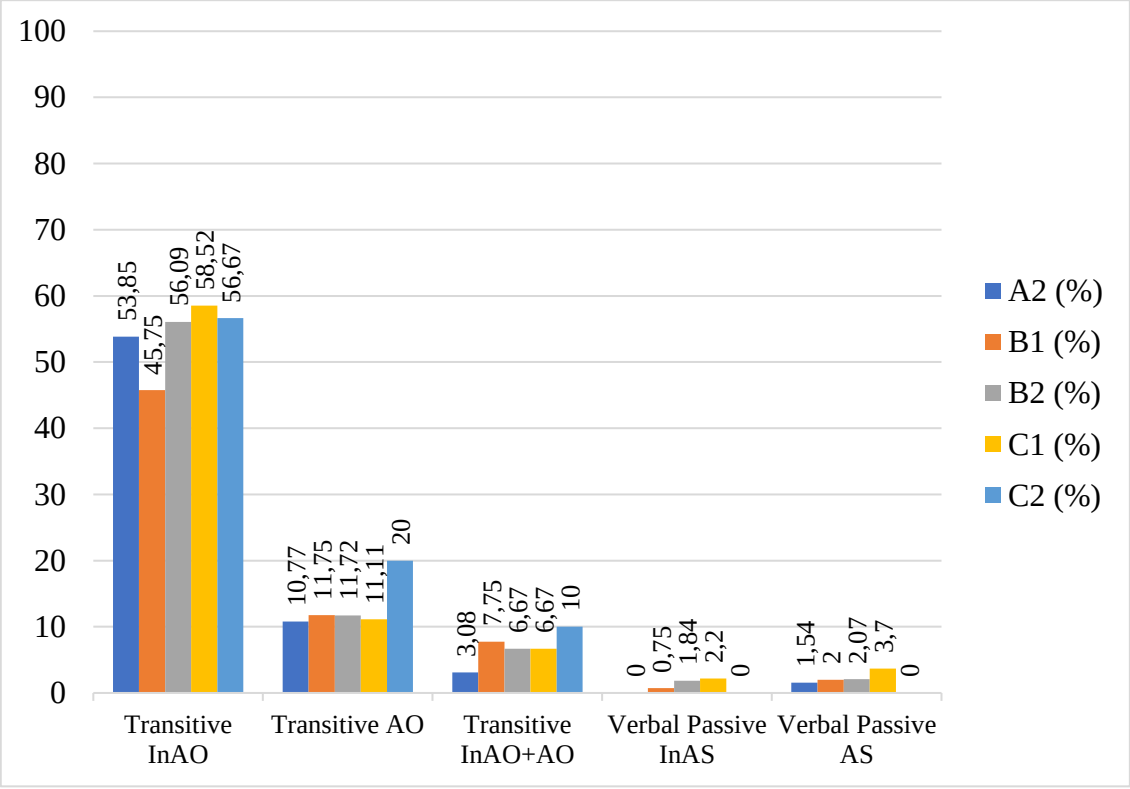


Figure 4.16. *Animacy in accurate production of SE verbs in WPT across language levels*

C1 = 3.22%; *C2* = 6.67%). The same tendency in terms of animacy was also valid for SE verbs (see Figure 4.16 above) because the use of InAO in *Transitive* form (*A2* = 53.85%; *B1* = 45.75%; *B2* = 56.09%; *C1* = 58.52%; *C2* = 56.67%) was quite more in number as compared to the production category of *Transitive* AO (*A2* = 10.77%; *B1* = 11.75%; *B2* = 11.72%; *C1* = 11.11%; *C2* = 20%) while there was almost no difference for *Verbal Passive* forms.

4.2.2. Preferences of Turkish-Speaking EFL Learners in accurate/inaccurate uses of English psych verbs

In this part, initially, the accurate uses of psych verbs as well as the different syntactic frames composed by the respondents while using these verbs accurately were reported. Following that, the examples related to the accurate uses of OE and SE individual verbs were demonstrated.

Secondly, the inaccurate uses of psych verbs as well as the syntactic frames composed by the respondents while using these verbs inaccurately were explained. Then, the related examples of those inaccurate uses of individual OE and SE verbs were reported.

4.2.2.1. The accurate uses of English psych verbs

In this part, initially, the accurate uses of SE and OE verbs as well as the syntactic frames composed by the respondents while using these verbs were reported.

The findings related to the accurately used forms of SE and OE verbs indicated a total of seven syntactic frames (Figure 4.17 below): 1) *Transitive*, 2) *Verbal Passive*, 3) *(Periphrastic) Make Causative, 4) Get Passive*, 5) *That – Clause*, 6) *To – Infinitive*, and 7) *Imperative + Ving*. The first three frames were formed with both SE and OE verbs; but the two frames (i.e., 4 & 7) were only exemplified in the use of OE verbs while the other two frames (i.e., 5 & 6) were produced with SE verbs. In parallel with this finding, OE verbs (*f* = 39.80; 16.65%) were more frequently used in the form of *Verbal Passive* than SE verbs (*f* = 7.80; 3.26%). The respondents did not show much tendency to compose sentences with the other forms; yet there were individual differences in the use of verbs which were discussed in the following lines.

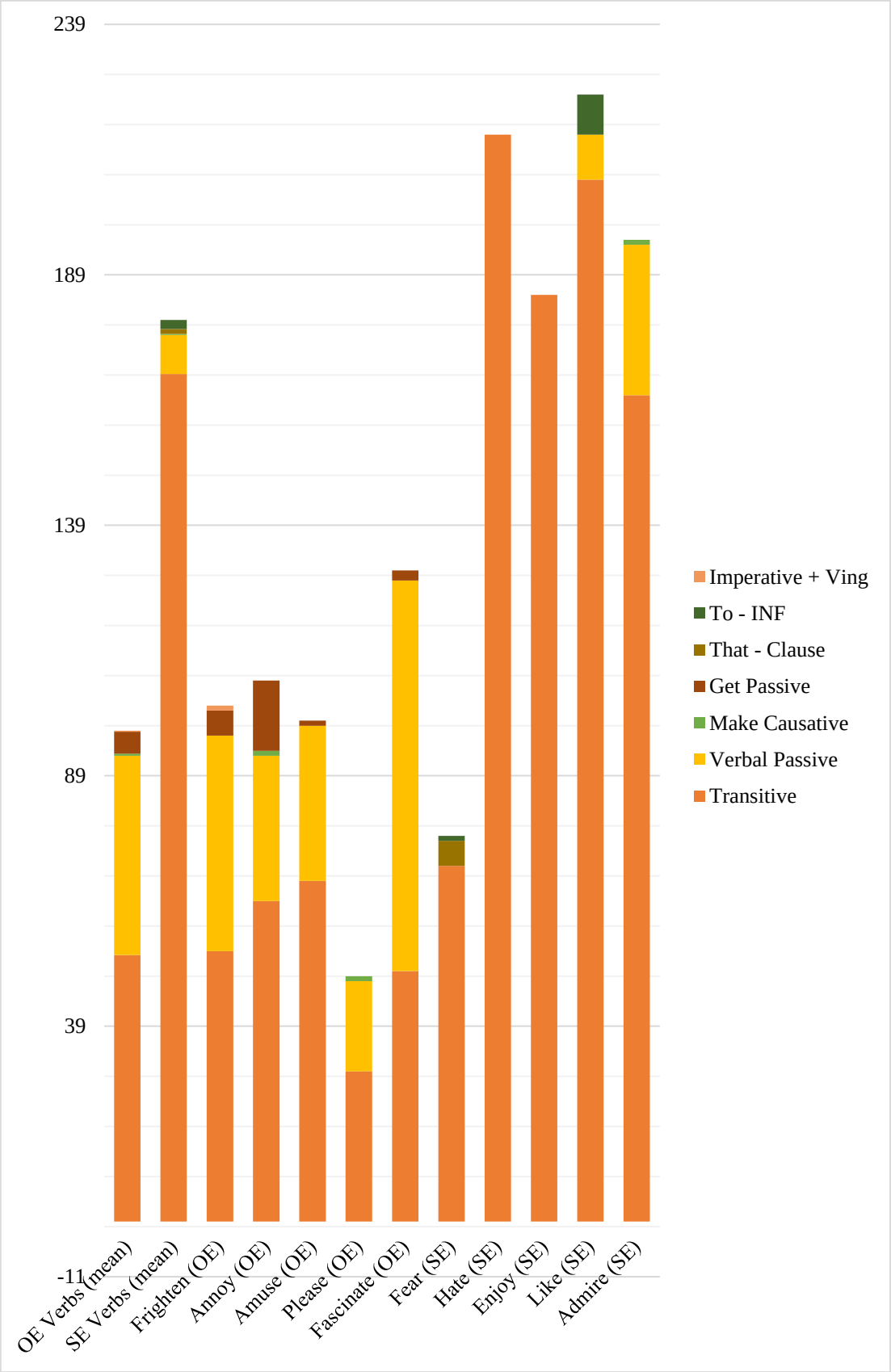


Figure 4.17. *Accurate uses of OE and SE verbs in WPT: seven subcategories*

4.2.2.1.1. The examples in the accurate uses of OE psych verbs

Among two classes of psych verbs, firstly, the accurately used frames of OE verbs were reported and exemplified. The first OE verb, *frighten*, showed the instances of four different syntactic frames: *Transitive* (*f* = 54; 22.59%), *Verbal Passive* (*f* = 43; 17.99%), *Get Passive* (*f* = 5; 2.09%) and *Imperative + Ving* (*f* = 1; 0.42%). The findings indicated that *Transitive* form (4.14) was followed by two passive forms (4.15 & 4.16) in terms of the ratio of use in which the *Experiencer* was moved to a higher position following the *Thematic Hierarchy*.

(4.14) *Transitive* (frighten) – 54 Tokens

Jimmy went hospital and needle frighten him. (P280 – A2) – 6 Tokens
The needle showed by the doctor, frightened Little Jimmy. (P213 – B1) – 18 Tokens
The doctor frightened Jimmy with a needle. (P183 – B2) – 24 Tokens
The needle frightened Jimmy. (P92 – C1) – 6 Tokens

(4.15) *Verbal Passive* (be frightened by*)* – 43 Tokens

Jimmy was frightened by needle is in hand of doctor. (P114 – A2) – 3 Tokens
Jimmy was frightened by the doctor because of the needle he gave (P123 – B1) – 8 Tokens
Little Jimmy was frightened by the needle. (P11 – B2) – 18 Tokens
Jim was frightened by the needle. (P68 - C1) – 9 Tokens
Jimmy was frightened by doctor's needle. (P219 - C2) – 5 Tokens

(4.16) *Get Passive* (get frightened) – 5 Tokens

Jimmy got frightened when he saw the needle. (P141 – B1)
Jimmy got *frighten when the doctor gave him an injection. (P182 – B1)
Jimmy got frightened when he saw the needle (P70 – B2)
When his father took him to hospital Jimmy got frightened because he had to have an injection. (P152 – B2)
Jimmy got frightened in the hospital when he saw the doctor's needle. (P248 – B2)

(4.17) *Imperative + Ving* (Stop + frightening sb*)* – 1 Token

Stop frightening the child. (P218 – C1)

Annoy, different from *frighten*, was used in its *Transitive* (*f* = 64; 26.78%) form more frequently and displayed three other frames of use that were *Verbal Passive* (*f* = 29; 12.13%), *Get Passive* (*f* = 14; 5.86%), and *(Periphrastic) Make Causative* (*f* = 1; 0.42%). *Get Passive* (4.20) in which the *Experiencer* (i.e., Martin) was transmitted into subject

position as done with *Verbal Passive* (4.19) was used both transitively (i.e., get annoyed by, get annoyed with) and intransitively (i.e., get annoyed).

(4.18) *Transitive* (annoy) – 64 Tokens

The policeman annoyed him. (P191 – A2) – 6 Tokens
Speeding ticket given by policeman to Martin annoyed Martin. (P132 – B1) – 24 Tokens
Speeding ticket annoyed Martin. (P117 - B2) – 24 Tokens
The policeman annoyed Martin. (P161 – C1) – 8 Tokens
The speeding ticket he got annoyed Martin. (P165 – C2) – 2 Tokens

(4.19) *Verbal Passive* (be annoyed by) - 29 Tokens

Martin was annoyed by the police officer. (P110 – B1) – 7 Tokens
Driving very fast, Martin was annoyed by the policeman due to speeding ticket. (P2 – B2) – 15 Tokens
Martin was annoyed by the speeding ticket that the policeman gave him (P186 – C1) – 5 Tokens
Martin was annoyed by the policeman who gave him a ticket. (P38 – C2) – 2 Tokens

(4.20) *Get Passive* (get annoyed) – 14 Tokens

When the police gave the speeding ticket to Martin he got annoyed. (P59 – B1) – 4 Tokens
Martin got annoyed by policeman. (P264 – B1) – 1 Token
Martin got annoyed because he was given a ticket for speeding by the policeman. (P96 – B2) – 5 Tokens
Martin got annoyed by the policeman. (P70 – B2) – 2 Tokens
Martin got annoyed with the police. (P121 – B2) – 1 Token
Martin got annoyed by policeman. (P209 – C1) – 1 Token

(4.21) *Periphrastic Make Causative* (make sb annoyed) – 1 Token

The thing which made Martin very annoyed was taking speeding ticket. (P258 – B1)

Amuse, the third OE verb, revealed three accurate frames of use which was dominated by *Transitive* (*f* = 68; 28.45%), and followed by *Verbal Passive* (*f* = 31; 12.97%) and *Get Passive* (*f* = 1; 0.42%):

(4.22) *Transitive* (amuse) – 68 Tokens

Leroy amused his parents. (P203 – A2) – 9 Tokens
Leroy's attempt to fix the car amused his parents. (P165 – B1) – 23 Tokens

While Leroy was travelling with his parents, their car broke down and Leroy attempted to fix it but couldn't. This amused his parents. (P41 – B2) – 22 Tokens
The car breakdown amused the parents. (P107 – C1) – 12 Tokens
Leroy's attempt at fixing the car amused his parents. (P165 – C2) – 2 Tokens

(4.23) *Verbal Passive* (be amused by) – 31 Tokens

Leroy was amused by his parents while he was trying to fix his car. (P202 - B1) – 4 Tokens
Leroy's parents were amused by Leroy's attempt. (P69 – B2) – 15 Tokens
Leroy's parents were amused by his failure. (P49 – C1) – 8 Tokens
Leroy's parents were amused by his inability to fix the car when it broke down as they travelled. (P27 – C2) – 4 Tokens

(4.24) *Get Passive* (get amused) – 1 Token

Leroy's parents got amused because of the Leroy's attempt to fix the car. (P178 – B2)

Among five OE verbs, *please*, had the least use as a verb, and those uses were categorized as *Transitive* (*f* = 30; 12.55%), *Verbal Passive* (*f* = 18; 7.53%) and *(Periphrastic) Make Causative* (*f* = 1; 0.42%) which were exemplified below:

(4.25) *Transitive* (please) – 30 Tokens

Alice's travelling about İstanbul pleased her. (P95 – B1) – 8 Tokens
Alice's trip to İstanbul pleased her so much. (P152 – B2) – 13 Tokens
İstanbul and touristic places in there pleased Alice. (P43 – C1) – Tokens
The touristic places she's seen in İstanbul pleased Alice. (P165 – C2) – 1 Token

(4.26) *Verbal Passive* (be pleased by) – 18 Tokens

Alice was pleased by her journey to İstanbul. (P56 – B1) – 3 Tokens
Alice was pleased by her tour guide (P11 – B2) – 12 Tokens
Alice was pleased by her visit to İstanbul. (P127 – C1) – 1 Token
Alice was pleased by her visit to İstanbul as it was nice to see the touristic places with an experienced tour guide. (P27 – C2) – 2 Tokens

(4.27) *Periphrastic Make Causative* (make sb pleased) – 1 Token

Seeing İstanbul make Alice pleased. (K261 – B2)

Fascinate, as the last OE verb, was produced more in *Verbal Passive* (*f* = 78; 32.64%) which was followed by *Transitive* (*f* = 50; 20.92%) and *Get Passive* (*f* = 2; 0.84%):

(4.28) *Transitive* (fascinate) – 50 Tokens

Books about cars fascinated him. (P191 – A2) – 6 Tokens
The book that was about cars was bought by Charlies mother fascinated Charlie. (P19 – B1) – 18 Tokens
His mother bought Charlie picture books about cars which fascinated him. (P35 – B2) – 18 Tokens
Books about cars fascinated Charlie. (P109 – C1) – 8 Tokens

(4.29) *Verbal Passive* (be fascinated by) – 78 Tokens

Charlie was fascinated by books about cars. (P287 – A2) – 6 Tokens
Charlie was fascinated by the books about cars. (P77 – B1) – 22 Tokens
Charlie was fascinated by the cars in the book. (P1 – B2) – 37 Tokens
Charlie was fascinated by the pictures books about cars that his mother bought. (P230 – C1) – 7 Tokens
Charlie was fascinated by the car book his mother bought him. (P165 – C2) – 6 Tokens

(4.30) *Get Passive* (get fascinated by) – 2 Tokens

Charlie got fascinated by the present of his mother. (K141 – B1)
Charlie got fascinated by the pictures of cars which in the book his mother bought. (K178 – B2)

Concerning the accurately used frames of OE verbs (Figure 4.17), it can be summarized that all OE verbs were used in the frames of *Transitive* and *Verbal Passive* with different ratios of use. The most frequently transitively used verb was *amuse*, and it was followed by *annoy*, *frighten*, *fascinate* and *please*. This finding indicates that the learners showed similar success in the use of OE verbs transitively except for *please* because it was substantially less used in that frame. As for the frame of *Verbal Passive*, *fascinate* was a prominent verb with its higher ratio of use, and it was followed by *frighten*, *amuse*, *annoy* and *please*. While *Get Passive* was a frame of use composed within four OE verbs, *please* was not among them and displayed no example of use with *Get Passive*. Among the four verbs, *annoy* was the most frequently used verb in the form of *Get Passive*, and *frighten*, *fascinate*, *amuse* followed it in a descending order. Lastly, very few examples were displayed with *annoy* and *please* in the frame of *(Periphrastic) Make Causative*.

4.2.2.1.2. The examples in the accurate uses of SE psych verbs

Among five SE verbs, *fear* was used in three forms of use: *Transitive* (*f* = 71; 29.71%), *That Clause* (*f* = 5; 2.09%) and *To-Infinitive* (*f* = 1; 0.42%). The *Transitive* use of *fear* had been exemplified in (4.31) which was also discussed more in the next parts where the findings related to animacy were presented.

(4.31) *Transitive* (fear) – 71 Tokens

Gloria feared father's discipline and, also, she was scarred of father/the idea of moving. (P266 – A2) – 21 Tokens
Gloria feared the idea of moving because of his father's discipline. (P132 - B1)
Gloria feared her father and his discipline so she felt undecided the idea of moving. (P3 – B2)
Gloria feared the idea of moving because of her father. (P131 – C1)
Gloria feared her father's reaction to the idea of her moving out. (P165 – C2)

(4.32) *That Clause* (fear that) - 5 Tokens

Gloria fears that her father's discipline will cause her get into trouble with the idea of moving to another apartment. (P152 – B2)
Gloria feared that her father might not like the idea of her moving. (P190 – B2)
Gloria feared that whether her father would like the idea of moving or not. (P217 – B2)
Gloria feared that her father may not approve it. (P209 – C1)

(4.33) *To Infinitive* (fear to) - 1 Token

She fears to move a new apartment because of her father discipline. (P181 – B2)

The following two SE verbs, *hate* and *enjoy*, were used only transitively in their accurate production; but the frequency ratio of *hate* (*f* = 217; 90.79%) was higher than the ratio of *enjoy* (f = 185; 77.41%), and the example uses of two verbs were presented below (4.34) and (4.35):

(4.34) *Transitive* (hate) – 217 Tokens

Kaneko hated soldiers and the war. (P27 – A2)
Kaneko hates the war and soldiers. (P39 - B1)
Kaneko's home was destroyed by atomic bomb. He hated war and he ran away from war and soldiers. (P16 - B2)
Kaneko hated the war. (K206 - C1)

Kaneko hated the soldiers and the war as a result of the atomic bomb that destroyed his home. (P220 – C2)

(4.35) *Transitive* (enjoy) – 185 Tokens

Jeffrey enjoyed her day. (P61 – A2)
Jeffrey and his mother enjoyed their off-day in the pool swimming. (P19 – B1)
Jeffrey enjoyed the day with his mother swimming, eating ice-cream. (P8 – B2)
Jeffrey and his mother enjoyed the off-day. (P51 – C1)
Jeffrey enjoyed his mother's off-day. (P219 - C2)

Following the three SE verbs, the data on *like* revealed that two forms of accurate use existed for this verb with the dominance of *Transitive* (*f* = 208; 87.03%) to *Verbal Passive* (*f* = 9; 3.77%). *Transitive* (4.36) as a very common production form had examples from different language levels while *Verbal Passive* (4.37) was used by the learners with three different language levels:

(4.36) *Transitive* (like) – 208 Tokens

Bosses of Wes Cherry like Solitaire computer game. (K101 – A2) – (30 Tokens)
His bosses like the game he created. (P176 – B1) – (72 Tokens)
Bosses liked the computer game which was created by Wes Cherry. (P71 - B2) – (77 Tokens)
Wes Cherry's bosses liked the Solitaire. (P109 - C1) – (23 Tokens)
Wes Cherry's bosses liked the computer game which was created by him. (P38 - C2) – (6 Tokens)

(4.37) *Verbal Passive* (be liked by) – 9 Tokens

Solitaire was liked by the bosses of Wes Cherry. (P132 – B1) – (2 Tokens)
Was Cherry's computer game was liked by his bosses and Solitare was added to Windows. (P2 - B2) – (4 Tokens)
The computer game created by Wes Cherry was liked by his bosses. (P49 – C1) – (3 Tokens)

As for admire, *Transitive* (*f* = 165; 69.04%), *Verbal Passive* (*f* = 30; 12.57%) and *Make Causative* (*f* = 1; 0.42%) was the three forms produced by the respondents in a descending order. Following the trend of other SE verbs, *Transitive* was the mostly used form of *admire* (4.38). However, the different as well as remarkable finding was that *Verbal Passive* (4.39) was found as a prominent form of use among all SE verbs with its highest ratio of frequency. Similar to *fear*, one respondent used *Make Causative* with *admire*, and therefore had the *Theme* (or *Causer*, i.e., *John's saving life of a girl*) link to

the *Subject* position and the *Experiencer* (i.e., *his schoolmates*) to the *Object* position (4.40):

(4.38) *Transitive* (admire) – 165 Tokens

She admired John's courage. (P273 – A2) – 21 Tokens
John's schoolmates admired his courage. (P91 – B1) – 51 Tokens
The schoolmates of John admired him because he saved a girl's life. (P73 – B2) – 68 Tokens
His schoolmates admire John. (K161 – C1) – 19 Tokens
John's schoolmates admired him because of his courage. (P38 – C2) – 6 Tokens

(4.39) *Verbal Passive* (be admired by) – 30 Tokens

John was admired by his schoolmates because he saved a girl's life. (K277 – A2) – 3 Tokens
John was admired by his schoolmates for saving a girl. (K155 – B1) – 9 Tokens
When John saw the drowning girl, he jumped and saved him and he was admired by his schoolmates. (P41 – B2) – 12 Tokens
John was admired by his schoolmates. (P222 - C1) – 5 Tokens

(4.40) *Make Causative* (make sb admire) – 1 Token

John's saving the life of a girl made his schoolmates admire him. (P187 – C1) – 1 Token

4.2.2.2. The inaccurate uses of English psych verbs

In this part, the inaccurate uses of SE and OE verbs as well as the syntactic frames composed by the respondents while using these verbs inaccurately had been reported.

Firstly, the inaccurate uses OE verbs as well as the syntactic frames composed by the respondents while using these verbs inaccurately had been reported. As seen in Figure 4.18 below, the findings related to OE verbs indicated a total of six syntactic frames: 1) *Transitive with Experiencer Subject (ES)*, 2) *Intransitive with ES*, 3) *Passive with Experiencer Object (EO)*, 4) *Get Passive*, 5) *That Clause (That - CL)*, and 6) *To Infinitive (To + INF)*. Among all the responses, the frequency ratio of use of OE verbs as a *Transitive* verb *with ES* (*f* = 50.08; 21.25%) was the highest one, and it was followed by *Intransitive with ES* (*f* = 14,6; 6.02%), *To + INF* (*f* = 2,6; 1.09%), *That - CL* (*f* = 0,6; 0.25%), *Passive with EO* (*f* = 0,4; 0.17%) and *Get Passive* (*f* = 0,2; 0.08%). Yet, there

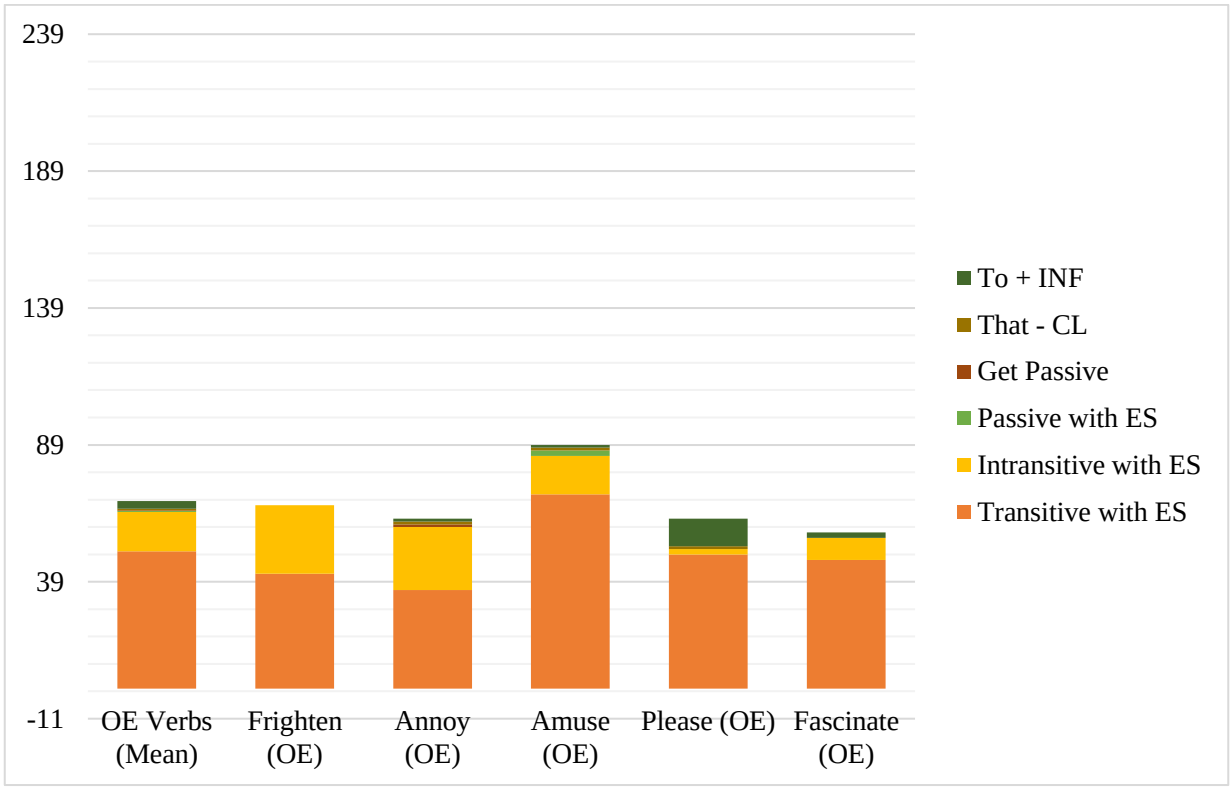


Figure 4.18. *InAccurate uses of OE verbs in WPT: six subcategories*

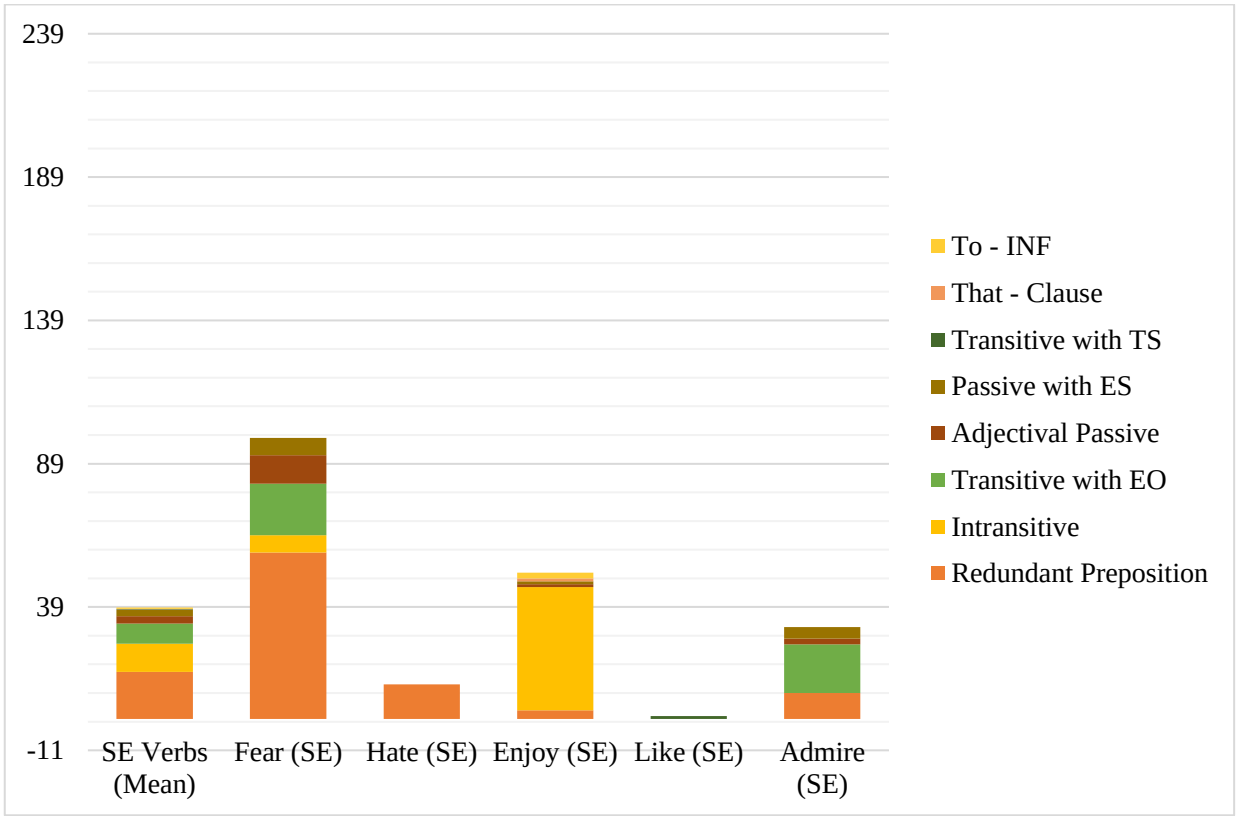


Figure 4.19. *InAccurate uses of SE verb in WPT: eight subcategories*

were individual differences in the inaccurate uses of OE verbs. For instance, five different categories of production were composed with *amuse* (i.e., 1, 2, 3, 5 & 6) and *annoy* (i.e., 1, 2, 4,5 & 6), while four different categories of production were composed with *please* (i.e., 1, 2, 5 & 6). Three categories (*i.e*., 1, 2 & 6) were exemplified in the use of *fascinate* while only two categories (*i.e.*, 1 & 2) were formed with *frighten.* The related examples for the inaccurate use of individual OE verbs had been explained below (i.e., 4.2.2.2.1).

Secondly, Figure 4.19 above showed that the findings related to the inaccurate uses of SE verbs indicated a total of eight different syntactic frames: 1) *Transitive with Theme Subject (TS),* 2) *Redundant Preposition,* 3) *Transitive with Experiencer Object (EO),* 4) *Passive with Experiencer Object (EO),* 5) *Adjectival Passive,* 6) *Intransitive,* 7) *To + INF, and* 8) *That - CL*. Among all the responses, the frequency ratio of use of SE verbs with *Redundant Preposition* (*f* = 16.2; 6.86%) was the highest one, and it was followed by *Intransitive* (*f* = 10; 4.10%), *Transitive with EO* (*f* = 7; 2.93%), *Passive with ES* (*f* = 2,2; 0.92), *Adjectival Passive* (*f* = 0,6; 0.25%), *That - CL* (*f* = 0,4; 0.17%), *Transitive with TS* (*f* = 0,2; 0.08%) and *To + INF* (*f* = 0,2; 0.08%). Yet, there were individual differences in the inaccurate uses of SE verbs. Four different categories (i.e., 2, 3, 4 & 5) were composed with *fear* and *admire while* only two categories (i.e., 1 & 2) were exemplified in the use of *like* and *hate* respectively. As for *enjoy*, six different categories were determined in the inaccurate uses of the verb that were category 2, 4, 5, 6, 7 and 8. The related examples for the use of individual verbs were explained below (i.e., 4.2.2.2.2).

4.2.2.2.1. The examples in the inaccurate uses of OE psych verbs

Frighten, the first OE verb, put two forms of inaccurate verb use in performance that were *Transitive with ES* (*f* = 42; 17.57%) and *Intransitive with ES* (*f* = 25; 10.46%). The use of *frighten* transitively with ES had been exemplified in (4.39) which occurred in three language levels (A2, B1 and B2). As the examples indicated, language learners made some errors concerning the linking of OE verbs and mapped the *Experiencer* (e.g., Jimmy) and the *Theme* (e.g., needle) incorrectly onto the subject and object positions respectively. The respondents were also in the need of using different preposition such as "from, of, with" in order to use *frighten* in its *Transitive* form. The use of that verb intransitively (4.40) was also observed in the data in which the *Experiencer* (i.e., Jimmy) was mapped onto the subject position and treated like a SE verb. The learners with four different language levels committed this error which deserved attention:

(4.39) *Transitive with ES* (frighten) – 42 Tokens

Jimmy frightened needle when he saw doctor with needle. (P23 – A2) – 9 Tokens
Jimmy has frightened from the needle. (P88 – A2) – 12 Tokens
Jimmy frightened needle. (P204 – B1) – 5 Tokens
Jimmy frightened from the needle when he saw the doctor in the hospital. (P22 – B1) – 3 Tokens
Jimmy frightened of the needle. (P31 – B1) – 4 Tokens
Jimmy frightens with injection. (P252 – B1) – 1 Token
Jimmy went to hospital to see a doctor. He frightened of doctor's needle. (P16 – B2) - 2 Tokens

(4.40) *Intransitive with ES* (frighten) – 25 Tokens

When doctor gave Jimmy an injection Jimmy frightened. (P9 – A2) – 3 Tokens
Jimmy went to hospital. When He saw the doctor with needle, he frightened. (P12 – B1) – 12 Tokens
Jimmy frightened when he saw the needle at the hospital. (P57 – B2) – 9 Tokens
Jimmy frightened when he saw needle. (P206 – C1) – 1 Token

Among five OE verbs, *annoy* put five forms of inaccurate verb use in performance that were *Transitive with ES* (*f* = 36; 15.06%), *Intransitive with ES* (*f* = 23; 10.04%), *Get Passive* (*f* = 1; 0.42%), *That - CL* (*f* = 1; 0.42%) and *To + INF* (*f* = 1; 0.42%). The use of *annoy* transitively with ES had been exemplified in (4.41) which occurred in three language levels (A2, B1 and B2). As the examples indicated, language learners made some errors concerning the linking of OE verbs and mapped the *Experiencer* (e.g., Martin) and the *Theme* (e.g., the speeding ticket) incorrectly onto the subject and object positions respectively. The respondents were also in the need of using different preposition such as "from, at, to, with, for, by" in order to use *annoy* in its transitive form. There was a need to make a note concerning the inaccurate use with "by" below which could refer to an incorrect use of verbal passivation without the "auxiliary be":

(4.41) *Transitive with ES* (annoy) – 36 Tokens

*Martin annoyed the speeding ticket. (P101 – A2) – 9 Tokens
*Martin annoyed from the speeding ticket. (P65 – A2) – 3 Tokens
*Martin annoyed at policeman. (P88 – A2) – 3 Tokens
*Martin annoyed the policeman as he gave him a ticket for speeding. (P136 – B1) – 3 Tokens
*Martin annoyed to policeman who gave him a speeding ticket. (P4 – B1) – 3 Tokens

*Martin annoyed from the police car and policeman who gave him a speeding ticket. (P22 – B1) – 1 Token

*Martin annoyed by the cops who gave him speeding ticket. (P37 – B1) – 4 Tokens

*Martin annoyed with the policeman because of the speeding ticket. (P149 – B1) – 4 Tokens

*Martin annoyed by a speed file during his driving. (P6 – B2) – 3 Tokens

*Martin annoyed with the policeman because he was given a speeding ticket. (P15 – B2) – 2 Tokens

*Martin annoyed for his penalty for speeding. (P114 – B2) – 1 Token

Among the inaccurate forms of *annoy*, the use of that verb intransitively (4.42) had considerably high frequency in which the *Experiencer* (i.e., Martin) was mapped onto the Subject position and treated like a SE verb. The learners with four different language levels committed this error which deserved attention. Another issue was that although *Get Passive* was normally an acceptable and preferred form of use with OE verbs, the addition of an inappropriate preposition (i.e., from) by the learner in B1 level transformed that use into an incorrect one and generated one more inaccurate use as shown in (4.43). As for *annoy*, the last example of inaccurate use was a *amuse + That – CL* (4.44) and *amuse + To + INF* (4.45) which were both a complementation and linking error with the *Experiencer* (i.e., Martin) in the subject position.

(4.42) *Intransitive with ES* (annoy) – 24 Tokens

*Martin annoyed because of policeman's stopped him. (P23 – A2) – 6 Tokens

*Martin annoyed because of the speeding ticket that policeman gave. (P244 – B1) – 9 Tokens

*Martin annoyed when the policeman gave him a speeding ticket. (P256 – B2) - 8 Tokens

(4.43) *Get Passive* (get annoyed) – 1 Token

*Martin got annoyed from the speeding ticket. (P176 – B1)

(4.44) *That – CL* (annoy that) – 1 Token

*Martin annoyed that the policeman gave him a ticket for his speed. (P148 – B2)

(4.45) *To + INF* (annoy to) – 1 Token

*Martin annoyed to have been punished. (P206 – C1)

The third OE verb, *amuse*, displayed five different inaccurate uses and distinguished itself with the highest frequency of inaccuracy occurrence among SE verbs. The four inaccurately used categories of this verb were the same as *annoy* that were

Transitive with ES (*f* = 71; 29.71%), *Intransitive with ES* (*f* = 14; 5.86%), *That – CL* (*f* = 1; 0.42%) and *To + INF* (*f* = 1; 0.42%) which had been exemplified in (4.46), (4.47), (4.49) and (4.50) respectively. One distinguished category for *amuse* was *Passive with EO* (*f* = 2; 0.84%) in which *amuse* was incorrectly passivized and used like a SE verb (4.48):

(4.46) *Transitive with ES* (amuse) – 71 Tokens

*Leroy's parents amused Leroy's attempt to fix the broken car. (P236 – A2) – 6 Tokens
*His parents amused with him. (P191 – A2) – 3 Tokens
*Leroy's parents amused Leroy's attempt to repair the breakdown car. (P4 – B1) – 15 Tokens
*His parents amused with Leroy's failing while he repairs car. (P29 – B1) – 11 Tokens
*Leroy's parents amused by Leroy's attempt. (P48 – B1) – 5 Tokens
*Leroy's parents amused of Leroy when he couldn't fix the car. (P77 – B1) – 2 Tokens
*Leroy's parents amused at his attempt. (P176 – B1) – 1 Token
*Leroy's parents amused to him when he attempted to fix the car but couldn't. (P179 – B1) – 1 Token
*Leroy's parents amused Leroy's attempt to fix the car. (P57 – B2) – 10 Tokens
*Parents amused with Leroy's attempt. (P119 – B2) – 5 Tokens
*His parents amused by Leroy's futile efforts. (P143 – B2) – 7 Tokens
*Leroy's parents amused of his attempt on break down. (P234 – B2) – 1 Token
*Family amused from Leroy's failure. (P94 – B2) – 1 Token
*Leroy tried to fix the car but his parents amused about this. (P245 – B2) – 1 Token
*Leroy couldn't fix his car and his parents amused it. (P209 – C1) – 1 Token
*They amused with Leroy's misfortunes. (P218 – C1) – 1 Token

(4.47) *Intransitive with ES* (amuse) – 14 Tokens

*Leroy's parent amused because of her attempt to fix car. (P23 – A2) – 9 Tokens
*After their car broke down, Leroy tried to fix it but he could not. Then his parents amused so much. (P216 – B1) – 3 Tokens
*When Leroy's car broke down, his parents amused because of Leroy's attempt. (P256 – B2) – 2 Tokens

(4.48) *Passive with ES* (amuse) – 2 Tokens

*Car breakdown on the travelling road. Leroy's attempt to fix it was not enough. It was amused by his parents. (P12 – B1)
*While travelling, the car broke down, Leroy's attempt to fix. It was amused by his family. (P3 – B2)

(4.49) *That – CL* (amuse that) – 1 Token

*Leroy's family amused that Leroy couldn't fix the car. (P139 – B1)

(4.50) *To + INF* (amuse to) – 1 Token

*Leroy's parents amuse to see Leroy's attempt to fix the car. (P159 – B2)

The fourth OE verb, *please*, displayed the similar four inaccurate uses that were *Transitive with ES* (*f* = 50; %), *Intransitive with ES* (*f* = 2; %), *To + INF* (*f* = 10; %) and *That – CL* (*f* = 1; %). The use of *please* transitively with ES had been exemplified in (4.51) which occurred in three language levels (A2, B1 and B2). As the examples indicated, language learners made some errors concerning the linking of OE verbs and mapped the *Experiencer* (e.g., Alice) and the *Theme* (e.g., her tour, her visit) incorrectly onto the subject and object positions respectively. The respondents, also, were in the need of using different prepositions such as "for, to, with, from, by" in order to use *please* in its transitive form. There was a need to make a note concerning the inaccurate use of this verb with "by" below which could refer to an incorrect use of verbal passivation without "auxiliary be".

(4.51) *Transitive with ES* (please) – 50 Tokens

*Alice pleased her tour. (P61 – A2) – 12 Tokens
*She pleases for visiting. (P88 – A2) – 3 Tokens
*Alice pleased with touristic places. (P270 – A2) – 3 Tokens
*Alice pleased to her visit to İstanbul because she visited many touristic places. (P236 – A2) – 3 Tokens
*Alice pleased the tour in İstanbul. (P37 – B1) – 6 Tokens
*Alice pleased seeing touristic places with an experienced tour guide in İstanbul. (P239 – B1) – 1 Token
*She pleased with her tour thanks to seeing many tourists. (P29 – B1) – 9 Token
*Alice pleased by the visit to İstanbul. (P31 – B1) – 3 Tokens
*Alice pleased from her İstanbul trip. (P163 – B1) – 1 Token
*Alices pleased to her visit to İstanbul's touristic places with an experienced tour guide. (P238 – B1) – 1 Token
*Alice pleased with her visit to İstanbul. (P263 – B2) – 1 Token
*Alice pleased her İstanbul visit because she could visited some many touristic places with a tour guide. (P87 – B2) – 6 Tokens

Among the inaccurate forms of *please*, the use of that verb intransitively (4.52) had a very low frequency in which the *Experiencer* (i.e., Alice) was mapped onto the subject position and treated like a SE verb, and the learners with only one language level (i.e., B1) committed this error. For this verb, the last two examples of inaccurate use were *To + INF* (*4.53)* and *That – CL* (4.54) which were both a complementation and linking error with the *Experiencer* (i.e., Alice) in the subject position:

(4.52) *Intransitive with ES* (please) – 2 Tokens

*Alice pleased in her İstanbul trip thanks to her tour guide. (P21 – B1)
*Alice pleased while visiting İstanbul. (P21 – B1)

(4.53) *To + INF* (please to) – 10 Tokens

*Alice pleased to visit İstanbul. (P75 – A2) – 3 Tokens
*Alice pleased to see touristic places in İstanbul with tour guide. (P12 – B1) – 5 Tokens
*Alice pleased to visit many places in İstanbul thanks to a guide. (P148 – B2) – 2 Tokens

(4.54) *That – CL* (please that) – 1 Token

*Alice pleased that she had a perfect tour guide. Thanks to her she saw many touristic places in İstanbul. (P149 – B1)

As a last word for the inaccurate use of OE verbs, it can be said that similar to all other OE verbs, *fascinate* also displayed the examples of *Transitive with ES* (*f* = 47; %), *Intransitive with ES* (*f* = 8; %) and *To + INF* (*f* = 2; %) among which *Transitive* (4.55) and *Intransitive* (4.56) uses of this verb exceeded the last one (4.57) in which *fascinate* was complemented with *To + INF* in the syntactic realization of a SE verb since the *Experiencer* (i.e., Charlie) was incorrectly adjusted to the subject position by two respondents:

(4.55) *Transitive with ES* (fascinate) – 47 Tokens

*Charlie fascinated books about cars. (P203 – A2) – 12 Tokens
*Charlie fascinate with the picture about cars. (P9 – A2) - 3 Tokens
*Charlie fascinated the books about cars that her mother bought for him. Because he loves cars. (P149 – B1) – 6 Tokens
*Charlie fascinated by the books about cars. (P31 – B1) – 5 Tokens
*Charlie fascinated about books about cars which his mother bought him. (P22 – B1) – 1 Token

*Charlie fascinated with the books that his mother bought him. (P110 – B1) – 5 Tokens

*Charlie fascinates to cars and his mother bought him books about cars. (P239 – B1) – 1 Token

*Charlie fascinates books about cars. (P256 – B2) – 2 Tokens

*Charlie fascinated with the books about cars which her mother bought. (P208 – B2) – 1 Token

*Charlie fascinates of books about cars. (P233 – B2) – 1 Token

*Charlie fascinates about cars so his mother brought books about cars. (P235 – B2) – 1 Token

*Charlie fascinated by the books about cars that his mother gave him. (P241 – B2) – 5 Tokens

*Charlie fascinated by the book about cars. (P206 – C1) – 1 Token

(4.56) *Intransitive with ES* (fascinate) – 8 Tokens

*He fascinated when he saw cars. (P88 – A2) – 3 Tokens

*When Charlie's mother gave him books about cars, he fascinated since he likes cars. (P12 – B1) – 3 Tokens

*Charlie is fascinating by reading books about cars. (P173 – B2) – 1 Token

(4.57) *To + INF* (fascinate to) – 2 Tokens

*Charlie fascinates to read books about the cars. (P159 – B1)

*Charlie fascinates to read books about cars. (P179 – B2)

4.2.2.2.2. The examples in the inaccurate uses of SE psych verbs

Among five SE verbs, *fear* put five forms of inaccurate verb use in performance that were *Redundant Preposition* (*f* = 58; 24.27%), *Transitive with EO* (*f* = 18; 7.53%), *Adjectival Passive* (*f* = 10; 4.18%), *Intransitive* (*f* = 6; 2.51%) and *Passive with ES* (*f* = 6; 2.51%). The use of *fear* with *Redundant Preposition*(s) had been exemplified in (4.58) which occurred in all language levels. As the examples indicated, language learners, in fact, made no errors concerning the linking of SE verbs and mapped the *Experiencer* (e.g., Gloria) and the *Theme* (e.g., father's discipline, father's reaction) correctly onto the subject and object positions. However, the respondents were in the need of using different prepositions such as "from, about, at, to, with, of, for, by" in order to use *fear* in its transitive form. The *Intransitive* use of *fear* occurred in two different language levels with only six examples (4.59). One respondent used *Make Causative* with *fear*, and therefore made the *Causer* (i.e., Gloria's father) link to the Subject position and the *Experiencer* (i.e., her) to the Object position (4.59):

(4.58) *Redundant preposition* (fear) – 57 Tokens

*Gloria feared from his father's discipline. (P47 – A2) – 9 Tokens

*Gloria feared from her father. (P130 – B1) – 9 Tokens

*The idea of moving to a new apartment with father was a nice idea but Gloria feared of father's discipline. (P12 – B1) – 7 Tokens

*Gloria feared about father's reaction about the idea of moving of her father. (P22 – B1) – 4 Tokens

*Gloria feared to her father and his discipline so, she felt undecided to move to a new apartment. (P179 – B1) – 2 Tokens

*Gloria feared at father and his discipline because of the idea of moving. (P72 – B1) – 1 Token

*Gloria's father fears with the idea of moving. (P205 – B1) – 1 Token

*Gloria feared by the idea of moving because of her father's discipline. (P31 – B1) – 1 Token

*Gloria feared from his father and his discipline. (P122 – B2) – 9 Tokens

*Gloria feared of her father's discipline and remained undecided about moving. (P73 – B2) – 6 Tokens

*Gloria feared of her father. (P107 – C1) – 4 Tokens

*She feared about the idea of moving. (P78 – C1) – 2 Tokens

*Although Gloria wanted to move to a new apartment she feared from her father. (P43 – C1) – 1 Token

*Gloria feared for her father's reaction to the idea of moving. (P220 – C2) – 1 Token

(4.59) *Intransitive* (fear) – 6 Tokens

*Gloria wanted to move to a new apartment but his father was a scary and she feared. (P33 – B1)

*Gloria had the idea of moving, but she feared because of his father and his discipline. (P238 – B1)

*Gloria's father made her fear. (P55 – B1)

*Gloria feared because of his father's discipline. (P174 – B2)

*Gloria feared because she couldn't predict how her father would react the idea of moving. (P193 – B2)

In the inaccurate use exemplified in (4.60), the respondents wrongly applied the mapping rule of OE verbs to the SE verb *fear*, and used it transitively with an *Experiencer* (i.e., Gloria) on the object position. This finding indicated that some respondents (7.53%) in B1, B2 and even in C1 levels could not differentiate between two types of psych verbs (i.e., *fear* (SE) and *frighten* (OE)):

(4.60) *Transitive with EO* (fear) – 18 Tokens

*The idea of moving feared Gloria because of her father's discipline. (P89 – B1) – 10 Tokens
*The idea of moving feared Gloria because of her father's strict discipline. (P170 – B2) – 6 Tokens
*The idea of moving feared Gloria. (P109 – C1) – 2 Tokens

In the next inaccurate use (4.61), the respondents (4.18%) overgeneralized the rule of *Adjectival Passive*s of OE verbs to SE verbs, and formed passivized sentences with accompanied prepositions (e.g., about, from, at, of), in which the *Experiencer* (i.e., Gloria) took place in subject position.

(4.61) *Adjectival Passive* (*feared) – 10 Tokens

*Gloria was feared about her father and father's discipline on the idea of moving. (P236 – A2)
*She was feared. (P240 – B1)
*Gloria was feared from her father and father's discipline. (P48 – B1)
*Because father was not known how father's reaction would be, Gloria was feared at the idea of moving. (P215 – B2)
*Gloria was feared of her father's discipline. (P128 – B2)
*Gloria is feared from her father and his discipline so she is not sure about the idea of moving. (P180 – B2)
*Gloria is feared of her father. (P161 – C1)
*She was feared of getting too restricted by her father. (P51 – C1)

The sentences extracted in (4.62) below marked another inaccurate use in which the *Experiencer* was again positioned as the subject with a passivized SE verb. It was hard to accurately comment on the four examples (6 tokens) concerning whether the respondents intended to form verbal passives or adjectival passives with *fear* because of the absence of a preposition. Yet, an example of verbal passivization was observed in the third line where the respondent used *fear* as if it was an OE verb and assigned the *Experiencer* to the subject position via verbal passivization:

(4.62) *Passive with ES* (*be feared) – 6 Tokens

*She was feared father's discipline. (P9 – A2) – 3 Tokens
*Gloria is feared the idea of moving because of her father's discipline. (P155 – B1) – 1 Token
*Gloria was feared by her father. (P252 – B1) - 1 Token

*Gloria was not sure to move because she was feared her father. (P1 – B2) – 1 Token

Diverging from *fear*, *hate* showed very few numbers of inaccurate use and all of them were formed with the addition of a *Redundant Preposition* (*f* = 12; 5.02%), which meant that the respondents made no errors concerning the linking of SE verbs, and correctly mapped the *Experiencer* (e.g., Kaneko) and the *Theme* (e.g., war, atomic bomb) onto the subject and object positions. They, on the contrary, sook after a preposition so as to use *hate* in its transitive form. As detailed in (4.63), "from" was the most frequently used one among three different prepositions (i.e., from, of, about):

(4.63) *Redundant preposition* (hate) – 12 Tokens

*Kaneko hates from the wars. (P47 – A2) – 3 Tokens
*After atomic bomb attack, Kaneko hated from living in city which full of war and soldiers. (P258 – B1) – 5 Tokens
*Kaneko hated of atomic bomb and war because of hurting soldiers. (P22 – B1) – 1 Token
*Kaneko hates about bomb and wars because they destroyed his house. (P59 – B1) – 1 Token
*He hate from the war, so he moved to the mountains. (P245 – B2) – 2 Tokens

The inaccurate use range of *enjoy* was wider than the other four SE verbs which included *Intransitive* (*f* = 43; 17.99%), *Redundant Preposition* (*f* = 3; 1.26%), *To + INF* (*f* = 2; 0.84%), *That - CL* (*f* = 1; 0.42%), *Adjectival Passive* (*f* = 1; 0.42%) and *Passive with ES* (*f* = 1; 0.42%). *Enjoy* was the only verb among other SE verbs used intransitively, and the frequency of this inaccurate use corresponded to a considerable value, which deserved attention:

(4.64) *Intransitive* (enjoy) – 43 Tokens

*They enjoyed so much. (P47 – A2) – 3 Tokens
*Jeffrey enjoyed with her mother when they were swimming. (P23 – A2) – 12 Tokens
*Jeffrey enjoyed while spending time with his mother. (P37 – B1) – 18 Tokens
*Jeffrey enjoyed with her mother. (P95 – B1)
*Jeffrey and his mom enjoyed in her mom's off-day by swimming. (P2 – B2) – 9 Tokens
*Jeffrey enjoyed with his mother on the off-day by swimming. (P250 – B2)
*Jeffrey enjoyed with his mom. (P206 – C1) – 1 Token

Similar to *fear* and *hate*, *enjoy* was also accompanied with two different *Redundant Prepositions* (i.e., to and with) in its transitive use (4.65). Although they did not signal any linking problem and were very rare, two different complementation errors were also detected in the data in which *enjoy + To + INF* (4.66) and *enjoy + That – CL* (4.67) were the aforementioned complements produced:

(4.65) *Redundant Preposition* (enjoy) – 3 Tokens

*Jeffrey enjoyed to swimming. (P53 – B1)
*Jeffrey enjoy with ice-cream. (P119 – B2)
*Jeffrey's mother enjoyed with swimming in the off-day. (P195 – B2)

(4.66) *To + INF* (enjoy to) – 2 Tokens

*Jeffrey enjoyed to spent time with his mom. (P148 – B2)
*Jeffrey's mother enjoys to spend her off-day with him. (P177 – B2)

(4.67) *That - CL* (enjoy that) – 1 Token

*Jeffrey enjoyed that his mother spent her off-day by swimming with him. (P238 – B1)

In the next inaccurate use (4.68), one respondent overgeneralized the rule of *Adjectival Passives* of OE verbs to SE verbs and formed passivized sentences with the accompanied preposition "with" in which the *Experiencer* (i.e., Jeffrey) took place in subject position. The sentences extracted in (4.69) marked another inaccurate use in which the *Experiencer* was again positioned as subject with a passivized SE verb. It was hard to accurately comment on this example concerning whether the respondent intended to form verbal passives or adjectival passives with *enjoy*, as well, because there was no preposition following the verb. However, it was clear that these inaccurate uses were the proxies of the errors related to the linking of SE verbs:

(4.68) *Adjectival Passive* (*enjoyed) – 1 Token

*Jeffrey was enjoyed with his mother. (P64 – B1)

(4.69) *Passive with ES* (enjoy) – 1 Token

*Jeffrey was enjoyed swimming. (P89 – B1)

As for *like*, only one inaccurate use was observed which was *Transitive with TS* (*f* = 1; 0.42%). In the example (4.70), the *Theme* (i.e., Wes Cherry's game) was mapped on the subject position as the verbal passivization would require; yet the "auxiliary be" was missing:

(4.70) *Transitive with TS* (like) – 1 Token

*As Wes Cherry's game liked by his bosses, the game wanted to add to Windows in 1990. (P258 – B1)

The last SE verb, *admire*, displayed the examples of four inaccurate forms of uses: *Transitive with EO* (*f* = 17*;* 7.11%), *Redundant Preposition* (*f* = 9*;* 3.77%), *Passive with ES* (*f* = 4*;*1.67%) and *Adjectival Passive* (*f* = 2*;* 0.84%). In the misuse exemplified in (4.71), the respondents wrongly applied the mapping rule of OE verbs to the SE verb *admire*, and used it transitively with an *Experiencer* (e.g., schoolmates, the girl) on the object position. This finding indicated that some respondents in A2, B1 and B2 levels could not differentiate between two types of psych verbs (i.e., *admire* (SE) and *fascinate* (OE)) and did linking errors:

(4.71) *Transitive with EO* (admire) – 17 Tokens

*John admired schoolmates. (P23 – A2) – 6 Tokens
*John admired the girl in the lake by saving her life. (P262 – B1) – 7 Tokens
*John's courage admired his schoolmates. (P221 – B2) – 4 Tokens

The use of *admire* with *Redundant Preposition*(s) had been exemplified in (4.72) which occurred in all language levels. As the examples indicated, language learners, in fact, made no errors concerning the linking of SE verbs and mapped the *Experiencer* (e.g., his schoolmates, John's schoolmates) and the *Theme* (i.e., him) correctly onto the subject and object positions. However, the respondents were in the need of using "to" for using *admire* in its transitive form:

(4.72) *Redundant Preposition* (admire) – 9 Tokens

*Because of John's courage, his schoolmates admire to him. (P33 - B1) – 8 Tokens
*John's schoolmates admired to him because he saved the drowning girl. (P173 – B2) – 1 Token

In the next and rare examples of inaccurate use (4.73), the incorrect passivization of *admire* was in question. The respondents with A2 and B1 levels made some errors concerning the linking of SE verbs and mapped the *Experiencer* (e.g., his schoolmates, John's schoolmates) onto the subject position and accompanied it with a passivized SE verb, which was not coherent with the context provided to the students in the WPT in which the one that was *admire*d was *John* and the ones who *admire*d were *his schoolmates*. In the next inaccurate use (4.74), the respondents overgeneralized the rule of adjectival passives of OE verbs to SE verbs, and formed passivized sentences with accompanied prepositions (e.g., to, of), in which the *Experiencer* (i.e., John's schoolmates) was adjusted to the subject position:

(4.73) *Passive with ES* (admire) – 4 Tokens

*His schoolmates <u>are admired</u> John who rescued a drowning girl. (P10 – A2) – 3 Tokens
*John's schoolmates <u>are admired</u> him. (P74 – B1) – 1 Token

(4.74) *Adjectival Passive* (admire) – 2 Tokens

*John's schoolmates <u>are admired to</u> him because he saved the girl. (P53 – B1)
*John <u>was admired of</u> his courage. (P69 – B2)

All in all, it was observed that the EFL learners of the current study revealed different accurate and inaccurate uses of OE and SE psych verbs with various syntactic frames which were unified, demonstrated and exemplified in Table 4.18 on the next page. In the next chapter, the results of the study were discussed with respect to the related literature, the research questions raised and the assumptions proposed for the current research as well as some pedagogical and methodological implications were provided for the future teaching/learning and research environments.

Table 4.18. *Examples of major and minor categories of production in WPT*

VERB	Accurate (SE)	Transitive	AO	Gloria *feared* her father.
			InAO	Gloria *feared* the idea of moving.
			AO + InAO	Gloria *feared* her father and his discipline.
		Verbal Passive	AS	John *was admired by* his schoolmates.
			InAS	John's courage *was admired by* his schoolmates.
			AS + InAS	John and his courage *were admired by* his schoolmates.
		Make Causative		John's saving the life of a girl *made* his schoolmates *admire* him.
		That - Clause		Gloria *feared that* her father might not like the idea of her moving.
		To - INF		She *feared to* move to a new apartment because of her father discipline.
	Accurate (OE)	Transitive	AS	The doctor *frightened* Little Jimmy.
			InAS	The needle *frightened* Little Jimmy.
			AS + InAS	The doctor and the needle *frightened* Little Jimmy.
		Verbal Passive	AO	Little Jimmy *was frightened by* the doctor.
			InAO	Little Jimmy *was frightened by* the needle.
			AO + InAO	Little Jimmy *was frightened by* the doctor and the needle.
		(Periphrastic) Make Causative		The needle made Little Jimmy frightened.
		Get Passive		Jimmy *got frightened* when he saw the needle.
		Imperative + Ving		Stop *frightening* Little Jimmy.
	InAccurate (SE)	Transitive with TS		*Wes Cherry's game *liked by* his bosses,
		Redundant Preposition		*Gloria *feared about* her father's discipline.
		Transitive with EO		*The idea of moving f*eared* Gloria.
		Passive with ES		*Gloria *was feared by* her father and his discipline.
		Adjectival Passive		*Gloria *was feared of* her father's discipline.
		Intransitive		*Gloria *feared* because of his father and his discipline.
		That - Clause		*Jeffrey *enjoyed that* his mother spent her off-day with him.
		To + INF		*Jeffrey *enjoyed to spent* time with his mom.
	InAccurate (OE)	Transitive with ES		*Jimmy *frightened* the needle.
		Intransitive with ES		*Jimmy *frightened* when he saw needle.
		Passive with ES		*Leroy's attempt to fix the car *was amused by* his family.
		Get Passive		*Martin *got annoyed from* the speeding ticket.
		That - CL		*Alice *pleased that* she had a perfect tour guide.
		To + INF		*Alice *pleased to* visit İstanbul.

5. DISCUSSION, CONCLUSION AND SUGGESTIONS

5.1. Introduction

ln the previous chapter, the results of the experiment conducted with the AJT and PIT as well as the production frames of the participants revealed through the WPT were reported. In this chapter, firstly, these results were discussed in terms of the assumptions adopted as well as the presence of the zero CAUS (Chen, 1996; Pesetsky, 1995), the linking properties of psych verbs, the role of the animacy, L1 transfer to L2 lexis, the availability of UG (i.e., *Thematic Hierarchy* & UTAH) in L2 acquisition, avoidance and optionality. Following that, in the Conclusion part, the critical findings were summarized. Finally, the contributions of the current work in terms of pedagogical implications were discussed, and some possible suggestions for further research were outlined.

5.2. Discussion

In this part, the results of four tasks were discussed in favor of the research questions, and then some explanations for the results were provided. One of the main assumptions of the current study predicted that L2 learners would initially fail to recognize the existence of the zero CAUS (Chen, 1996 & Pesetsky, 1995). In that case, OE verbs would be more difficult than SE verbs in terms of mapping properties due to the presence of the zero CAUS in the former but not in the latter (i.e., OE verbs are more difficult than SE verbs.).

Based on the mean scores of all levels, the results obtained from PIT showed that L2 learners were in general slightly more accurate on OE verbs than SE verbs in comprehension level. However, the particular A2 level results of PIT revealed that the L2 learners did have some difficulty with OE verbs. This result was also confirmed by AJT which indicated that the participants in A2 level were more accurate with SE verbs than OE verbs. As it was found that the A2 level Turkish learners were significantly more accurate on SE verbs than OE verbs across the two relevant tasks, it was possible to talk about the assumption that acquiring the presence of the zero CAUS was problematic for the Turkish L2 learners of English in the early stages and in the comprehension level. These findings supported the hypothesis that OE verbs were more difficult than SE verbs in the early stages of L2 acquisition (i.e., A2 level), and this result replicated what was found in Chen (1996) and Hsin & Lin (2006) with Chinese, Sato (2005) with Japanese, White et. al (1999) with Japanese and Zhang (2007) with Chinese L2 learners of English.

Furthermore, the results from PIT indicated that B1 level learners treated OE and SE verbs similarly which was also valid for C2 level learners. When the language levels were compared, C2 level learners were more accurate than B1 level learners for both types of verbs. That is while there was no significant distinction between the accuracy of OE and SE psych verbs within these levels themselves, there was significant differences between the levels (for OE verbs in AJT and for SE verbs in PJT), which suggested that OE and SE verbs could be acquired to the extent that those language levels could arrive at.

When the results of the B2 and C1 level L2 learners who performed more accurately on OE verbs than SE verbs in PIT is considered, the results seem to challenge the underlying assumption (i.e., OE verbs are more difficult than SE verbs) of the study; however, it was found that the main problem the two levels had with SE verbs was restricted to one verb namely *fear* (see Table 12.2 in Appendix 12). When *fear* was excluded from SE verb class, the participants no longer showed any worse accuracy in comprehension level on this verb class. Although it was still not very clear why the particular verb *fear* caused more problems with the learners, the assumption that OE verbs were more difficult than SE verbs still held. But, in a way, the inaccuracy for the verb *fear* was also observed in the studies with other L2 data.

As it was found in Chen (1996, L1: French), White et al. (1999, L1: French, Malagasy & Spanish) and Zhang (2007, L1: Chinese), other L2 learners had also experienced some difficulty related to *fear*, even though *fear* existed in the first thousand level of the BNC Headword List (i.e., 1000). However, the EVP which was composed of the L2 written production data with different L1 backgrounds (see Table 3.2 in the Methodology part for the ranks in the different lists) indicated that *fear* was used by the L2 learners who were at least in the B2 level and above, which meant that the use of *fear* was not observed in the written compositions of the earlier levels that were A1, A2 and B1 levels. Therefore, the empirical studies and the written data of the learners in the EVP displayed similar results as the findings of the current study that *fear* had been a challenging verb to acquire by the L2 learners of English.

Based on the mean scores, the results obtained from AJT showed that L2 learners were in general slightly more accurate on SE verbs than OE verbs in comprehension level. The results of AJT, in particular, revealed that A2, B1 and C1 level learners did have some difficulty with OE verbs because their accuracy levels in AJT were lower as

compared to the ones on SE verbs. Therefore, the assumption that acquiring the presence of the zero CAUS was problematic for the Turkish L2 learners of English in comprehension level was still valid as for the learners in different language levels. These findings supported the hypothesis that OE verbs were more difficult than SE verbs in the initial (i.e., A2, B1) and later stages (i.e., C1) of L2 acquisition however, the severity of this difficulty decreased as the language level increased. The results from B2 and C2 level learners in AJT who treated the two types of psych verbs similarly suggested that OE and SE verbs could be acquired to the extent that the learners in these language levels could arrive at because C2 level learners were more accurate than B2 levels for both types of verbs.

Regarding the linking properties with psych verbs, it had been predicted that when zero CAUS was not recognized with OE verbs, the theta role of Causer might not be noticed, consequently L2 learners could project the *Experiencer* to *Subject* position accepting such sentences as **Mary frightened the snowstorm* as true and grammatical. This was exactly what was found from the L2 learners' errors in judging pictures in PIT and in accepting the ungrammatical OE sentences in AJT. As SE verbs contained no zero CAUS, no such problems should occur with respect to mapping arguments to structural positions. This was also what was found in the current study: errors such as "**The weather hated Tom*." were almost never made by the learners except for lower-level Turkish L2 learners and the verb *fear*, which was consistent with the findings of Chen (1996).

The secondary assumption of the study predicted that animacy (i.e., Animacy adds more difficulty.) interacting with the zero CAUS should constitute another source of difficulty. The result of the PIT which revealed that the Turkish L2 learners in A2 level showed significantly better performance on OE verbs with inanimate subjects than OE with animate subjects apparently supported this assumption at the early stages of language acquisition (as in Chen (1996)). As for the SE verbs, the results indicated a significant difference for B1 level participants because those participants' performance on SE verbs with inanimate object was significantly better. This suggested that animacy could be a potential problem for psych verbs in general, not just for the particular OE verb class. Another hypothesis was that animacy was being employed as a hint to the argument structure in some way.

One contradictory result concerning animacy belonged to A2 level learners since SE verbs taking animate objects were treated significantly less accurately than SE verbs

taking inanimate objects by these learners. This result was especially observed with the verb *fear,* and to some extent with *hate, like* and a*dmire* (see Table 7.2 in the Appendix 7 for the mean scores), which indicated that directing the emotional state to an animate *Object* was found more natural by the A2 level learners than directing the emotional state to an inanimate object.

When the data from WPT were examined, five major categories of production with OE and SE verbs were determined that were *verb, adjective, adverb, noun* and *no answer*. The distribution of those categories indicated that while over 90% of the participants used SE verbs in its verb form, but the situation was different for OE verbs because this verb class was frequently used in its adjectivized form. The ratio of using OE verbs as an adjective was especially quite higher for *please*. A similar escape was observed with just one SE verb, *fear,* which was used as a noun by the participants. As stated in the lines above, the verb, *fear,* was also found challenging in PIT and AJT, as well. Therefore, the results of WPT in the production level seemed to confirm the difficulty experienced by the participants related to *fear* in the comprehension level. The realization of OE verbs as adjectives or SE verb, *fear*, as a noun in the production data recalled the strategy, avoidance (Kellerman, 1977; Schachter, 1974). As defined by Tavakoli (2012), when learners of L2 try to avoid employing structures difficult to produce, they engage in avoidance behavior. In adult L2 acquisition, some scholars have linked structural and lexical avoidance to the following elements in the literature (Laufer & Eliasson, 1993, p. 37):

1) difference between L1 and L2
2) identity between L1 and L2
3) inherent complexity of the avoided item or construction

Specific to OE psych verbs, the source of the avoidance strategy applied by the participants could initially be attributed to linking properties and difference between L1 and L2. For example, when an OE verb was used as an adjective (i.e., *Jimmy was frightened of the needle.*), the L2 learners were able to map the *Experiencer* to the subject and the *Theme* to the object position, in accordance with UTAH, and *Experiencer* higher than *Theme,* in accordance with the *Thematic Hierarchy*.

Alongside avoidance, based on the mean scores, the results obtained from WPT showed that L2 learners were, as a whole, more accurate on the use of SE verbs than OE verbs in production level, which replicated the results of Hyon Dok & Hee-Sook (2011) with Korean L2 learners of English. The use of SE verbs accurately by the participants was twice more than the use of OE verbs. This result was also confirmed in all language levels. The participants in five different language levels performed more accurately while using SE verbs. Therefore, it was possible to talk about the assumption that acquiring the presence of the zero CAUS (Chen, 1996; Pesetsky, 1995) was problematic for the Turkish L2 learners of English in all stages at the production level (i.e., OE verbs are more difficult than SE verbs). However, the difference between the production performances of C2 level learners on OE and SE verbs was very limited (see Figure 4.10 & Figure 4.11 in Results). This result indicated that OE and SE verbs could be acquired in the production level when Turkish L2 learners arrived at their later stages of language development. When the levels of comprehension and production were analyzed and contrasted in terms of the accuracy of OE and SE verbs, the results indicated that while L2 learners showed more consistent results at the level of production, they showed more variable results at the level of comprehension, especially because of some individual SE verbs (e.g., *fear*).

(5.1) İğne çocuğu kork – ut – tu.
The needle the child-ACC fear – CAUS – past

(5.2) Çocuk kork-tu.
The child fear-past.

In addition to the errors conducted with OE verbs, L1 transfer was also reflected in the participants' accurate use of (P*eriphrastic*) *Make Causative* (e.g, Seeing İstanbul make(s) Alice pleased.). Recalling that the transitive form of psych verbs in Turkish had an overt causative suffix (5.1), the potential case of positive transfer from L1 to L2 would involve the periphrastic structure. In some examples of the production task (i.e., WPT), the Turkish learners had transferred the causative morphological pattern into English using *Make Causative* although they even had not encountered this construction in the comprehension tasks (i.e., PIT & AJT). In the experimental study on low-intermediate Turkish L2 learners, Montrul (2001c) also found the same result stating that the L2

learners rejected zero-derived transitive form (e.g., The lion frightened the hunter) accepting instead *Make Causative* (e.g., The lion made the hunter frightened) more.

These Turkish L2 learner group, in the study of Montrul (2001c), also accepted intransitive form of OE psych verbs (e.g., *The hunter frightened.) as grammatical. In the production data of the current study, it was also possible to see the examples of this construction, which was coded as *Intransitive with ES* (e.g., Jimmy frightened when he saw needle.), especially for the participants in A2 and B1 levels. As seen in (5.2), the base form of the verb expressing the psychological state *fear* corresponds to one verb in Turkish (i.e., *kork- / to fear*), and causativity is expressed morphologically (5.1). According to the classification of Turkish psych verbs by İbe (2004), *kork- (to fear)* is among the "non-derived simple base" (p. 88) and Type 1 (fear type, p. 96) psych verbs. And most of those verbs were considered intransitive (İbe, 2004). For this reason, the inaccurate use of the construction, *Intransitive with ES* (e.g., Jimmy frightened when he saw needle.) in the current study, appeared to reflect the difference between the morphological features in L1 (i.e., Turkish) and target language (i.e., English) through which the argument structure change. The learners of the current study seemed to transfer the intransitive pattern of Turkish into English for OE psych verbs (i.e., negative transfer/interference). We can also explain the unacceptable production patterns of Turkish L2 learners with English psych verbs through object deletion because it is possible to delete the object of Turkish psych verbs by referring to related context. But this is not possible in English. As explained by Montrul (2001c), OE psych verbs in Turkish exhibit causative alternation, in other words, the transitive form has an overt suffix (e.g., *kork-ut-* (fear-CAUS) while the inchoative form is morphologically simple. Also, the inchoative form is grammatical in Turkish even when it drops its object (e.g., Jimmy kork-tu / Jimmy fear-past)). Therefore, Turkish L2 learners can use the characteristics of their L1 by deleting the objects of psych verbs in English.

The participants of the current study used OE verbs grammatically with *get* in its inchoative (Haegeman, 1985) use intransitively, which was coded as *Get Passive*. The idea was that if a morpheme's formal properties were given explicitly in the L1 but not in the L2, L2 learners would struggle with zero-morphemes and try to transfer the formal elements of the lexical item onto a surrogate L2-specific phonological form (Montrul, 2001c). This morphological acquisition pattern was observed with psych verbs in the use of *Get Passive* in the production data; but this construction was never observed in the

production of A2 level learners which was similar to the results of Montrul (2001c) with low-intermediate level Turkish L2 learners at the comprehension level. In Montrul (2001c), most low-intermediate Turkish L2 learners rated the sentences with *Get Passive* as ungrammatical.

In our study, the realization of *Get Passive* (e.g., Jimmy got frightened when he saw the needle.) in the production started to be observed (see the title 4.2.2.1) as the level of L2 learners increased, which could be interpreted as the learners had become composing grammatical sentences with *Get* and showed more native likeness in the later stages of acquisition. As the profile of the learners in Montrul (2001c) was limited to low-intermediate learners, it was not possible to make a comparison between the results of the current study and her study in terms of the performances of higher-level learners (i.e., B2, C1 & C2).

(5.3)	Çocuk	iğne-den	kork-tu.
	The child	the needle – *ABL*	fear – *past*

The transfer of L1 was also observed in the production of SE verbs, especially in the production of the verb *fear*, and even of the verb *hate.* Ibe (2004) classified transitive *kork- (to fear; p. 102)* and *nefret et- (to hate; p. 103*) as the Type 3b psych verbs which "have ablative marked Themes" (p. 102, i.e., iğne-den / the needle – ABL), and these *Themes* may be interpreted as the source or cause of the mental or emotional state according to her. In those examples, no errors related to argument structure existed, which meant that the *Experiencer* was correctly linked to the *Subject* position, and *Theme* to the *Object*. But there was redundant use of prepositions which referred to the transfer of L1 morphological features to L2. The ungrammatical examples with *hate* (e.g., *Kaneko hates from the wars.) were only composed by A2, B1 and B2 level learners while the ones with *fear* were constructed by even C1 (e.g., *Gloria feared of her father.) and C2 level learners (i.e., *Gloria feared for her father's reaction to the idea of moving.). But, a kind of change was observed in terms of preposition preference of the learners, which seemed more L2-specific in the examples of higher-level learners. As the examples demonstrated, the Turkish L2 learners transferred the ablative (ABL) case (5.3) in their L1 to the L2 in the form of different prepositions (e.g., from, of, for).

In the comprehension and production data of the Turkish L2 learners, some overgeneralizations errors were also encountered. For instance, the verb *fear* was treated as *frighten* in the constructions of *Transitive with EO* (e.g., *The idea of moving feared Gloria.), *Adjectival Passive* (e.g., *Gloria is feared of her father.), and *Passive with ES* (e.g., *Gloria was feared by her father.). The verbs *admire* was treated as *fascinate* in the constructions of *Transitive with EO* (e.g., *John's courage admired his schoolmates.) and *Adjectival Passive* (*John was admired of his courage.). Similar errors were also made by the L2 learners with different L1s in the comprehension (Chen, 1996; L1: Chinese & White et al, 1999; L1: Malagasy, Spanish, Japanese) and production level (Zhang, 2007; L1: Chinese). Since zero CAUS in OE verbs is acquired in the absence of negative evidence, overgeneralization errors can be pertinent to the learnability problem. Overgeneralization errors of zero CAUS can be signs of sensitivity to zero CAUS as human mind has a natural capacity to generalize and has a tendency to overextend it (Zhang, 2007). Except the verb *fear*, the overgeneralization errors of zero CAUS occurred with the SE verbs *admire* and *enjoy*, in the production data of A2 and B levels. However, such errors did not occur in C1 or C2 groups' production data. Only the ones with *fear* occurred in data of advanced group, and this verb was problematic for some participants in the comprehension data as well because L2 learners of the current and some other studies tended to mix the two up (e.g., Chen, 1996; White et al., 1999; Zhang, 2007).

As a matter of fact, there were some SE verbs in the comprehension data accepted as grammatical and in the production data produced ungrammatically, and they were even problematic for some advanced learners (e.g, *fear, admire).* The overgeneralization errors in the advanced group may remind us of that L2 acquisition may only be partial success. Hopefully, positive evidence would eventually expunge these overgeneralization errors from interlanguage, as the performance of higher-level learners of the current study showed, which was consistent with the results of Chen (1996), Juffs (1996a) and Zhang (2007).

There was another issue to discuss which was the availability of UG with respect to L2 acquisition of psych verbs. Regarding this general issue, the present work could not make a comprehensive conclusion. On the basis of the results on the argument structure of SE verbs versus the argument structure of OE verbs, it could be concluded that principles like the UTAH, and the *Thematic Hierarchy* were available to L2 learners to some extent. The L2 learners' IL grammar was quite systematic with respect to the

semantics-syntax linkage concerning both types of verbs. Except the verb *fear* and with a lessening ratio, *enjoy*, the participants did not accept the ungrammatical sentences for SE verbs in PIT and AJT. But more participants, especially the ones in A2 level, and some in B2 accepted such ungrammatical sentences (i.e., **Mary frightened the snowstorm.* / **Tom annoyed the weather*.) as true (see Table 7.3 & 7.5 in Appendix 7 for the means of individual items in PIT & AJT). Therefore, when problems occurred, they were mostly with OE verb class, which was argued above as the failure to recognize the zero CAUS. It seemed that there was some evidence for UG regarding the argument structure. But the question about to what extent UG was activated in the learning process with respect to the L2 acquisition of English psych predicates was still open.

The framework of Generative Grammar (GR) had paid attention to the fact that children acquire grammar that is influenced and shaped by the input in a rather short period. In other words, it was thought there was a discrepancy between the utterances a child was exposed to and the grammatical knowledge s(he) acquires. This was known as the logical problem of language acquisition, or the problem of the poverty of stimulus. The research on the acquisition of argument structure provides a situation in which the logical problem occurred because L2 learners did not receive input on verbs in all their possible syntactic structures as the study of Juffs (1998) claimed. Under this assumption, the accessibility of UG principles and parameters in SLA had been debated. White (1989, pp. 48-49), for example, gave five logical possibilities:

> a) UG is accessible in L2 acquisition and functions in the same way as it does in L1 acquisition
> b) UG is usually accessible, although L2 learners initially transfer the settings of the L1.
> c) UG is accessible only via the settings of the L1.
> d) UG is accessible but does not function exactly as it does in L1 acquisition.
> e) UG is not accessible in L2 acquisition.

Before finding the logical possibility of the current study, it would be ideal to remember the performances of the L2 learners. The performance of the participants in A2 level showed that these learners ~~t~~reated psych verbs just like their L1 counterparts in WPT. More specifically, their dominant construction for SE verbs were *Transitive* (e.g., Bosses liked the computer game.), while the dominant construction was the inaccurate **Transitive with ES* (e.g., *Jimmy frightened from the needle.) for OE verbs. In addition,

they were more accurate on SE verbs than on OE verbs across three tasks, suggesting that they encountered a learnability problem related to OE verbs and zero CAUS. For C1 and C2 level learners, the most frequent construction was *Transitive* for SE verbs, and *Transitive* and *Verbal Passive* (e.g., Jimmy was frightened by the needle.) for OE verbs. Therefore, the data indicated that as the language level increased, these learners' production of accurate sentences for SE and OE verbs increased, as well, and their lexical causatives (i.e., transitive) outnumbered their analytical causative forms (i.e., *get passive, make causative*). As to their acquired knowledge of zero CAUS and its consequence, advanced level L2 learners showed more native-like tendency in the production of OE verbs. This finding was consistent with the predictions of the FT-FA Hypothesis that the initial state of L2 was close to the corresponding L1 final state, which was close to the logical possibility (b) suggested by White (1989). Regarding the research on the acquisition of argument structure of psych verbs, Montrul (2001c) also showed the evidence of the FT-FA Hypothesis as regards the acquisition of psych verbs by Turkish L2 learners.

In general, our findings revealed that L2 argument structure acquisition was constrained. Thematic roles were not arbitrarily assigned to syntactic position by L2 learners. As they are unsure, students mapped *Themes* to the location of objects, as recommended by UTAH, and *Experiencer* above *Theme*, as recommended by the *Thematic Hierarchy*. OE verbs are the most common in English (Bowerman, 1990; Talmy, 1985). According to White et al. (1999), if the properties of the verbs in the L2 input only influenced L2 learners, the reverse mistake pattern (the word order of *theme + verb + experiencer* for the SE class) would have predominated.

End-states are the most significant distinction between L1 and L2 acquisition. Depending on the features of the L1, Sorace (1993) demonstrated that end-states can be qualitatively different even for near-native L2 speakers. As far as OE verbs were concerned, end-states were close to the natives as advanced learners could successfully reset the parameter. The finding that advanced group learners eventually started to acquire zero CAUS rule lended a support to UG-derived markedness in L2 studies. When learners were aware of the core rule, full access to it is attainable, which indicates a switch from the L1 setting to the TL setting, in other words, transferability of unmarked and marked L1 rules and access to the core rule. In a word, this study seemed to endorse and refine the FT-FA model.

There was another difference between adult L2 acquisition and L1 acquisition which is optionality (Sorace, 2003). L2 system, in the course of development, seemed to allow a lot more optionality or variation than L1 development (Schwartz, 1998; Sorace, 2001). In the current study, the greatest optionality figured prominently in B1 and B2 levels. For example, the learners in B1 and B2 levels composed grammatical *Transitive* and *Verbal Passive* sentences with OE verbs as well as ungrammatical constructions of *Transitive with ES*, *Intransitive with ES*, and *Passive with ES*, and even some ungrammatical constructions of SE verbs (e.g., *Redundant Preposition, Intransitive, Transitive with EO, Adjectival Passives, Passive with ES*). This indicated that these students had understood that OE verbs had no CAUS, but that this understanding had not yet compelled them to abandon L1 representation. Therefore, their L2 representation exhibited optionality: both correct forms and incorrect forms were observed in the learner data. A similar optionality was also observed in the data of Chinese L2 learners of Zhang (2007) in which intermediate level learners accepted grammatical OE verbs (with AS and InAS) as well as ungrammatical SE verbs. All in all, in the discussion of optionality issue in interlanguage of Turkish L2 learners of the current study, this optionality seemed to originate in the interaction of zero CAUS, transfer, UG principles (Thematic Hierarchy & UTAH), animacy and language level. Optionality in IL grammar is a consequence of such an interaction.

5.3. Conclusion

In this section, firstly, the critical findings were summarized, and the contributions of the current work were discussed. Finally, the contributions of the current work in terms of pedagogical implications were discussed, and some possible suggestions for further research were outlined.

5.3.1. Summary of the results

So far results from the three tasks had been discussed in the current study which were PJT, AJT and WPT. On the whole, L2 learners showed some accuracy on psych verbs, though they did have some difficulty working out the argument structure of OE verbs, suggesting problems with the zero CAUS. Generally, OE verbs were a bit more difficult than SE verbs with some exception. For example, when accuracy scores for OE and SE verbs in PIT were compared across language levels, B2 and C1 level learners

scored significantly more accurately for OE verbs, while A2 level learners gathered more accurate scores for SE verbs. When accuracy scores for OE and SE verbs in AJT were compared across language levels, A2, B1 and C1 level learners scored significantly more accurately on SE verbs. In WPT, the mean scores of SE verbs outnumbered OE verbs in terms of accuracy of production which meant that the respondents were more successful in the use of SE verbs within their verb form. Also, all language levels composed more accurate sentences with SE verbs than OE verbs in this task.

The assumption that animacy interacted with the zero CAUS in the representation of argument structure was supported by the fact that OE verbs taking animate subjects were significantly more difficult than OE verbs taking inanimate subjects for A2 level learners. However, SE verbs with animate and inanimate objects had also significantly different accuracy levels for A2 and B1 levels. In WPT, *inanimate subjects* were preferred more frequently by the respondents in *Transitive* form of OE verbs while *inanimate objects* were preferred more frequently by the respondents for the SE verbs as a set, and individual verbs. The role of animacy not only in the OE verbs but also in the SE verbs suggested that animacy was a differential feature for psych verbs in general.

When the composed sentences with OE and SE verbs in WPT were examined, five major categories of production had been determined that were *1) verb, 2) adjective, 3) adverb, 4) noun*, and *5) no answer.* The production categories of OE verbs were *verb*, *adjective*, *no answer*, *noun* and *adverb*, while the production categories of SE verbs could be listed as *verbs*, *noun*, *no answer* and *adjective* in a descending order. When two verb classes were compared, the production ratio of SE verb class as a verb was higher than OE verb class.

The findings related to the accurately used forms of SE and OE verbs indicated a total of seven syntactic frames: 1) *Transitive*, 2) *Verbal Passive*, 3) *(Periphrastic) Make Causative, 4) Get Passive*, 5) *That – Clause*, 6) *To – Infinitive*, and 7) *Imperative + Ving*. The first three frames were formed with both SE and OE verbs; but the two frames (i.e., 4, 7) were only exemplified in the use of OE verbs while the other two frames (i.e., 5, 6) were produced with SE verbs. As for the first frame, the frequency ratio of the use of two verb classes in the production category of *Transitive* was the most frequent one; however, more sentences with *transitive* verbs were accurately composed with SE verbs than OE verbs. In parallel with this finding, OE verbs were more frequently used in the form of *Verbal Passive* than SE verbs. The respondents did not show much tendency to compose

sentences with the other forms such as *Make Causative, Get Passive, That – CL* and *To – INF*.

The inaccurate uses of OE verbs as well as the syntactic frames composed by the respondents while using these verbs inaccurately indicated a total of six syntactic frames: 1) *Transitive* verb use *with ES*, 2) *Intransitive* verb use *with ES*, 3) *Passive with EO*, 4) *Get Passive*, 5) *That - CL*, and 6) *To + INF*. Among all the responses, the frequency ratio of use of OE verbs as a *Transitive* verb *with ES* was the highest one, and it was followed by *Intransitive with ES, To + INF, That - CL, Passive with EO* and *Get Passive*. Yet, there were individual differences in the inaccurate uses of OE verbs.

The findings related to the inaccurate uses of SE verbs indicated a total of eight different syntactic frames: 1) *Transitive* verb use *with TS*, 2) *Redundant Preposition*, 3) *Transitive* verb use *with EO*, 4) *Passive* verb use *with EO*, 5) *Adjectival Passive*, 6) *Intransitive,* 7) *to + INF, and* 8) *That - CL*. Among all, the frequency ratio of use of SE verbs with *Redundant Preposition* was the highest one, and it was followed by *Intransitive, Transitive with EO, Passive with ES, Adjectival Passive, That - CL, Transitive with TS* and *To + INF*. There were individual differences in the inaccurate uses of SE verbs, as well.

All in all, the interlanguage of Turkish L2 learners of the current study is reshaped in the interaction of zero CAUS, L1 transfer, UG principles, animacy, avoidance and language level. It can be argued that learners are directed by universal principles, therefore more marked, derived structures (e.g., OE psych verbs) were more difficult for L2 learners to acquire, but it could be done eventually. The assumption of LI transfer in L2 acquisition was also supported in the current study as learners found OE verbs which carried no causative morpheme different from their L1s more challenging as compared to SE verbs. Also, errors produced in WPT data resulted in the possible effect of L1. Learners also avoided the use OE class as a verb and instead composed sentences with adjectives.

5.3.2. Pedagogical Implications

As suggested by Burt (1975), word order with psychological verbs might be their most acquisition-resistant feature, and that it might also be problematic to speakers of other first language. The formal instruction on the basis of a generative linguistics view of language acquisition had considered that a key factor in the development of a learners'

internal grammar was parameter setting. Natural input was used to set these parameters. According to Burt (1975), psych verbs are an example of global grammar since they affect overall sentence order and significantly impede communication. As a result, they were ideal candidates for training. To solve the problem, students had to notice that psychological verbs are divided into two groups based on the sequence of the noun phrases that serve as *Experiencer* and *Theme,* and then figure out which verbs belonged to which group. As the intermediate students are likely to be familiar with transitive and passive formulations, as well as a wide variety of psych verbs, the problem in terms of psych verbs may be viewed as largely one of function rather than form, especially for OE verbs.

Some applied linguists (Krashen, 1985; Pica, 1992; Swain, 1985) agreed that acquisition happened when learners engaged in intelligible input and output interactions. According to SLA research, learners went through a number of steps before gaining the ability to form a target language structure, and grammar instruction did not usually disrupt this sequence (e.g., Ellis, 1989; Pienemann, 1984). However, some counterarguments have evolved for this position since 1990s. For example, Spada (2014) distinguished two areas of SLA research as naturalistic and instructed SLA. In the late 1990s, she coined the phrase "form-focused teaching" (Spada, 1997) which was defined as "any effort to direct learners' attention to form within communicative and meaning-based contexts" (Spada, 2014, p. 44). She also indicated that form-focused instruction might come in the form of direct instruction or corrective feedback, and that it could be supplied explicitly or implicitly. It is possible that instructing students to create a target structure when they are not ready will not work. Asking pupils to build complicated grammatical structures and then correcting them when they make mistakes can cause anxiety and create a psychoaffective learning barrier (Krashen, 1982).

Ellis (1995) looked at an alternate approach to grammar that was based on analyzing input from a similar perspective. This technique emphasized the necessity of learners recognizing grammatical features in the input, grasping their meanings, and comparing input forms to learner output forms. This technique emphasized input processing for comprehension rather than output processing for production, and it required the use of interpretation tasks (ITs), a comprehension-based grammar instruction method (Ellis, 1993).

Two aspects were critical in identifying target structures, according to Ellis (1995): problematicity and learnability. To determine problematicity, it is necessary to examine samples of the learners' output to see (a) which grammatical structures were not yet in use (i.e., the forms had not been learned), and (b) which forms were being used improperly because their intended function(s) had not yet been acquired. The learnability factor determined whether the learner could incorporate new grammatical material into the interlanguage system.

According to Ellis (1995), psychological predicate constructs are an excellent illustration of a problematic structure. While the order of SE verbs is unmarked (i.e., Experiencer + SE verb + Theme), the order of OE verbs is marked (Theme + OE + Experiencer). He claimed that the learning difficulty originated in marked order because learners had overgeneralized the unmarked pattern, causing them to misunderstand phrases in the marked order. As a result, he devised an interpretation task for teaching marked psych verbs.

As shown in Figure 5.1, the example interpretation task began with an exercise to assess students' comprehension of sentences including a range of psychological verbs, some of which were common and others not so common. In this exercise, students were asked to evaluate the authenticity of a collection of words in connection to photographs. Oral input was provided. The students, for example, heard a statement like "Her driving impressed him.", and assessed it in connection to an image of a guy admiring a woman driving a car. The sentences have been constructed in such a way that pronominal indications to the right interpretation are included. The pronoun her, for example, in the above line denotes that the text is about a woman's driving rather than a man's. Students might arrive at the proper interpretation of texts in this way, even if they didn't know which group a given verb belonged to. The other feature of Activity 1 was the ability for learners to request phrase repeats in order to stimulate the process of negotiating input, which has been shown in a number of studies to be critical for understanding and acquisition (e.g., Ellis, 1995, Long, 1983). This activity was designed to make learners struggle with meaning at first, while simultaneously pushing them to concentrate on word syntactic connections.

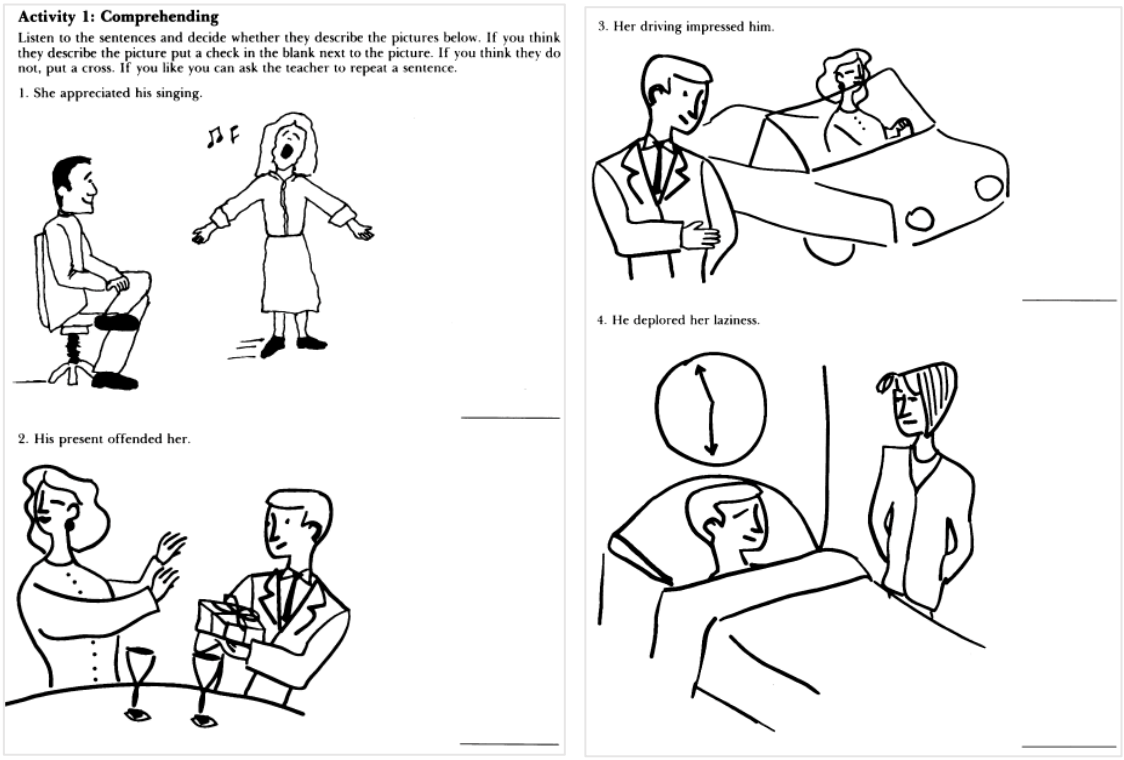


Figure 5.1. *Activity 1 in the example interpretation task for psych verbs (Ellis, 1995, p. 103)*

Activity 2: Paying Attention

Draw arrows to show who or what experiences the feeling described by the verb in these sentences. Use a dictionary to check the meanings of any verbs you do not know.

Examples: Sometimes people like dogs.

Sometimes people disgust dogs.

1. Mary worries her mother.
2. Cats bother Mary.
3. John prefers dogs.
4. Few politicians impress people.
5. Jane loves smart men.
6. Poor people envy rich people.
7. Sometimes teachers amuse their students.
8. Rabbits like children.
9. Sometimes men disappoint women.
10. Dolores mourns her father.

Figure 5.2. *Activity 2 in the example interpretation task for psych verbs (Ellis, 1995, p. 105)*

In the second activity (Figure 5.2), students focused on the *Experiencer* in sentences including both unmarked (i.e., SE) and marked (i.e., OE) psych verbs. They were instructed to draw arrows to represent who or what feels the way the verb describes. This activity had the ability to raise awareness and aimed to teach students the grammatical distinction between SE (*like*) and OE (*disgust*) psych verbs. According to Ellis (1995), some other consciousness-raising practices might also be employed (as in Ellis, 1994).

Students, for instance, may be asked to categorize the verbs they heard into two groups according on whether the *Experiencer* was the grammatical subject or the object.

Activity 3: Responding Personally

Respond to each of these sentences with:

True
Partly true
Not true

1. Tall women frighten me.
2. Women who can cook impress me.
3. Smartly dressed women impress me.
4. Very clever women overwhelm me.
5. Quiet women interest me.
6. Talkative women bore me.
7. Argumentative women confuse me.
8. Women with a sense of humor charm me.

Figure 5.3. *Activity 3 in the example interpretation task for psych verbs (Ellis, 1995, p. 105)*

Following VanPatten (1993), who distinguished between referential and affective or learner-centered activities, Ellis (1995) claimed that the third activity (Figure 5.3) necessitates paying attention to the desired form as well as the meaning of a series of sentences. The first required an objective interpretation of language, whereas the second required a more individualized reaction. As a result, whereas Activities 1 and 2 were both referential, Activity 3 was learner centered. Learners were requested to tell something about their own reactions to female and male characteristics.

Activity 4: What's the Difference?

Listen to Randy talk to his Japanese friend Koji. Can you work out what Koji should have said?
Listening text:

Randy: You know something. I don't really like tall women. I get a bit scared by them.
Koji: Yeah, I am the same. I frighten tall women.
Randy: Sorry?
Koji: I frighten tall women.
Randy: Oh, you mean you get frightened by tall women.
Koji: Yeah. And clever women too. I overwhelm clever women.
Randy: I know what you mean. They overwhelm me too.
Koji: But the worst are argumentative women. I confuse them.
Randy: They confuse you?
Koji: Uh? I mean I get confused by them.
Randy: They don't worry me. I like a good argument.
Koji: And the next worst is talkative women. I bore them.
Randy: You bore them. Or they bore you. I think you mean they bore you.
Koji: Yeah, they bore me.

Figure 5.4. *Activity 4 in the example interpretation task for psych verbs (Ellis, 1995, p. 105)*

The last activity (Figure 5.4) focused students' attention on the differences between the proper and erroneous usages of marked psych verbs (i.e., OE verbs). This was accomplished through a discourse that the pupils were able to hear. They overheard a hypothetical language learner (Koji) explaining his feelings for various categories of women to a native-speaking acquaintance. He hadn't grasped, however, that the *Experiencer* was the grammatical object in marked psychological verbs, but it was not the subject. He says things like, "*I frighten tall woman," when he really means, "Tall women frighten me.". The colleagues assist him by appropriately rephrasing the statements. The learners' objective was to figure out which of Koji's phrases were improper and to figure out what he should have said instead.

As the result of the current study found that OE verbs were the problematic verbs class for Turkish L2 learners, such interpretation tasks exemplified by Ellis (1995) can be utilized as a good alternative for the L2 learner group of the study because it specifically focused on the marked *Experiencer* and *Theme* mapping for OE psych verbs. Moreover, a number of applied linguists (e.g., Krashen 1982; Prabhu 1987) advocated abandoning grammar instruction in favor of allowing learners to acquire their interlanguages spontaneously through dialogue in the L2. This position was prompted by studies indicating that learners progressed in grammatical structures in a natural order that was unaffected by direct teaching (e.g., Pienemann, 1998).

According to Ellis (1995), manipulation of input has a greater influence on interlanguage development than manipulation of output. Learners are required to pay attention to specific grammatical properties in the input, identify and understand the meanings they convey, and compare the target language's form-function mappings with those that characterized learners' own interlanguage development in the interim stages in order to complete interpretation tasks. Teachers might intervene directly in interlanguage development through interpretation exercises. The study of Tuz (1992), referenced by Ellis (1995) and Guilloteaux (2001), supported the favorable effect of interpretation tasks. Tuz (1992) conducted research on Japanese university students studying general English, focusing on word order using psych verbs as the target structure. The interpretation tasks utilized in this study allowed learners to build the type of information required to grasp and construct the target structure to a considerably larger extent than the production tasks.

The results from this study also suggested the importance of positive evidence and the environment in which the positive evidence was inputted and outputted. Indeed, the

crucial role of input and interaction in language acquisition was nothing new at all (e.g., Gass, 1997). What would be new was how important they were regarded for specific language items in real pedagogical settings. In the current study, for example, the accuracy level of the advanced learners in comprehension and production of psych verbs compared to the lower-level learners indicated that L2 learners could acquire the target grammar (in the input rich environment), which was also indicated by Thepsura (2005). As the results of current study showed, there were significant differences between the accuracy of OE psych verbs. The data indicated that advanced learners utilized lexical causatives more frequently, while low and intermediate learners used them less frequently. The data, particularly the production data, confirmed the notion that positive L2 input can change the L1 parameter-setting to the L2 parameter-setting, which was the initial assumption about the L2.

However, the interpretation tasks did not ensure that the intervention would be successful because information may not become part of implicit L2 knowledge. It was also not the case that all grammatical instruction should be focused on understanding. Other types of grammar training, such as consciousness-raising (Ellis, 1994) and maybe classic production-based instruction, may have a role to play in enhancing learners' accuracy in the usage of target language grammatical forms they had already learned. For example, the learners sometimes make wrong choices for L2 grammar, and these choices will accumulate in time; even interlanguage system will stabilize if too many bad choices are made (Pienemann, 1998, p.326). In order to prevent the stabilization (Selinker, 1972) of these bad choices, erroneous and unacceptable uses may be explicitly introduced and discussed. Interpretation tasks were offered as one of numerous approaches to grammar instruction, although they were a very promising one. A comprehensive language program would involve a wide range of activities.

The results of Guilloteaux (2001), in a way, supported this point of view. The researcher investigated the effect of two approaches to grammar teaching (i.e., input processing for comprehension approach and output-processing for production approach) on the intake of word order with transitive psychological verbs. It was found that there was no statistically significant difference between the levels of intake of the two groups. However, on the basis of an analysis of comprehension errors and frequency of use, the group that received explicit instruction for production appeared to comprehend the word “worry” more accurately, as well as use the targeted Stimulus-subject (i.e., OE verbs)

structure more frequently. It appeared that both teaching methods were equally effective. However, the analyses of comprehension errors and use in the production test suggested that the explicit, production-oriented approach might led to slightly better comprehension and more frequent and accurate use of the targeted structure in short term although the long-term effects were not measured.

Lock (1996, p. 115), also, made such a suggestion for ESL/EFL teachers related to the teaching of psych verbs:

> … In English, mental process clauses in which the Senser is mapped onto the Subject (e.g., *All of us hate such hypocrisy*. & *All of us are disgusted by such hypocrisy.)* are in fact more common than those in which the Phenomenon is mapped onto the Subject (e.g., *Such hypocrisy disgusts us all.* & *Such hypocrisy is hated by all of us*.), and most learners would probably first need to develop control over the active voice *like* type (i.e., *All of us hate such hypocrisy*.). It will be suggested in the next chapter that the passive voice please type (i.e., All of us are disgusted by such hypocrisy.) could be first introduced as a special form of relational process clause. The active voice please type (i.e., *Such hypocrisy disgusts us all.)* will on the whole be of a lower priority for most learners.

In the light of the findings in this study, it seems that Lock's suggestion needs to be reconsidered for several reasons. First of all, the study had shown that even low level L2 learners rarely have problems with SE verbs and passive or pseuo-passive structure of OE verbs. What was problematic to them was the active voice of OE verbs. They had control over the SE verbs because of the role of UG component, *Thematic* Hierarchy or L1 Transfer. Moreover, the active voice of OE verbs was not of a lower priority, for it was the canonical English causative configuration. Therefore, studies focusing on developmental sequences in the acquisition of psych verbs with larger data are needed in order to make more accurate comments for the possible acquisition and teaching orders.

It also seems worthwhile to present psych verb class in a comparison of OE and SE verbs (i.e., flip phenomena) so that students can be aware of the difference. Moreover, it enables them to have a good understanding of the properties of English OE verbs, which do not morphologically encode causativity (zero-morphology) as compared to SE verbs.

5.3.3. Suggestions for further research

To our best knowledge, the current research is the second study conducted after Montrul (2001c) which focused on the acquisition of psych verbs by Turkish L2 learners of English. In our study, grammatical forms with *Get* Passive were observed in the production of psych verbs, and therefore, some of the L2 learners showed more native likeness as interpreted by Montrul (2001c). The profile of the Turkish learners in Montrul's (2001c) study was limited to low-intermediate learners. The concern of our study was not the same as the one of Montrul (2001c), and the comprehension tasks in our study did not aim to discover the acquisition of *Get Passive* and *Make Causative* contractions. Therefore, the point of view followed and theorized by Montrul (2001c) can be tested with L2 learners in different language levels. As a result, it would be possible to make a comparison between the results of the studies to be conducted and her study in terms of the performances of higher-level learners.

The participants of this study were undergraduate learners with an average age of 20.8. Therefore, cross-validation can be recommended for future study related to the acquisition of this verb class both with Turkish undergraduate learners of other institutions and learners with different ages and conditions. Also, five OE and five SE verbs were the concern of investigation in the current study therefore exploring Turkish L2 learners' use of different psych verbs and comparing them with the results obtained related to the verb set included in this study would broaden the picture and donate the literature with confidential manifestation for the acquisition of this verb class.

It is admitted that this is small-scale research with limitations on the number of participants, especially on the number of C2 level learners. The sample size in the future studies can be increased, and the mode of the experimental tasks can be changed. In this study, only the written tasks were applied however including spoken tasks would measure other dimensions of acquisition. It would, therefore, be supportable if a similar line of research will be conducted with a wider group of participants with different language levels who should be randomly selected and tested in both oral and written modes. One another alternative would be natural data which reminds us the written or spoken L2 learner corpora.

The future research can be conducted on the use of psych verbs by Turkish L2 learners if a mass collection of learner language could be constituted. Also, instead of

cross-sectional designs, longitudinal studies can shed some more light on the developmental sequences followed throughout the acquisition of psych verbs.

In this study, we explored the L2 acquisition of psych verbs only but not psych adjectives or nouns. However, as the data in WPT demonstrated, psych adjectives are preferred by the participants in all language levels. Hence, it would be important to conduct research on the L2 acquisition of psych adjectives, and the possible difference between the acquisition of Ved and Ving type psych adjectives can be investigated as the literature indicates some possible difference in term of the difficulty and acquisition problems faced by the L2 learners.

It was also observed in the production data that Turkish L2 learners conduct some morphological errors even with SE psych verbs (e.g., *Redundant Prepositions*). Therefore, one another concern of the future research can be the morphological errors of Turkish L2 learners with psych verbs. Research of this kind can shed light on the nature of L1 and L2 morphology and the possible effect/transfer of L1 morphological differences/characteristics on L2 acquisition. Research of this kind would also deepen our understanding of L1 influence and SLA.

What is revealed in the production data is also the errors of the L2 learners in terms of some complementation types such as *That-Clause* and *To-Infinitive*. Therefore, those observations related to misuses can become a triggering factor for the researchers interested in verb complementation patterns.

Lastly, in the acquisition of psych verbs, L2 input seems to be inadequate, as Juffs (1998) claims. As preliminary data showing that L2 input of psych verbs is not adequate, teaching materials used in Turkey together with ESL material used in various countries can be analyzed in order to discover the nature of input. It is useful to look at the actual environments in which English is taught to Turkish learners by analyzing popular and widespread textbooks used in Turkey because Turkey is a country where English L2 teachers are very reliant on textbooks. Textbooks can be taken as largely determining the students' exposure to L2.

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APPENDICES

APPENDIX-1. The Approval of Anadolu University Social and Humanities Sciences Scientific Research and Publication Ethics Committee

Evrak Kayıt Tarihi: 15.03.2019	Protokol No: 22484	Tarih: 28.03.2019

ANADOLU ÜNİVERSİTESİ
SOSYAL VE BEŞERÎ BİLİMLER BİLİMSEL ARAŞTIRMA VE YAYIN ETİĞİ KURULU
KARAR BELGESİ

ÇALIŞMANIN TÜRÜ:	Doktora Tez Çalışması
KONU:	Eğitim Bilimleri
BAŞLIK:	Acquisition of English Psych Verbs by Turkish-Speaking Undergraduate EFL Learners İngilizce Ruh-Durum Eylemlerinin İngilizceyi Yabancı Dil Olarak Öğrenen Türk Üniversite Öğrencileri Tarafından Edinimi
~~PROJE~~/TEZ YÜRÜTÜCÜSÜ:	Prof. Dr. İlknur KEÇİK
TEZ YAZARI:	Seray TANYER
ALT KOMİSYON GÖRÜŞÜ:	-
KARAR:	Olumlu

Prof.Dr. Coşkun BAYRAK
(Başkan-Eğitim Fak.)

Prof.Dr. T. Volkan YÜZER *(Başkan Yardımcısı-Açıköğretim Fak.)*	**Prof.Dr. Esra CEYHAN** *(Eğitim Fak.)*
Prof.Dr. Münevver ÇAKI *(Güzel Sanatlar Fak.)*	**Prof.Dr. M. Erkan ÜYÜMEZ** *(İkt. ve İdari Bil. Fak.)*
Prof.Dr. Handan DEVECİ *(Eğitim Fak.)*	**Prof.Dr. Emel ŞIKLAR** *(İkt. ve İdari Bil. Fak.)*

APPENDIX-2. Moderate Variables in The SLA Studies on English Psych Verbs, Adjectives and Nouns

Reference	*Research Context*	*L1*	*Academic Status*	*Field of Study*	*Age*	*Gender*	*Age of First Exposure to L2*	*Amount of Previous English Study*	*Time Spent in an English-Speaking Country*
Tash (2017)	EFL (China)	Uyghur Turkish	University	-	-	-	-	-	-
Yoon, Shin and Chung (2017)	EFL (Korea)	Korean	University	-	-	-	-	-	-
Chengping & Yang (2015)	EFL (China)	Chinese	University (1st year)	-	18-20	M (17) F (23)	-	-	-
Kim (2015)	EFL (Korea)	Korean	Middle School High School	-	-	-	-	-	-
Zhang (2015)	EFL (China)	Chinese	High School University (Graduates)	English Language and Literature	16.80 High School 25.84 Graduate (23-30)	-	-	5 (High school sts)	-
Hirakawa & Suzuki (2014)	EFL (Japan) (Spain)	Japanese Spanish	High School University	-	Japanese: 18.68 (17-26) Spanish: 22.615 (19-37)		Japanese: 11.44 (6-13) Spanish: 11.56 (2-16)	Japanese: 7.24 (4-14) Spanish: 15.45 (7-31)	-
Kang & Hou (2013)	EFL (China)	Chinese	University (BA) (MA)	Program of English (BA) Linguistics and Applied Linguistics (MA)	21 (18-27)	-	-	9.4 (7-14)	-
Witoon & Singhapreecha (2012a, b)	EFL (Thailand)	Taiwanese	High School University	-	-	-	-	-	-
Dehghan & Jabbari (2011)	EFL (Persia)	Persian	University (BA)	-	-	-	-	-	-
Hahn (2011)	EFL (Korea)	Korean	University (BA)	English as The Major and Minor	-	-	-	-	

Son & Kim (2011)	EFL (Korean)	Korean	High School	-	-	-	-	-	-
Sato (2008)	EFL (Japan)	Japanese	University (3rd year)	-	-	-	-	-	-
Zhang (2007)	EFL (China)	Chinese	University (BA)	Mathematics (34) English-Major (67)	21.35 (18-25)	-	-	-	-
Hsin & Lin (2006)	EFL (Taiwan)	Taiwanese	High School University (MA)	English as Major Subjects (22 graduates)	-	-	-	-	-
Sato (2005)	-	Japanese	University	-	-	-	13	6	-
Shomura-Isse (2005)	-	Japanese	University (BA)	-	-	-	-	-	-
Thepsura (2005)	EFL (Thailand) ESL (USA)	Taiwanese	University (Graduates)	Majoring in TEFL	-	-	-	-	-
Sato (2003)	EFL (Japan)	Japanese	University (BA)	-	-	-	-	-	-
Guilloteaux (2001)	EFL (Korea)	Korean	University (BA)	English Education	-	F	-	-	-
Montrul (2001c)	EFL (Turkey, Argentina) ESL (Canada,USA)	Turkish English Spanish	High School University	-	Experiment 1: English: 24.89 (17-40) Turkish: 19.16 (14-22) Spanish: 15.61 (15-17) Experiment 2: Spanish: 24.89 (17-40) Turkish: 19.16 (14-22) English: 20.62 (18-23) Experiment 3: Spanish: 31.57 (27-36) English: 31.05 (20-55) Japanese: 25.67 (20-29)	-	Experiment 1: Turkish: 12.83 (10-19) Spanish: 8.10 (6-12) Experiment 2: Turkish: 12.83 (10-19) English: 13.21 (11-18) Experiment 3: Spanish: 26.85 (24-31) English: 27.50 (20-43) Japanese: 23.54 (20-25)	-	Experiment 1: None
Hwang (2000)	EFL (Korea) ESL (USA)	Korean	College	-	-	-	-	6 (Middle and High School)	-
Sato (2000)	EFL (Japan)	Japanese	University (BA, 2nd year)	-	-	-	-	-	-
White et al. (1999)	E1: EFL (Madagascar)	E1: Malagasy Japanese	E2: Summer	-	-	-	-	-	-

	ESL (Canada) E2: ESL E3: EFL (Madagascar) Colombia)	E2: French Japanese E3: Malagasy Spanish	English School at University						
White et al. (1998)	ESL (Canada) (French) EFL (Madagascar) (Colombia)	Malagasy Spanish French	University (not specified)	-	Adults (No specific age provided)	-	-	-	-
Thepsura (1997)	EFL (Thailand)	Taiwanese	-	-	-	-	-	-	-
Chen (1996)	EFL (China)	Chinese French	University (BA)	Majoring in Foreign Trade	Chinese 20.5 (18-23) French 21.74 (18-37) Control 24.64 (18-43)	-	-	Chinese: 9.22 French: 10.65	Chinese (None)
Juffs (1996a) Juffs (1996b)	EFL (China)	Chinese	University	(2^{nd} year) English major (4^{th} year) Medicine (Post graduate) English & Young English Teachers	20.85	-	-	-	None

APPENDIX-3. A Brief Review of The SLA Studies on English Psych Verbs, Adjectives and Nouns

Reference	Aim & Participants	Theoretical Perspective	Psych Verbs	Task & Test Types
1. Tash (2017)	130 Uyghur (Chinese Educational Background-CEB) (Uyghur Educational Background-UEB) To investigate the effect of animacy in the comprehension and production of the psych predicates.	Animacy Zero-CAUS (Pesetsky, 1995) The L2 influence in L3 acquisition	SE: fear, like, hate OE: annoy, delight, disappoint, frighten, gladden, interest, surprise, sadden, worry	Proficiency Test (not specified) Grammaticality Judgement Task (Comprehension) Writing Production Task (Production)
2. Yoon, Shin and Chung (2017)	101 Korean To investigate the acquisition of attributive participle adjectives derived from two types of psych verbs: Experiencer-Object (EO) verbs and Experiencer-Subject (ES) verbs.	Psych Verb Types (OE, SE) Participle Types (-ing/-ed) Animacy Zero CAUSE morpheme	SE: fear, envy OE: bore, disappoint, interest, frighten, surprise, tire	Oxford Quick Placement Test (QPT, Allan, 2001) Acceptability Judgement Test
3. Chengping & Yang (2015)	40 Chinese To test the effect of morphology on word acquisition (adjectives). -Free morphs -Derivatives -Inflections	The Declarative /Procedural Knowledge of Lexicon and Grammar Associative Memory Rule Memory	(The adjectives are inflected by these verbs) OE: concern, convince, depress, disappoint, embarrass, interest, isolate, lost, scare, trouble	Controlled Productive Test Receptive Knowledge Test
4. Kim (2015)	325 Korean To examine Korean learners' animate subject preference and how much it affects their acquisition of English psych verbs.	Learnability Problem L1 influence Animacy	OE: annoy, bore, disappoint, embarrass excite, frighten, shock	Achievement Test Production Task Grammaticality Judgement Task
5. Zhang (2015)	70 Chinese To investigate how L2 learners acquire the form-meaning mappings of attributive psych adjectives.	Animacy can be subcategorized into 1) human, 2)human by metonymy, 3)animate. Zero CAUSE morpheme L1 influence	(The adjectives are inflected by these verbs) OE: amuse, annoy, bore, delight, disappoint, excite, frighten, interest, please, soothe, surprise, tire, worry	The English Language Skills Assessment Acceptability Judgement Task
6. Hirakawa & Suzuki (2014)	70 Japanese 36 Spanish	UTAH (Baker, 1988)	(The adjectives are inflected by these verbs)	- Close Test - Picture Matching Task

	To examine how the arguments of psych adjectives are represented in the L2 grammar of Japanese-speaking and Spanish-speaking learners of English, especially when morphological properties associated with psych adjectives differ in the L1 and L2.	Thematic Hierarchy (Grimshaw, 1990) L1 morphological properties (zero morphology) SLA: The principles above are observed in L2 learners' grammar.	OE: bore, disappoint, embarrass, frighten	- Acceptability Judgement Task
7. Kang & Hou (2013)	90 Chinese To figure out how the Chinese English learners acquire the ability of using second language causative psych verbs' structure accurately, meaningfully, and appropriately. (Do they prefer analytical or lexical form?)	CAUSE/STATE Conflation Parameter Pesetsky's (1995) zero CAUS theory The Semantic Salience Hierarchy Model	OE: amaze, annoy, delight disappoint, embarrass, frighten, please, sadden	- College English Test Band 4 (CET4) -Picture Description Task -Writing Production Task
8. Witoon & Singhapreecha (2012) **9.** Witoon & Singhapreecha (2012)	91 Taiwanese To examine if 1) Thai learners perform SE verbs more accurately the OE verbs, 2) the errors on OE are confined to the ones with SE, 3) causatives (make) are easier to acquire than their OE counterparts.	UTAH Thematic Hierarchy UG Availability	SE: admire, blame, dislike, enjoy, fear, OE: amuse, anger, annoy, frighten, impress	-The Michigan Test -Vocabulary Task -Grammaticality Judgement Task -Picture Elicited Production Task
10. Dehghan & Jabbari (2011)	60 Persian To investigates the role of Animacy in the acquisition of the argument structure in the case of psych verbs.	Animacy Thematic Role	SE: admire, appreciate, dread, like, regret OE: amaze, bore, entertain, excite (bütün verb ler ortaya çıkarılamadı)	-Oxford Placement Test -Grammaticality Judgement Task -Sentence Completion Task
11. Hahn (2011)	96 Korean To investigate if the acquisition of psych-verb and unaccusative constructions is affected by the processing complexity of passivization,	Automatization and Language Processing Skill Acquisition Theory Implicit / Explicit Knowledge Word Familiarity	OE: disappoint, embarrass, frustrate, frighten, shock, surprise	- Timed Grammaticality Judgement Task - Word Familiarity Rating Task
12. Son & Kim (2011)	118 Korean To investigate the problem of the acquisition of English causative psych verbs by Koreans within the framework of UG, including UTAH of argument realization and lexical parameter.	Linking Theory UTAH The Thematic Hierarchy	SE: enjoy, like, hate, respect, trust OE: bore, disappoint, excite, satisfy, surprise	Lexical Knowledge Production Task Argument Structure Production Task

		Pesetsky (1995; Target / Causer - Theme/subject Matter Restriction) Peripherastic Construction (make, have, let, get, cause)	OE (alternating): anger, confuse, delight, scare, worry	
13. Sato (2008)	80 Japanese To test whether *-ing* psych adjectives would be more problematic than -ed psych adjectives for Japanese learners of English. To test learners' knowledge of argument structure of psych adjectives.	The Thematic Hierarchy UTAH Morphological differences between L1 and L2	OE: annoy, bore, disappoint, fascinate, frighten, horrify, interest, irritate, surprise, tire (The adjectives are inflected by these verbs)	TOEIC Pre-Test Forced-Choice Format: Test 1 & 2
14. Zhang (2007)	126 Chinese	The Semantics Salience Hierarchy Model Thematic Hierarchy Animacy Zero CAUS L1 Effect	SE: like, hate, admire, fear OE: shock, frighten, annoy (anger), please, delight, satisfy, disappoint, worry, sadden	Grammaticality Judgement Task Written Production Task
15. Hsin & Lin (2006)	101 Taiwanese To examine how psych verbs in the two subcategories are acquired by groups with varied proficiencies in English, and whether results of the current research conform to theories	The Thematic Hierarchy UTAH The presence of a cause argument in OE verbs	SE: admire, enjoy, fear, hate OE: disappoint, frighten, surprise, worry	Grammaticality Judgement Task
16. Sato (2005)	203 Japanese To investigate the acquisition of psych predicates in comparison to alternating unaccusative verbs by Japanese learners of English, in a series of four linked empirical investigation	The Thematic Hierarchy Hypothesis The Non-Canonical Linking Hypothesis The Morphological Cue Hypothesis	SE: envy, fear, hate, miss, respect OE: amuse, disappoint, excite, frighten, interest, surprise, Task IV: OE: bore, fascinate, horrify, irritate, tire (The adjectives are inflected by these verbs)	TOEIC Task I (40) – Contextual Acceptability Judgement Task Task II (33) – Grammaticality Judgement Test Task III (50) – Grammaticality Judgement Test Sentence Completion Test Task IV (80) – A Forced-Choice Test

17. Shomura-Isse (2005)	37 Japanese To investigate whether Japanese learners know the properties of English Object Experiencer (0E) verbs.	UTAH Thematic Hierarchy Irregular Mapping of psych verbs Learnability Problem	OE: amaze, annoy, bore, disappoint, disgust, fascinate, horrify, irritate, surprise, tire	Close Test Vocabulary Test Acceptability Judgement Task
18. Thepsura (2005)	24 Taiwanese To investigate whether positive evidence alone is adequate for the Thai advanced learners to acquire the causative verbs in English.	UG Learnability Problem Superset-Subset Lexical Semantic Theory	OE: interest, frighten	TOEFL Vocabulary Test Production Task Grammaticality Judgement Task
19. Sato (2003)	50 Japanese To examine learners' states of acquisition of a specific grammatical item: psych(ological) verbs.	The Thematic Hierarchy The linking rule (OE verbs violate the hierarchy) Differences between English and Japanese (specific to psych verbs) Zero causative morpheme of OE verbs is problematic to Japanese learners.	SE: envy, fear, hate, miss, respect OE: disappoint, excite, frighten, interest, surprise	TOEIC Sentence Completion Task Grammaticality Judgement Task
20. Guilloteaux (2001)	14 Korean To investigate the effect two approaches to grammar teaching (an input-processing for comprehension approach, and an output-processing for production approach) on the intake of word order with transitive psychological verbs of 14 university learners whose L1 was Korean.	Acquisition-compatible grammar tasks Pedagogical Grammar Hypothesis Learnability problems related to word order with English psychological verbs	SE: admire, enjoy, envy, hate, like, respect OE: amuse, annoy, bore, depress, disappoint, frighten, impress, intimidate, surprise, upset, worry	45 minute treatment Interpretation Task Grammar lesson using a parameter-setting approach, performing production exercises 5 minute pre-treatment test: translating 10 simple sentences from Korean to English Comprehension Task Written Production Task
21. Montrul (2001c)	Spanish, Turkish, Japanese, English To investigate whether morphological errors with argument structure changing morphology were unconstrained or systematic in interlanguage grammars.	The Full Transfer/Full Access Hypothesis The Thematic Hierarchy Zero-Morphology (Pesetsky, 1995)	OE: amuse, annoy, bore, frighten, surprise	Close TestVocabulary Translation Task Picture Judgement Task

22. Hwang (2000)	100 Korean To investigate the applicability of MacWhinney's (1992) competition model to SLA with respect to Korean learners' second language acquisition of English psych verbs.	The Competition Model	OE: annoy, excite, frighten, please, surprise	Grammaticality Judgement Task Preference Task
23. Sato (2000)	19 Japanese To investigate L2 learners' acquisition of psych verbs.	Morphology of languages (English vs. Japanese)	SE: enjoy, fear, hate, like, miss OE: delight, disappoint, excite, interest, frighten, satisfy, surprise	SLEP (Secondary Level English Proficiency Test) Vocabulary Translation Task Sentence Completion Task Grammaticality Judgement Task
24. White et al. (1999)	Malagasy, Japanese, French, Spanish To investigate the nature of the L2 learner's representation of the arguments of psych verbs.	The mapping problem UTAH Thematic Hierarchies Acquisition of the Thematic Hierarchy	SE: admire, blame, detest, enjoy, envy, fear, hate, like miss, trust OE: amuse, anger, annoy, depress, disappoint, disgust, embarrass, excite, frighten, impress, surprise	*Experiment 1:* -Two sections of the Michigan Test -Written Elicited Production Task (Sentence Completion Task) -Translation Task *Experiment 2:* -Placement Test: The English Language Institute's Test of English as a Foreign Language -Vocabulary Test -Picture Identification Task *Experiment 3:* -Two sections of the Michigan Test -Vocabulary Task -Picture Identification Task (same with E2)
25. White et al. (1998)	15 French,19 Malagasy 17 Spanish -To explore the question of whether second-language (L2) learners of English acquire certain syntactic properties associated with the zero causative morpheme. -To investigate whether L2 learners of English are aware of the T/SM restriction. / whether a group of L2 learners as a whole has access to the T/SM restriction / whether the restriction is present in the grammars of individuals.	T/SM restriction The Zero Causative Morpheme Principle of UG: The HMC (The Head Movement Constraint) Access to Universal Grammar Poverty of Stimulus The Native Language (NL)	OE: anger, annoy, disappoint, frighten, please	The Francophones: The English Language Institute's Test of English as a Foreign Language (used by Queen's University as a placement test) The Malagasy and Spanish: Grammar and Vocabulary Sections of the Michigan Test Grammaticality Judgement Test

26. Thepsura (1997)	Thai learners	UG Learnability Superset/Subset	-	-
27. Chen (1996)	101 Chinese 35 French To investigate the acquisition of psych verbs, adjectives and nouns by Chinese and French learners of English	UG UTAH, Thematic Hierarchy, Binding Theory T/SM Restriction The role of L1 Animacy	SE: enjoy, blame, admire, dislike, like, fear OE: amuse, annoy, fascinate, please, terrify	Close Test Picture Identification Task Multiple Choice Task Grammaticality Judgement Task
28. Juffs (1996a) **29.** Juffs (1996b)	120 Chinese To investigate if L2 learners could acquire the knowledge captured by the parameter (i.e. Root Morpheme STATE Conflation Parameter (Juffs, 1996a)), and whether the development of the knowledge	Principles & Parameter Framework Root Morpheme STATE Conflation Parameter (Juffs, 1996a)	OE: bore, disappoint frighten, frustrate, interest	The Michigan Test (Section 1&2: Grammar & Vocabulary) A Test of Verb Meaning/Recognition Elicited Production Task Grammaticality Judgement Task

APPENDIX-4. The Rank of Psych Verbs in The SLA Studies in Four Different Lists

SLA Studies COCA New General Service List The BNC/COCA Headword Lists English Vocabulary Profile	
Object Experiencer (OE) Verbs	Subject Experiencer (SE) Verbs
1. frighten – 22 - 2249 – 1st - B2	**1.** fear – 11 - 1670 – 1st. – B2
2. disappoint – 21 - 1973 – 2nd – B1	**2.** hate – 10 - 1535 – 1st – A2
3. annoy – 13 - 2nd – B1	**3.** like – 9 - 208 – 46 – 1st – A1
4. surprise – 13 - 3086 – 1st – B1	**4.** enjoy – 8 - 884 – 495 – 1st – A1-2/C2
5. bore – 11- 16521	**5.** admire – 7 - 3305 – 2420 – 2nd – B1-2
6. interest – 11 - 1st. – B1	**6.** envy – 5 – B2
7. excite – 10 - 1193 – 1st	**7.** miss – 5 - 836 – 705 – 1st – A2
8. amuse – 7 - 2nd – B2	**8.** respect – 4 - 2836 – 2nd – B1-2
9. delight – 7 - 2nd	**9.** blame – 3 – B1/C2
10. please – 8 - 4125 – 1st – B1	**10.** dislike – 2 – B1
11. anger – 6 - 2nd	**11.** trust – 2 - 1855 – 1st – B1
12. embarrass – 6 - 2576 – 2nd – C2	**12.** appreciate – 1 - 1751 – 1329 – 2nd – B2
13. worry – 6 - 973 – 694 – 1st – A2/B2	**13.** dread – 1 – C2
14. tire – 5 - 2872 – 1364 – 1st – C2	**14.** detest – 1
15. fascinate – 4 - 2280 – 2nd – C1	**15.** regret – 1 - 4647 – 2503 – B1-2
16. satisfy – 4 - 3026 – 1186 – 2nd – B2	
17. amaze – 3 - 1584 – 1st	
18. depress – 3 - 2591 – 2nd.	
19. frustrate – 3 - 4913 – 2nd	
20. horrify – 3 -	
21. impress – 3 - 3081 – 2393 – 2nd – B2	
22. irritate – 3 – C1	
23. sadden – 3 – C2	
24. shock – 4 - 4118 – 2nd – B2	
25. confuse – 3 - 3550 – 2075 – 2nd – B2	
26. disgust – 2 - 2nd	
27. scare – 2 - 3844 – 2427 – 1st – C1	
28. concern – 1 - 3439 – 1st – B2/C1	
29. convince – 1 - 2056 – 1462 – 2nd–B1	
30. entertain – 1 - 2628 – 2nd – B1	
31. gladden – 1	
32. intimidate – 1	
33. isolate – 1	
34. soothe – 1	
35. terrify – 1 – B2	
36. trouble – 1 - 4757 – 1st	
37. upset – 1 - 3417 – 2nd – B2	

APPENDIX-5. Data Collection Booklet - 1

Oxford University Press and University of Cambridge Local Examinations Syndicate

Name **:** ……

Date **:** ……. / …….. / 2019

E-mail **:** ……...

(If you would like to be informed about your test score, please note it down.)
(Test sonucunuzu öğrenmek istiyorsanız, yazınız.) (Turkish)

quick placement test

Version 1

This test is divided into two parts:

Part One (Questions 1 – 40)

Part Two (Questions 41 – 60)

Time: 30 minutes

Part 1

Questions 1 – 5

- Where can you see these notices?
- For questions **1** to **5**, mark **one** letter **A**, **B** or **C**.

1

A in a shop
B in a hotel
C in a taxi

2

A in a library
B in a bank
C in a police station

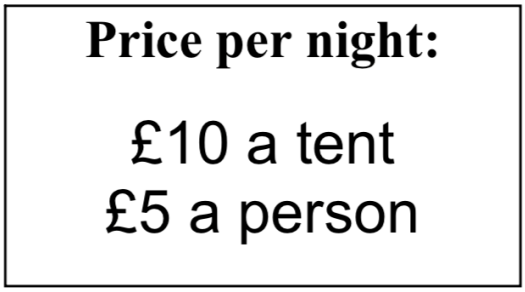
3

A outside a theatre
B outside a supermarket
C outside a restaurant

4

A at a travel agent's
B at a music school
C at a restaurant

5



A at a cinema
B in a hotel
C on a camp-site

Questions 6 – 10

- In this section you must choose the word which best fits each space in the text below.
- For questions **6** to **10**, mark **one** letter **A**, **B** or **C**.

Scotland

Scotland is the north part of the island of Great Britain. The Atlantic Ocean is on the west and the North Sea on the east. Some people **(6)** ..... Scotland speak a different language called Gaelic. There are **(7)** ..... five million people in Scotland, and Edinburgh is **(8)** ..... most famous city.

Scotland has many mountains; the highest one is called 'Ben Nevis'. In the south of Scotland, there are a lot of sheep. A long time ago, there **(9)** ..... many forests, but now there are only a **(10)** ..... .

Scotland is only a small country, but it is quite beautiful.

6	**A**	on	**B**	in	**C**	at
7	**A**	about	**B**	between	**C**	among
8	**A**	his	**B**	your	**C**	its
9	**A**	is	**B**	were	**C**	was
10	**A**	few	**B**	little	**C**	lot

Questions 11 – 20

- In this section you must choose the word which best fits each space in the texts.
- For questions **11** to **20**, mark **one** letter **A**, **B**, **C** or **D**.

Alice Guy Blaché

Alice Guy Blaché was the first female film director. She first became involved in cinema whilst working for the Gaumont Film Company in the late 1890s. This was a period of great change in the cinema and Alice was the first to use many new inventions, **(11)** ..... sound and colour.

In 1907 Alice **(12)** ..... to New York where she started her own film company. She was **(13)** ..... successful, but, when Hollywood became the centre of the film world, the best days of the independent New York film companies were **(14)** ..... . When Alice died in 1968, hardly anybody **(15)** ..... her name.

11	**A** bringing	**B** including	**C** containing	**D** supporting
12	**A** moved	**B** ran	**C** entered	**D** transported
13	**A** next	**B** once	**C** immediately	**D** recently
14	**A** after	**B** down	**C** behind	**D** over
15	**A** remembered	**B** realised	**C** reminded	**D** repeated

UFOs – do they exist?

UFO is short for ‘unidentified flying object’. UFOs are popularly known as flying saucers, **(16)** ..... that is often the **(17)** ..... they are reported to be. The **(18)** ..... "flying saucers" were seen in 1947 by an American pilot, but experts who studied his claim decided it had been a trick of the light.

Even people experienced at watching the sky, **(19)** ..... as pilots, report seeing UFOs. In 1978 a pilot reported a collection of UFOs off the coast of New Zealand. A television **(20)** ..... went up with the pilot and filmed the UFOs. Scientists studying this phenomenon later discovered that in this case they were simply lights on boats out fishing.

16	**A** because	**B** therefore	**C** although	**D** so
17	**A** look	**B** shape	**C** size	**D** type
18	**A** last	**B** next	**C** first	**D** oldest
19	**A** like	**B** that	**C** so	**D** such
20	**A** cameraman	**B** director	**C** actor	**D** announcer

Questions 21 – 40

- In this section you must choose the word or phrase which best completes each sentence.
- For questions **21** to **40**, mark **one** letter **A**, **B**, **C** or **D**.

21 The teacher encouraged her students ..... to an English pen-friend.

A should write **B** write **C** wrote **D** to write

22 They spent a lot of time ..... at the pictures in the museum.

A looking **B** for looking **C** to look **D** to looking

23 Shirley enjoys science lessons, but all her experiments seem to ..... wrong.

A turn **B** come **C** end **D** go

24 ..... from Michael, all the group arrived on time.

A Except **B** Other **C** Besides **D** Apart

25 She ..... her neighbour's children for the broken window.

A accused **B** complained **C** blamed **D** denied

26 As I had missed the history lesson, my friend went ..... the homework with me.

A by **B** after **C** over **D** on

27 Whether she's a good actress or not is a ..... of opinion.

A matter **B** subject **C** point **D** case

28 The decorated roof of the ancient palace was ..... up by four thin columns.

A built **B** carried **C** held **D** supported

29 Would it ..... you if we came on Thursday?

A agree **B** suit **C** like **D** fit

30 This form ..... be handed in until the end of the week.

A doesn't need **B** doesn't have **C** needn't **D** hasn't got

31 If you make a mistake when you are writing, just ..... it out with your pen.

A cross **B** clear **C** do **D** wipe

32 Although our opinions on many things ..... , we're good friends.

A differ **B** oppose **C** disagree **D** divide

33 This product must be eaten ..... two days of purchase.

A by **B** before **C** within **D** under

34 The newspaper report contained ..... important information.

A many **B** another **C** an **D** a lot of

35 Have you considered ..... to London?

A move **B** to move **C** to be moving **D** moving

36 It can be a good idea for people who lead an active life to increase their ..... of vitamins.

A upturn **B** input **C** upkeep **D** intake

37 I thought there was a ..... of jealousy in his reaction to my good fortune.

A piece **B** part **C** shadow **D** touch

38 Why didn't you ..... that you were feeling ill?

A advise **B** mention **C** remark **D** tell

39 James was not sure exactly where his best interests ..... .

A stood **B** rested **C** lay **D** centered

40 He's still getting ..... the shock of losing his job.

A across **B** by **C** over **D** through

Part 2

Questions 41 – 50

- In this section you must choose the word or phrase which best fits each space in the texts.
- For questions **41** to **50**, mark **one** letter **A**, **B**, **C** or **D**.

The tallest buildings - SKYSCRAPERS

Nowadays, skyscrapers can be found in most major cities of the world. A building which was many **(41)** ..... high was first called a skyscraper in the United States at the end of the 19th century, and New York has perhaps the **(42)** ..... skyscraper of them all, the Empire State Building. The **(43)** ..... beneath the streets of New York is rock,
(44) ..... enough to take the heaviest load without sinking, and is therefore well-suited to bearing the **(45)** ..... of tall buildings.

41	**A** stages	**B** steps	**C** storeys	**D** levels
42	**A** first-rate	**B** top-class	**C** well-built	**D** best-known
43	**A** dirt	**B** field	**C** ground	**D** soil
44	**A** hard	**B** stiff	**C** forceful	**D** powerful
45	**A** weight	**B** height	**C** size	**D** scale

SCRABBLE

Scrabble is the world's most popular word game. For its origins, we have to go back to the 1930s in the USA, when Alfred Butts, an architect, found himself out of **(46)** ..... . He decided that there was a **(47)** ..... for a board game based on words and **(48)** ..... to design one. Eventually he made a **(49)** ..... from it, in spite of the fact that his original **(50)**..... was only three cents a game.

46	**A** earning	**B** work	**C** income	**D** job
47	**A** market	**B** purchase	**C** commerce	**D** sale
48	**A** took up	**B** set out	**C** made for	**D** got round
49	**A** wealth	**B** fund	**C** cash	**D** fortune
50	**A** receipt	**B** benefit	**C** profit	**D** allowance

Questions 51 – 60

- In this section you must choose the word or phrase which best completes each sentence.
- For questions **51** – **60**, mark **one** letter **A**, **B**, **C** or **D**.

51 Roger's manager ..... to make him stay late if he hadn't finished the work.

A insisted **B** warned **C** threatened **D** announced

52 By the time he has finished his week's work, John has hardly ..... energy left for the weekend.

A any **B** much **C** no **D** same

53 As the game ..... to a close, disappointed spectators started to leave.

A led **B** neared **C** approached **D** drew

54 I don't remember ..... the front door when I left home this morning.

A to lock **B** locking **C** locked **D** to have locked

55 I ..... to other people borrowing my books: they always forget to return them.

A disagree **B** avoid **C** dislike **D** object

56 Andrew's attempts to get into the swimming team have not ..... with much success.

A associated **B** concluded **C** joined **D** met

57 Although Harry had obviously read the newspaper article carefully, he didn't seem to have ..... the main point.

A grasped **B** clutched **C** clasped **D** gripped

58 A lot of the views put forward in the documentary were open to ..... .

A enquiry **B** query **C** question **D** wonder

59 The new college ..... for the needs of students with a variety of learning backgrounds.

A deals **B** supplies **C** furnishes **D** caters

60 I find the times of English meals very strange – I'm not used ..... dinner at 6pm.

A to have **B** to having **C** having **D** have

PARTICIPANT INFORMATION SHEET

Class **:** (1) - (2) - (3) – (4)	
Section **:** A – B – C – D – E – F – G – H – I	
Gender **: ( )** Female - **( )** Male	
Age **:**	
1. At what age did you start to learn English? :	
2. Where did you start to learn English?	**( )** Family **( )** School **( )** Language school **( )** Other (Please explain):
3. Please note down the names of the schools you received education in.	**( )** Elemantary : **( )** Secondary : **( )** High School:
4. Have you ever been abroad?	**( )** Yes **( )** No
(If yes,)	**4.a.** Where? :
	4.b. For what purpose? :
	4.c. How long? :
5. Do you do any extra activities to improve your English?	**( )** Yes **( )** No
(If yes,)	**5.a.** What do you do to improve your English?

6. Do you play computer games in English? **( )** Yes **( )** No
(If yes,) **6.a.** How often do you play?:
7. Do you read any extra English books,magazines, articles etc. other than those requested at school? **( )** Yes **( )** No
(If yes,) **7.a.** How often do you read? :
8. Do you watch any movies, videos in English? **( )** Yes **( )** No
(If yes,) **8.a.** How often do you watch? :
9. (Before university) Which aspects of English (e.g., grammar, vocabulary, language skills etc.) were focused on throughout your education life? How? How much? Please explain.
10. Have you ever had the opportunity to interact with native speakers of English? **( )** Yes **( )** No
(If yes,) **10.a.** In which settings, for what purpose(s) and how long did you interact? **Please explain.**

KATILIMCI BİLGİ FORMU (Turkish)

Sınıf : (1) - (2) - (3) – (4)	
Şube : A – B – C – D – E – F – G – H – I	
Cinsiyet : **( )** Kadın - **( )** Erkek	
Yaş :	
1. İngilizce öğrenmeye hangi yaşta başladınız?	
2. İngilizce öğrenmeye nere(ler)de başladınız?	**( )** Aile **( )** Okul **( )** Dil kursu **( )** Diğer (Açıklayınız):
3. Lütfen yandaki kademelerde öğrenim gördüğünüz okulların isimlerini belirtiniz.	**( )** İlkokul : **( )** Ortaokul : **( )** Lise :
4. Hiç yurtdışında bulundunuz mu?	**( )** Evet **( )** Hayır
(Evet ise)	**4.a.** Nere(ler)de? :
	4.b. Hangi amaç(lar)la? :
	4.c. Ne kadar süre boyunca? :
5. İngilizcenizi geliştirmek için ekstra faaliyetlerde bulunuyor musunuz?	**( )** Evet **( )** Hayır
(Evet ise)	**5.a.** İngilizcenizi geliştirmek adına neler yapıyorsunuz?

6. İngilizce bilgisayar oyunu oynuyor musunuz?	**( )** Evet **( )** Hayır
(Evet ise) **6.a.** Ne kadar sıklıkta oynuyorsunuz? :	
7. Okulda talep edilenler dışında İngilizce kitap/dergi/makale vb. okuyor musunuz?	**( )** Evet **( )** Hayır
(Evet ise) **7.a.** Ne kadar sıklıkta okuyorsunuz? :	
8. İngilizce film/video vb. izliyor musunuz?	**( )** Evet **( )** Hayır
(Evet ise) **8.a.** Ne kadar sıklıkta izliyorsunuz? :	
9. (Üniversite öncesi) Öğreniminiz boyunca yabancı dilin (İngilizce) **hangi yönlerine** (örn., dil bilgisi, sözcük bilgisi, dil becerileri vb.), **ne kadar** ve **nasıl** önem verildi? **Lütfen açıklayınız.**	
10. İngilizceyi anadil olarak konuşan bireyler ile etkileşim fırsatınız oldu mu?	**( )** Evet **( )** Hayır
(Evet ise) **10.a.** Hangi **ortam**(lar)da, **amaç**(lar)la ve ne kadar **süre** boyunca etkileşime geçtiniz? **Lütfen açıklayınız**.	

APPENDIX-6. Consent Form and Data Collection Booklet - 2

Dear Participant,

This study is a research study titled as *Acquisition of English Psych Verbs by Turkish-Speaking Undergraduate EFL Learners*, and aims to examine the foreign language acquisition dimensions of students in a particular structure. The study has been conducted by *Res. Assist. Seray Tanyer* under the supervision of *Prof. Dr. İlknur Keçik*, and aimed to contribute to the second language acquisition field with its results.

- Your participation in this study is on a voluntary basis.
- In line with the purpose of this study, data will be collected in two different sessions via *Quick Placement Test*, *Written Production Task*, *Acceptability Judgement Task*, *Picture Identification Task* and *Vocabulary Translation Task*.
- The names of the participants in the study will be kept confidential.
- The data collected within the scope of this research will only be used for scientific purposes, will not be used beyond the purpose of this research or in another research and, if necessary, will not be shared with others without your (written) consent.
- Upon your request, you have the right to examine the data collected from you.
- The data collected from you will be protected and archived at the end of the research.
- There will be no questions/requests that may disturb you during the data collection process. However, if you feel uncomfortable for any reason during your participation, you will be able to leave the study at any time. If you leave the study, the data collected from you will be eliminated from the study and destroyed.

Thank you for your time to read and evaluate the volunteer participation form. You can direct your questions about the study to *Seray Tanyer* from Anadolu University Department of English Language Teaching.

Researcher: Res. Assist. Seray TANYER
Adress: Faculty of Education – Department of Foreign Language Education Room:116
Office Phone Number: (0222) 335 05 80 / 3486
E-mail: seraytanyer@gmail.com

I accept that the information I have given, knowing that I participate in this study entirely on my own will and that I can quit the study if I want, will be used for scientific purposes.

(Please fill in and sign this form and submit it to the data collector.)

(Participant) Name/Surname: ……..

E-mail: …….. **Signature**: ……
(*Please note it down if you want to know your test results.)* **Date**: ….. /. ….. /. ……

Sevgili Katılımcı, (Turkish)

Bu çalışma, *Acquisition of English Psych Verbs by Turkish-Speaking Undergraduate EFL Learners* başlıklı bir araştırma çalışması olup, öğrencilerin belli bir yapı özelindeki yabancı dil edinim boyutlarını irdeleme amacını taşımaktadır. Çalışma, Prof. Dr. İlknur Keçik danışmanlığında, Arş. Gör. Seray Tanyer tarafından yürütülmektedir ve sonuçları ile ikinci dil edinim alan yazınına katkıda bulunulması amaçlanmaktadır.

- Bu çalışmaya katılımınız gönüllülük esasına dayanmaktadır.
- Çalışmanın amacı doğrultusunda *İngilizce Seviye Belirleme Sınavı, Yazılı Üretim Testi, Kabuledirlik Doğrulama Testi, Görsel Betimleme Testi* ve *Sözcük Çeviri Testi* kullanılarak sizden iki farklı oturumda veriler toplanacaktır.
- Araştırmada katılımcıların isimleri gizli tutulacaktır.
- Araştırma kapsamında toplanan veriler, sadece bilimsel amaçlar doğrultusunda kullanılacak, araştırmanın amacı dışında ya da bir başka araştırmada kullanılmayacak ve gerekmesi halinde, sizin (yazılı) izniniz olmadan başkalarıyla paylaşılmayacaktır.
- İstemeniz halinde sizden toplanan verileri inceleme hakkınız bulunmaktadır.
- Sizden toplanan veriler korunacak ve araştırma bitiminde arşivlenecektir.
- Veri toplama süreçlerinde size rahatsızlık verebilecek herhangi bir soru/talep olmayacaktır. Yine de katılımınız sırasında herhangi bir sebepten rahatsızlık hissederseniz çalışmadan istediğiniz zamanda ayrılabileceksiniz. Çalışmadan ayrılmanız durumunda sizden toplanan veriler çalışmadan çıkarılacak ve imha edilecektir.

Gönüllü katılım formunu okumak ve değerlendirmek üzere ayırdığınız zaman için teşekkür ederim. Çalışma hakkındaki sorularınızı Anadolu Üniversitesi İngiliz Dili Eğitimi bölümünden *Seray Tanyer'*e yöneltebilirsiniz.

Araştırmacı Adı: Arş. Gör. Seray TANYER
Adres: Eğitim Fakültesi Yabancı Diller Eğitimi Bölümü Oda No:116
İş Tel: (222) 335 05 80 / 3486
E-posta: seraytanyer@gmail.com

Bu çalışmaya tamamen kendi rızamla katıldığımı, istediğim takdirde çalışmadan ayrılabileceğimi bilerek verdiğim bilgilerin bilimsel amaçlarla kullanılmasını kabul ediyorum. *(Lütfen bu formu doldurup imzaladıktan sonra veri toplayan kişiye teslim ediniz.)*

Katılımcı Ad ve Soyadı: ……..

E-posta: …….. **İmza**: ……..
(*Test sonucunuzu öğrenmek istiyorsanız yazınız.)* **Tarih**: ….. / ….. / ……

1) WRITTEN PRODUCTION TASK

INSTRUCTION: The purpose of this measurement tool is to observe your **preferences of verb use.** You will read 10 different paragraphs below. To the right of each paragraph, there are **4 different nouns / phrases** and **1 verb** related to the content of the paragraph. You are expected to **summarize** the situation in the paragraph with this single **verb** in a positive sentence (e.g., *John broke the window*.). You can use any of the nouns and phrases you would like. If you want, you may not use any of them and build your sentence by yourself.

- **Verbs that are written in bold and circled must be included in your sentence.**
- The bold and circled verbs can be used in your sentence in any way you would like.
- You can add any words / suffixes etc. you want to your sentence as long as you see it necessary.
- Names and phrases are given in a random order. They can take place in your sentence in the order you want.
- Be sure to form your sentences by reading the paragraphs in the order presented.
- **Please do not go back and review or correct your answers.**

1) YAZILI ÜRETİM TESTİ (Turkish)

YÖNERGE (Turkish): Bu ölçme aracının amacı, sizlerin **eylem (fiil) kullanım tercihlerinizi** gözlemleyebilmektir. Aşağıda 10 farklı paragraf okuyacaksınız. Her paragrafın sağında, paragrafın içeriğiyle ilişkili **4 farklı isim/tamlama** ve **1 eylem** (fiil) yer almaktadır. Sizden beklenen, bu tek **eylem** (fiil) ile paragraftaki durumu **olumlu** (ör. *John broke the window*.) bir cümle kurarak **özetlemenizdir**. İsim ve tamlamalardan ise dilediğinizi kullanabilirsiniz. Dilerseniz hiçbirini kullanmayıp cümlenizi kendiniz de inşa edebilirsiniz.

- **Koyu yazılmış ve daire içine alınmış eylemler cümlenizde mutlaka yer almalıdır.**
- Koyu yazılmış ve daire içine alınmış eylemler cümlenizde istediğiniz biçimde kullanılabilir.
- Gerekli gördüğünüz sürece, istediğiniz sözcükleri/ekleri vb. cümlenize katabilirsiniz.
- İsim ve tamlamalar rastgele bir sırada verilmiştir. Cümlenizde uygun gördüğünüz sırada yer alabilirler.
- Paragrafları sunulan sırada okuyup cümle kurmaya mutlaka özen gösteriniz.
- **Lütfen geriye dönüp yanıtlarınızı gözden geçirmeyiniz ve düzeltmeyiniz.**

<table>
<tr><td rowspan="3">Example

Örnek</td><td colspan="2" rowspan="2">A thief broke into the house last night. The police came quickly. Everything was normal except for a broken window.</td><td>thief</td><td>window</td></tr>
<tr><td>police</td><td>house</td></tr>
<tr><td colspan="2">break</td></tr>
<tr><td>Possible Sentence:

Olası Tümce:</td><td colspan="3">The thief broke the window.</td></tr>
</table>

⇓⇓ **Now, you can start forming your sentences.** ⇓⇓
Şimdi cümlelerinizi yazmaya başlayabilirsiniz.

1) The mother spent her off-day with her son, Jeffrey. He swam in the pool and ate ice-cream. Jeffrey was very happy.	Jeffrey	swimming pool
	mother	the off-day
	enjoy	

..……

……..……

……..……

2) Little Jimmy was sick. His father took him to a hospital. The doctor gave Jimmy an injection. Jimmy ran away when he saw the needle.	Jimmy	hospital
	doctor	needle
	frighten	

..……

……..……

……..……

3) Wes Cherry created the computer game Solitaire out of boredom. Then, his bosses wanted to add it to Windows in 1990.	Wes Cherry	Solitaire
	bosses	computer game
	like	

..……

……..……

……..……

4) Charlie loves cars very much. Last week, his mother bought him many picture books about cars. He read them with a lot of interest.	Charlie	books about cars
	mother	cars
	fascinate	

..……

……..……

……..……

5) Leroy was traveling with his parents. Suddenly, the car broke down. He attempted to fix it but he couldn't. His parents laughed at Leroy so much.	Leroy	car breakdown
	parents	Leroy's attempt
	amuse	

..……

……..……

……..……

6) Martin was driving very fast. The policeman stopped and gave him a ticket for speeding. Martin lost his control and yelled at the policeman.	Martin	police car
	policeman	speeding ticket
	annoy	

..……

……..……

……..……

7) Gloria wanted to move to a new apartment. But, she was very undecided because of her father. He was a very rigid person and had no tolerance.	Gloria	the idea of moving
	father	father's reaction
	fear	

..……

……..……

……..……

8) During World War II, Kaneko's home was destroyed by a bomb. He ran away from the war and soldiers. Then, he moved to the mountains.	Kaneko	atomic bomb
	soldiers	war
	hate	

..……

……..……

……..……

9) Alice visited İstanbul with an experienced tour guide. She saw many touristy places. She was quite happy with her visit.	Alice	her visit
	tour guide	touristy places
	please	

..……

……..……

……..……

10) John saw a drowning girl in the lake. He jumped into the lake and saved the girl. He became a hero in the eyes of his schoolmates.	John	life saving
	schoolmates	John's courage
	admire	

..……

……..……

……..……

2) ACCEPTABILITY JUDGEMENT TASK

INSTRUCTION

Bu ölçme aracının amacı, sizin İngilizcede belli yapıların dilbilgisel doğruluğunu algılayış biçiminizi ortaya koymaktır. Aşağıda bir dizi ifade göreceksiniz. Sizden beklenen bu ifadeleri okuyup, cümlelerin İngilizcede **hem yapısal hem de anlamsal** olarak geçerli, kabuledilir (**Acceptable**) olup olmadığına karar vermenizdir. Yanıtlarınızı 5'li bir ölçek kullanarak işaretleyebileceksiniz.

- Eğer cümleleri **"Acceptable (kabuledilir)"** buluyorsanız **(1) Probably Acceptable** ya da **(2) Definitely Acceptable** seçeneklerinden uygun gördüğünüzü işaretleyiniz.
- Eğer cümleleri "**Unacceptable**" buluyorsanız, **(-1) Probably Unacceptable** ya da **(-2) Definitely Unacceptable** seçeneklerinden uygun gördüğünüzü işaretleyiniz.
- Eğer cümlelere dair bir yorum geliştiremiyorsanız, **(0) Don't Know** seçeneğini kullanabilirsiniz.

2) KABULEDİLİRLİK DOĞRULAMA TESTİ (Turkish)

YÖNERGE (Turkish)

Bu ölçme aracının amacı, sizin İngilizcede belli yapıların dilbilgisel doğruluğunu algılayış biçiminizi ortaya koymaktır. Aşağıda bir dizi ifade göreceksiniz. Sizden beklenen bu ifadeleri okuyup, cümlelerin İngilizcede **hem yapısal hem de anlamsal** olarak geçerli, kabuledilir (**Acceptable**) olup olmadığına karar vermenizdir. Yanıtlarınızı 5'li bir ölçek kullanarak işaretleyebileceksiniz.

- Eğer cümleleri **"Acceptable (kabuledilir)"** buluyorsanız **(1) Probably Acceptable** ya da **(2) Definitely Acceptable** seçeneklerinden uygun gördüğünüzü işaretleyiniz.
- Eğer cümleleri "**Unacceptable**" buluyorsanız, **(-1) Probably Unacceptable** ya da **(-2) Definitely Unacceptable** seçeneklerinden uygun gördüğünüzü işaretleyiniz.
- Eğer cümlelere dair bir yorum geliştiremiyorsanız, **(0) Don't Know** seçeneğini kullanabilirsiniz.

(-2) Definitely Unacceptable **(-1) Probably Unacceptable** **(0) Don't Know** **(1) Probably Acceptable** **(2) Definitely Acceptable**	**Definitely Unacceptable**	**Probably Unacceptable**	**Don' t Know**	**Probably Acceptable**	**Definitely Acceptable**
Example ***The thief broke the window.***					**X**
Örnek ***The window broke the thief.***	**X**				
1. The fire alarm frightened the hotel receptionist.	(-2)	(-1)	(0)	(1)	(2)
2. The preschool teacher lifted the toy box.	(-2)	(-1)	(0)	(1)	(2)
3. The painful tooth pulled the novice dentist.	(-2)	(-1)	(0)	(1)	(2)
4. The teenage girl pleased the musical performance.	(-2)	(-1)	(0)	(1)	(2)
5. The nurse assistant pushed the empty wheelchair.	(-2)	(-1)	(0)	(1)	(2)
6. The foreign guest enjoyed the dinner party.	(-2)	(-1)	(0)	(1)	(2)
7. The observation tower hit the airline pilot.	(-2)	(-1)	(0)	(1)	(2)
8. The Youtube posting annoyed the rock musician.	(-2)	(-1)	(0)	(1)	(2)
9. The experienced player kicked the soccer ball.	(-2)	(-1)	(0)	(1)	(2)
10. The Northern Lights fascinated the young traveler.	(-2)	(-1)	(0)	(1)	(2)
11. The kindergarten children amused the circus show.	(-2)	(-1)	(0)	(1)	(2)
12. The business meetings hated the company members.	(-2)	(-1)	(0)	(1)	(2)
13. The pocket watch admired the rich customer.	(-2)	(-1)	(0)	(1)	(2)
14. The broken lamp lifted the cleaning personnel.	(-2)	(-1)	(0)	(1)	(2)
15. The computer engineer liked the software program.	(-2)	(-1)	(0)	(1)	(2)
16. The prison guardian feared the sudden noise.	(-2)	(-1)	(0)	(1)	(2)
17. The income opportunity pleased the novice intern.	(-2)	(-1)	(0)	(1)	(2)
18. The standing bookshelf pushed the library officer.	(-2)	(-1)	(0)	(1)	(2)
19. The cooking workshop enjoyed the new participant.	(-2)	(-1)	(0)	(1)	(2)
20. The airline passenger frightened the heavy turbulence.	(-2)	(-1)	(0)	(1)	(2)
21. The street robber pulled the expensive handbag.	(-2)	(-1)	(0)	(1)	(2)
22. The company manager annoyed the racist statements.	(-2)	(-1)	(0)	(1)	(2)
23. The talk show amused the crowded audience.	(-2)	(-1)	(0)	(1)	(2)

(-2) Definitely Unacceptable **(-1) Probably Unacceptable** **(0) Don't Know** **(1) Probably Acceptable** **(2) Definitely Acceptable**	**Definitely Unacceptable**	**Probably Unacceptable**	**Don' t Know**	**Probably Acceptable**	**Definitely Acceptable**
24. The professional boxer hit the punching bag.	(-2)	(-1)	(0)	(1)	(2)
25. The social scientist fascinated the political theory.	(-2)	(-1)	(0)	(1)	(2)
26. The elderly grandfather hated the city life.	(-2)	(-1)	(0)	(1)	(2)
27. The hospital walls kicked the emergency patient.	(-2)	(-1)	(0)	(1)	(2)
28. The art-lovers admired the painting exhibition.	(-2)	(-1)	(0)	(1)	(2)
29. The ghost story feared the little children.	(-2)	(-1)	(0)	(1)	(2)
30. The business project liked the candidate investors.	(-2)	(-1)	(0)	(1)	(2)

3) PICTURE IDENTIFICATION TASK

INSTRUCTION: Below, you will see a number of statements paired with images. What is expected from you is to carefully read the statements and decide whether these statements properly describe the images or not.

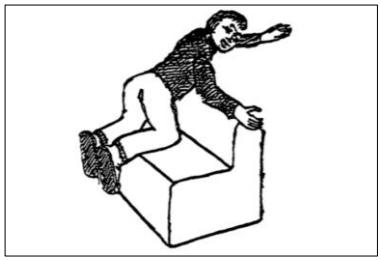
- If you think the sentence **describes** the image properly, tick the **True (X)** box.
- If you think the sentence **does not describe** the image, tick the **False (X)** box.
- Please, never go back and review and/or correct your answers.

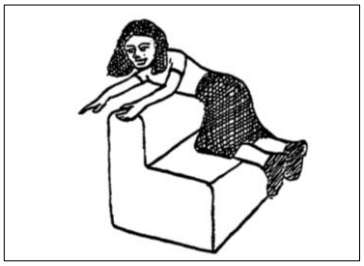
2) GÖRSEL BETİMLEME TESTİ (Turkish)

YÖNERGE (Turkish): Aşağıda görseller ile eşleştirilmiş bir dizi ifade göreceksiniz. Sizden beklenen ifadeleri dikkatlice okuyup, bu ifadelerin görselleri uygun biçimde tarif edip etmediklerine karar vermenizdir.

- Eğer cümlenin görseli **DOĞRU** tarif ettiğini düşünüyorsanız, **True (X)** kutucuğunu işaretleyiniz.
- Eğer cümlenin görseli **YANLIŞ tarif ettiğini** düşünüyorsanız, **False (X)** kutucuğunu işaretleyiniz.
- Asla geri dönüp yanıtlarınızı gözden geçirmeyiniz ve düzeltmeyiniz.

EXAMPLE
ÖRNEK (Turkish)

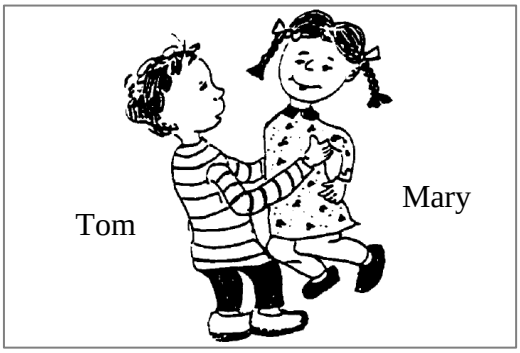




	True	False		True	False
The man is under the sofa.	( )	(X)	The woman is on the sofa.	(X)	( )

⇓⇓ **Şimdi ifade ve görsel eşleşmelerini değerlendirmeye başlayabilirsiniz.** ⇓⇓

1.

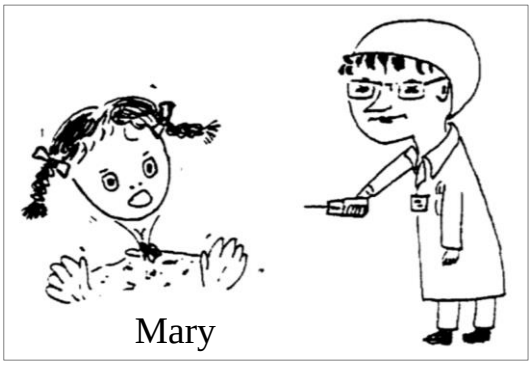


Tom lifted Mary. True ( ) False ( )

2.

Mary kicked Tom. True ( ) False ( )

3.

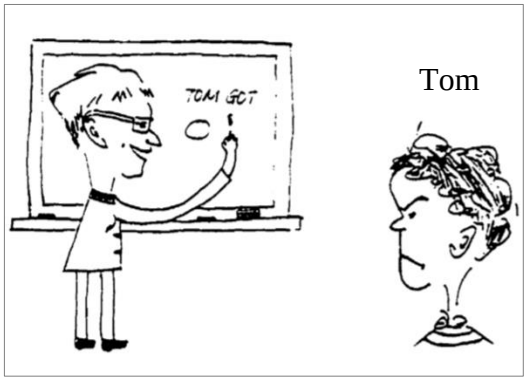


The doctor feared Mary. True ( ) False ( )

4.

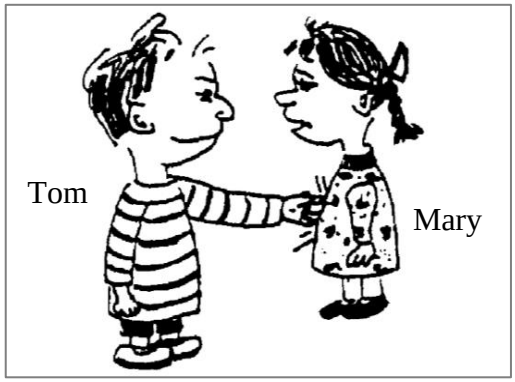
The painting admired Tom. True ( ) False ( )

5.



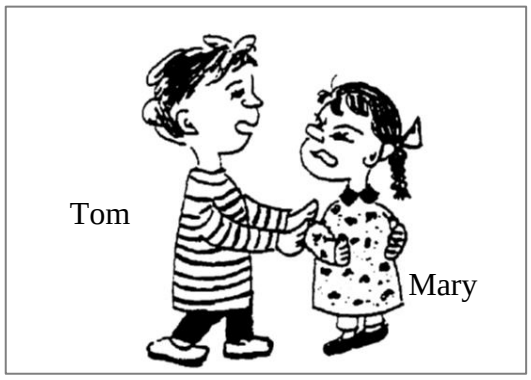
Tom annoyed the teacher. True ( ) False ( )

6.



Mary hit Tom. True ( ) False ( )

7.

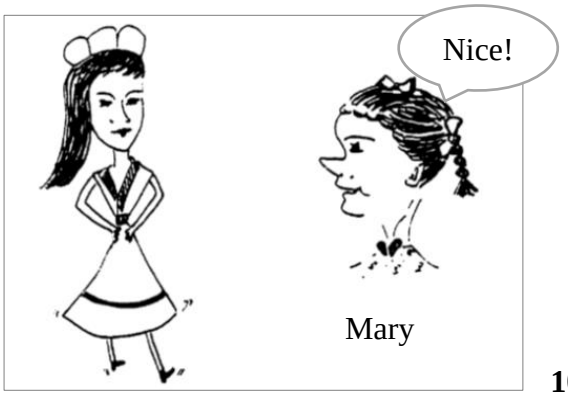


Marry was pushed by Tom. True ( ) False ( )

8.

Tom amused the book. True ( ) False ( )

9.

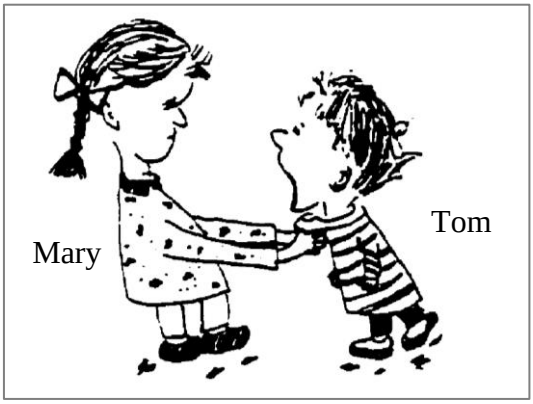


The model pleased Mary. True ( ) False ( )

10.

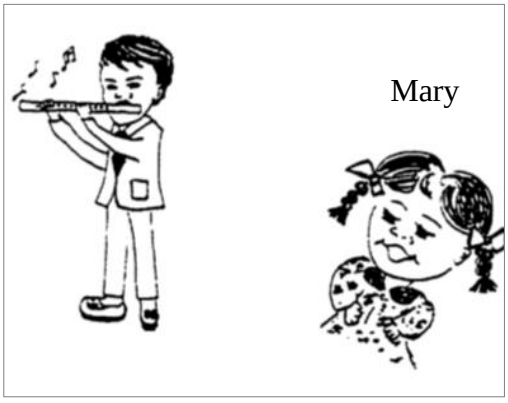
The snowstorm feared Mary. True ( ) False ( )

11.

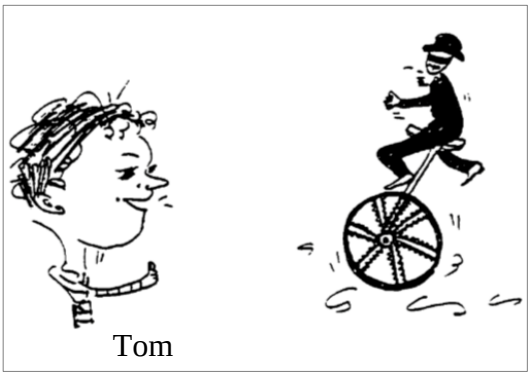


Mary pulled Tom. True ( ) False ( )

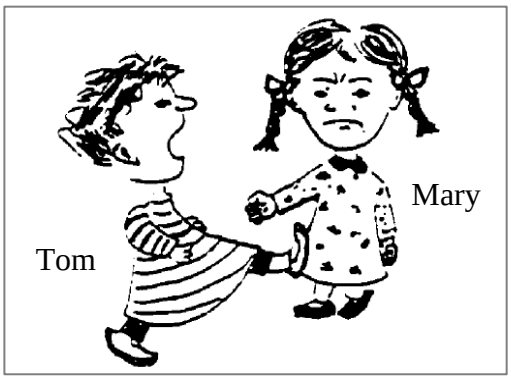
12.



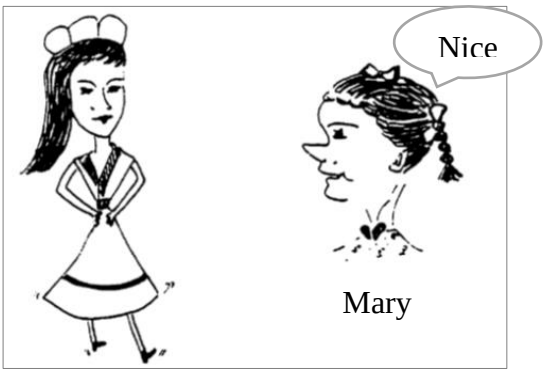
Mary fascinated the musician. True ( ) False ( )

13. 

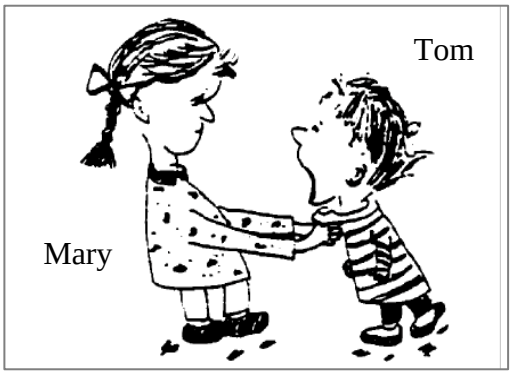
The clown enjoyed Tom. True ( ) False ( )

14. 

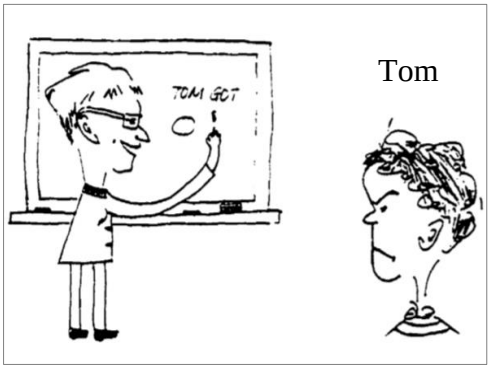
Mary was kicked by Tom. True ( ) False ( )

15. 

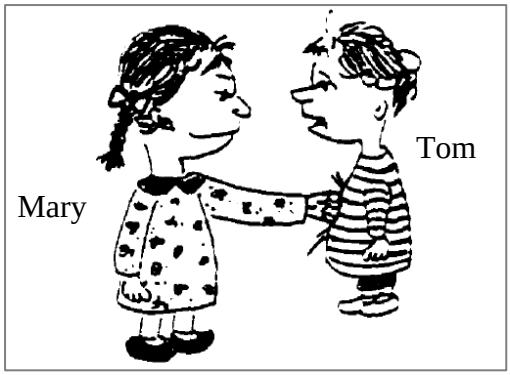
Mary liked the model. True ( ) False ( )

16. 

Tom pulled Mary. True ( ) False ( )

17. 

Tom hated the teacher. True ( ) False ( )

18. 

Tom was hit by Mary. True ( ) False ( )

19. 

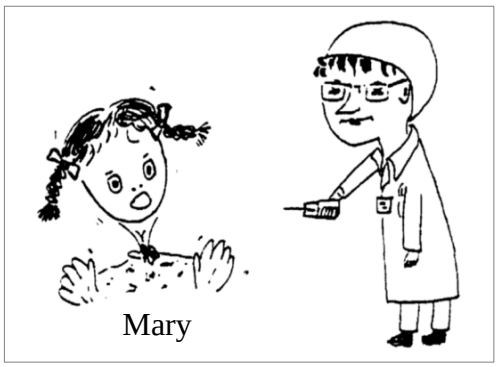
Mary pleased the ice-cream. True ( ) False ( )

20. 

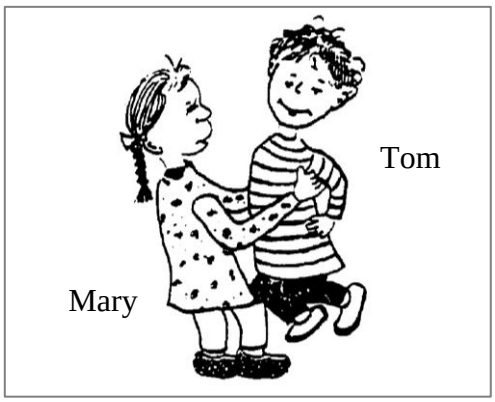
The book amused Tom. True ( ) False ( )

21. 

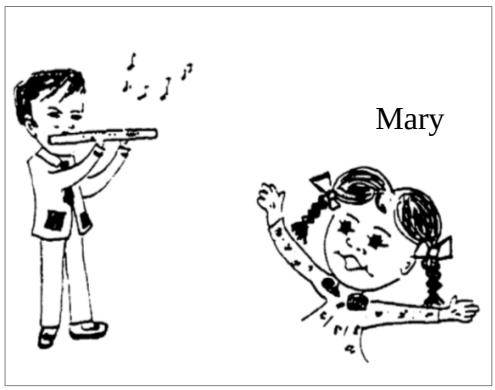
The weather hated Tom. True ( ) False ( )

22. 

The doctor frightened Mary. True ( ) False ( )

23. 

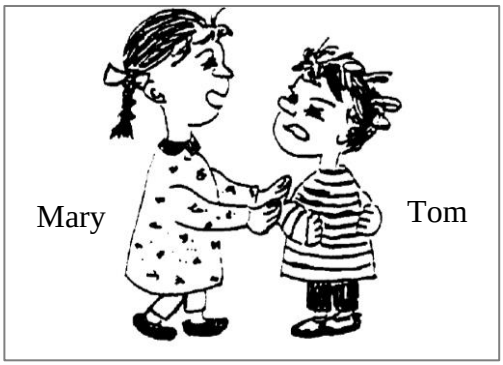
Mary was lifted by Tom. True ( ) False ( )

24. 

Mary admired the musician. True ( ) False ( )

25. 

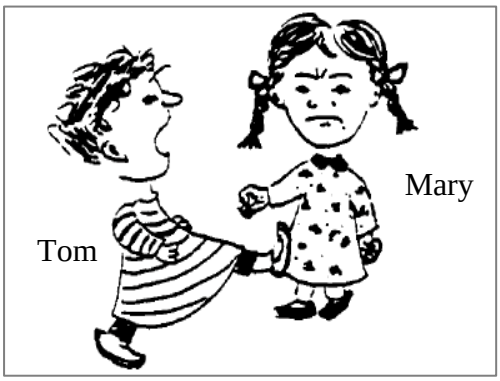
The painting fascinated Tom. True ( ) False ( )

26. 

Tom pushed Mary. True ( ) False ( )

27. 

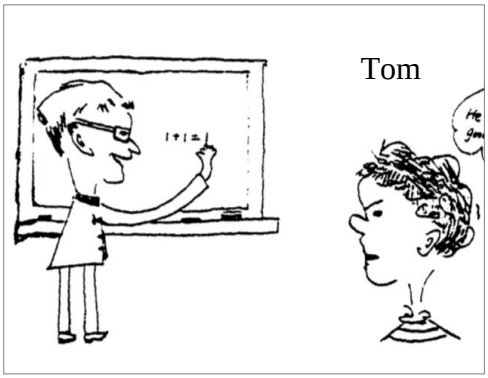
Mary feared the snowstorm. True ( ) False ( )

28. 

Tom was kicked by Mary. True ( ) False ( )

29. 

Mary liked the ice-cream. True ( ) False ( )

30. 

The teacher hated Tom. True ( ) False ( )

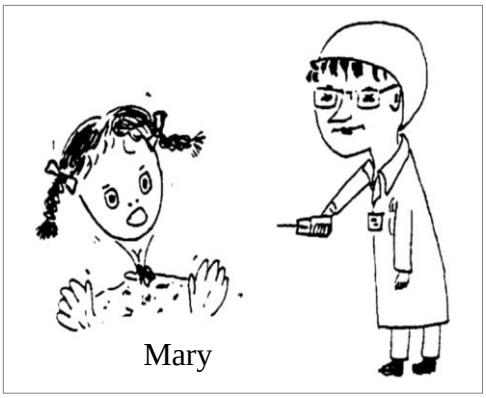
31.

The weather annoyed Tom. True ( ) False ( )

32.

The book enjoyed Tom. True ( ) False ( )

33.

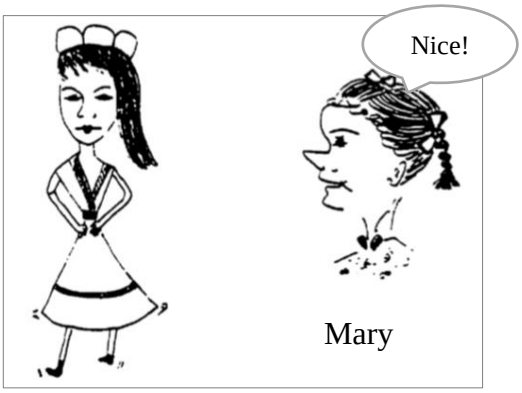


Mary feared the doctor. True ( ) False ( )

34.

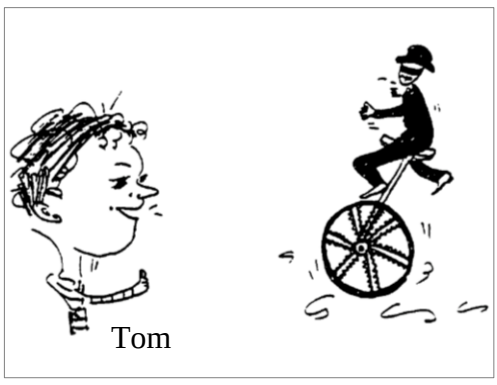
Tom admired the painting. True ( ) False ( )

35.



The model liked Mary. True ( ) False ( )

36.

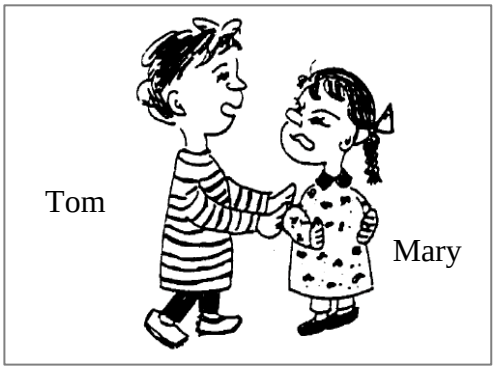


Tom amused the clown. True ( ) False ( )

37.

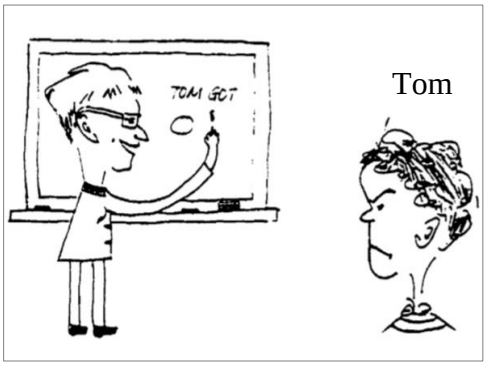
Tom hated the weather. True ( ) False ( )

38.



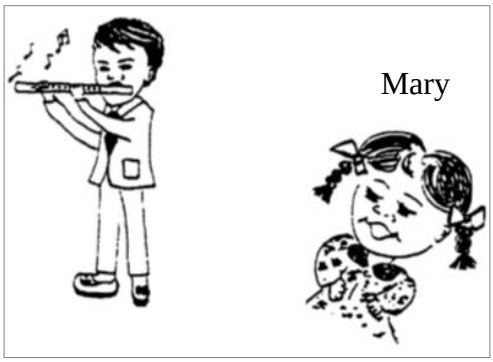
Tom was pushed by Mary. True ( ) False ( )

39.



The teacher annoyed Tom. True ( ) False ( )

40.

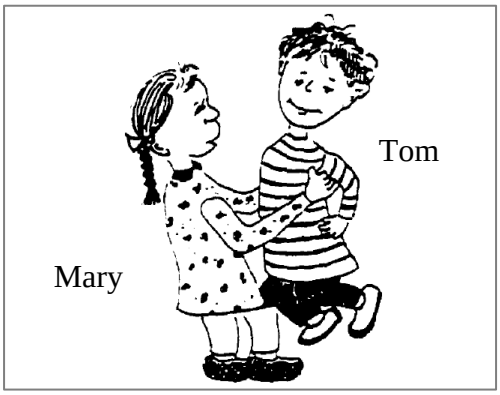


The musician admired Mary. True ( ) False ( )

41.

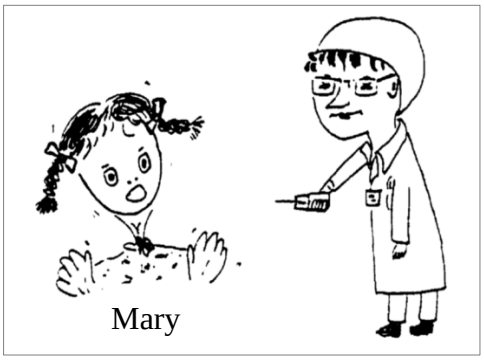
The ice-cream pleased Mary. True ( ) False ( )

42.



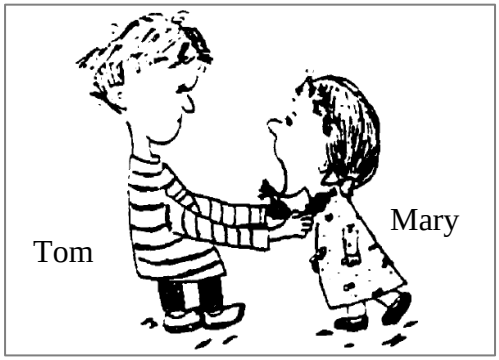
Tom was lifted by Mary. True ( ) False ( )

43.



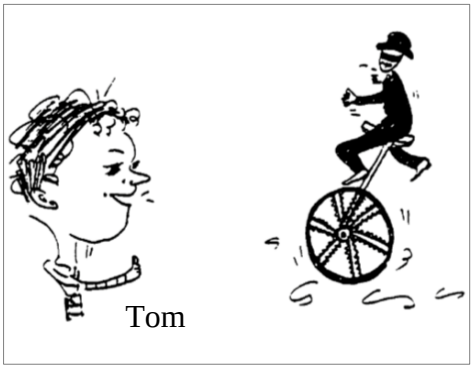
Marry frightened the doctor. True ( ) False ( )

44.



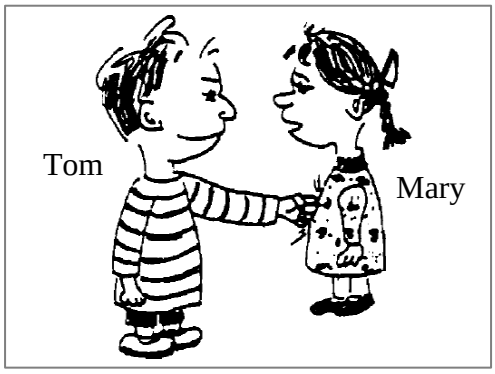
Tom was pulled by Mary. True ( ) False ( )

45.



The clown amused Tom. True ( ) False ( )

46.



Tom hit Mary. True ( ) False ( )

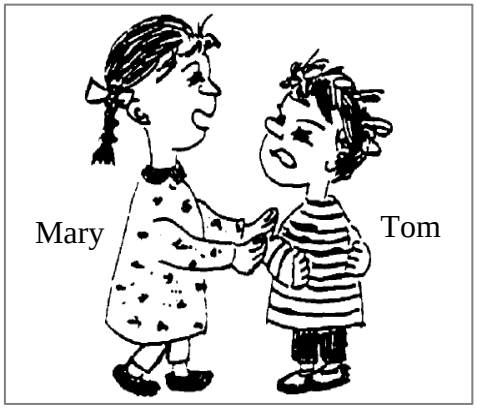
47.

Tom fascinated the painting. True ( ) False ( )

48.

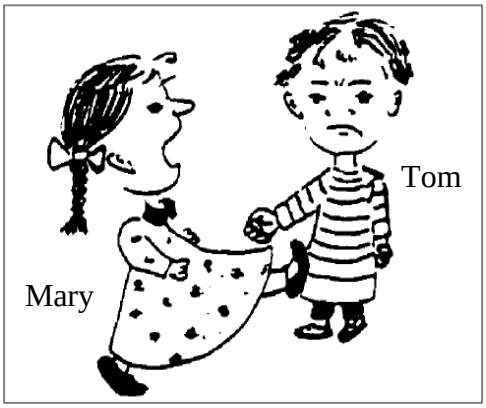
Mary frightened the snowstorm. True ( ) False ( )

49.



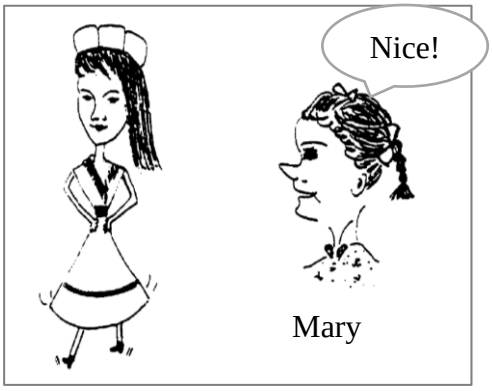
Mary pushed Tom. True ( ) False ( )

50.



Tom kicked Mary. True ( ) False ( )

51.



Mary pleased the model. True ( ) False ( )

52.

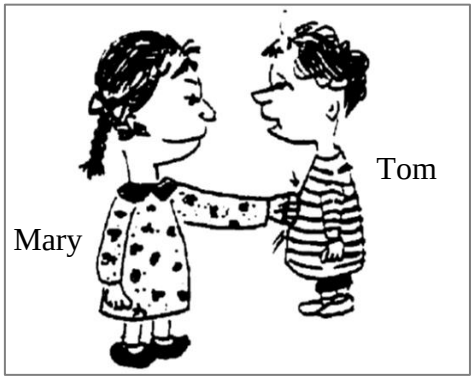
Tom annoyed the weather. True ( ) False ( )

53.

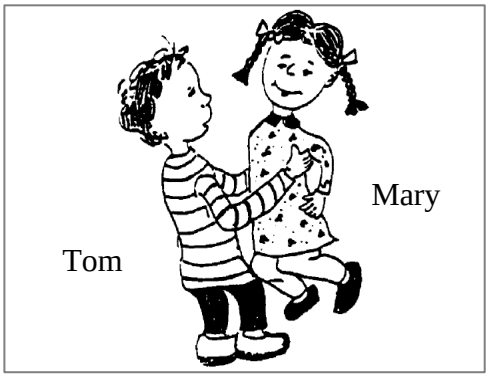
Tom enjoyed the book. True ( ) False ( )

54.

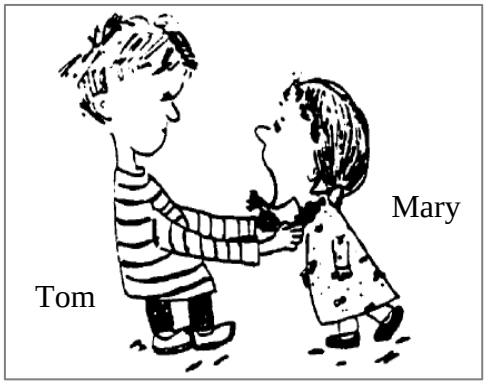
The ice-cream liked Mary. True ( ) False ( )

55. 

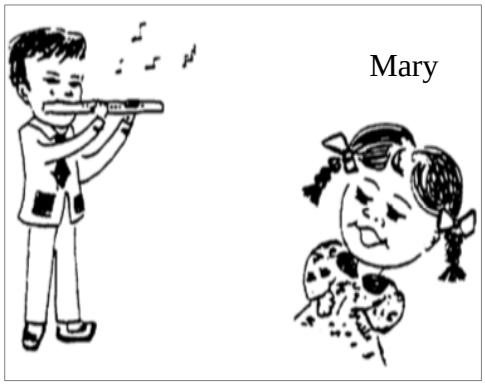
Mary was hit by Tom. True ( ) False ( )

56. 

Mary lifted Tom. True ( ) False ( )

57. 

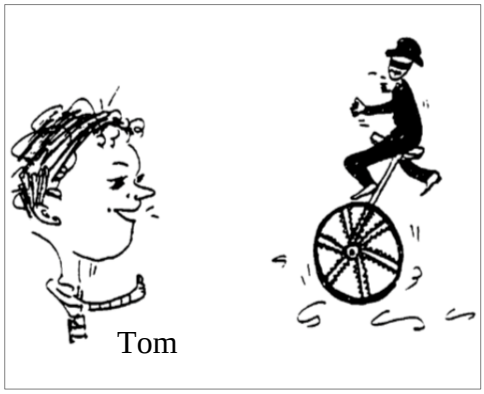
Mary was pulled by Tom. True ( ) False ( )

58. 

The musician fascinated Mary. True ( ) False ( )

59. 

The snowstorm frightened Mary. True ( ) False ( )

60. 

Tom enjoyed the clown. True ( ) False ( )

4) VOCABULARY TRANSLATION TASK

INSTRUCTION: The purpose of this measurement tool is to reveal how **the meaning of the following verbs** are interpreted by you. Please explain the meaning of the following verbs in any way you would like such as **defining, giving the Turkish equivalents,** etc.

4) SÖZCÜK ÇEVİRİ TESTİ (Turkish)

YÖNERGE (Turkish): Bu ölçme aracının amacı, aşağıdaki **eylemlerin anlamlarının** tarafınızdan nasıl yorumlandığını ortaya koymaktır. Lütfen **t*anımlamak, Türkçe karşılıklarını yazmak*** **vb.** yollardan uygun gördüğünüzü kullanarak aşağıdaki eylemlerin anlamlarını açıklayınız.

16. Enjoy :
17. Frighten :
18. Like :
19. Lift :
20. Amuse :
21. Push :
22. Fascinate :
23. Hit :
24. Annoy :
25. Fear :
26. Hate :
27. Please :
28. Admire :
29. Pull :
30. Kick :

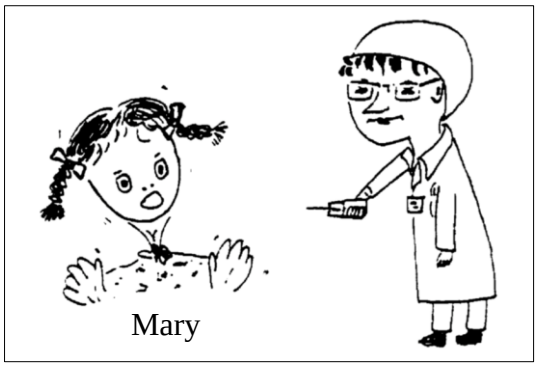
APPENDIX-7. Ten Items of the WPT for OE and SE Verbs

Little Jimmy was sick. His father took him to a hospital. The doctor gave Jimmy an injection. Jimmy ran away when he saw the needle.	Jimmy	hospital
	doctor	needle
	***frighten* (OE)**	
Leroy was traveling with his parents. Suddenly, the car broke down. He attempted to fix it, but he couldn't. His parents laughed at Leroy so much.	Leroy	car breakdown
	parents	Leroy's attempt
	***amuse* (OE)**	
Martin was driving very fast. The policeman stopped and gave him a ticket for speeding. Martin lost his control and yelled at the policeman.	Martin	police car
	policeman	speeding ticket
	***annoy* (OE)**	
Alice visited İstanbul with an experienced tour guide. She saw many touristy places. She was quite happy with her visit.	Alice	her visit
	tour guide	touristy places
	***please* (OE)**	
Charlie loves cars very much. Last week, his mother bought him many picture books about cars. He read them with a lot of interest.	Charlie	books about cars
	mother	cars
	***fascinate* (OE)**	
Gloria wanted to move to a new apartment. But she was very undecided because of her father. He was a very rigid person and had no tolerance.	Gloria	the idea of moving
	father	father's reaction
	***fear* (SE)**	
The mother spent her off-day with her son, Jeffrey. He swam in the pool and ate ice-cream. Jeffrey was very happy.	Jeffrey	swimming
	mother	the off-day
	***enjoy* (SE)**	
John saw a drowning girl in the lake. He jumped into the lake and saved the girl. He became a hero in the eyes of his schoolmates.	John	life saving
	schoolmates	John's courage
	***admire* (SE)**	
During World War II, Kaneko's home was destroyed by a bomb. He ran away from the war and soldiers. Then, he moved to the mountains.	Kaneko	atomic bomb
	soldiers	war
	***hate* (SE)**	
Wes Cherry created the computer game Solitaire out of boredom. Then, his bosses wanted to add it to Windows in 1990.	Wes Cherry	Solitaire
	bosses	computer game
	***like* (SE)**	

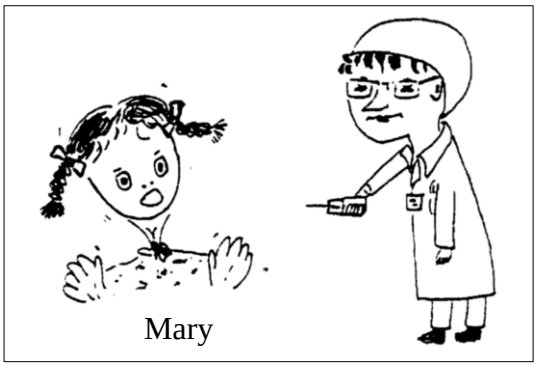
APPENDIX-8. The Six Structures in AJT

Types	OE Verbs - Acceptable	
Type 1	**Transitive sentences with Experiencer Object (EO)**	
	Frighten	(1) The fire alarm frightened the hotel receptionist.
	Annoy	(8) The Youtube posting annoyed the rock musician.
	Amuse	(23) The talk show amused the crowded audience.
	Please	(17) The income opportunity pleased the novice intern.
	Fascinate	(10) The Northern Lights fascinated the young traveler.
	OE Verbs - Unacceptable	
Type 2	**Transitive sentences with Experiencer Subject (ES)**	
	Frighten	(20) The airline passenger frightened the light turbulence.
	Annoy	(22) The company member annoyed the racist statements.
	Amuse	(11) The kindergarten children amused the circus show.
	Please	(4) The teenage girl pleased the musical performance.
	Fascinate	(25) The social scientist fascinated the political theory.
	SE Verbs - Acceptable	
Type 3	**Transitive sentences with Experiencer Subject (ES)**	
	Fear	(16) The prison guardian feared the sudden noise.
	Hate	(26) The elderly grandfather hated the city life.
	Enjoy	(6) The foreign guest enjoyed the dinner party.
	Like	(15) The computer engineer liked the software program.
	Admire	(28) The art-lovers admired the painting exhibition.
	SE Verbs - Unacceptable	
Type 4	**Transitive sentences with Experiencer Object (OE)**	
	Fear	(29) The ghost story feared the little children.
	Hate	(12) The business meetings hated the company members.
	Enjoy	(19) The cooking workshop enjoyed the new participant.
	Like	(30) The business project liked the candidate investors.
	Admire	(13) The pocket watch admired the rich customer.
	Agentive Verbs (Fillers/Distracters) - Acceptable	
Type 5	*Lift*	(2) The preschool teacher lifted the toy box.
	Pull	(21) The street robber pulled the expensive handbag.
	Push	(5) The nurse assistant pushed the empty wheelchair.
	Hit	(24) The professional boxer hit the punching bag.
	Kick	(9) The experienced player kicked the soccer ball.
	Agentive Verbs (Fillers/Distracters) - Unacceptable	
Type 6	*Lift*	(14) The broken lamp lifted the cleaning personnel.
	Pull	(3) The painful tooth pulled the novice dentist.
	Push	(18) The standing bookshelf pushed the library officer.
	Hit	(7) The observation tower hit the airline pilot.
	Kick	(27) The hospital walls kicked the emergency patient.

APPENDIX-9. PIT Items Ordered Systematically as OE, SE and AG verbs (T = True; F = False; A = Animate; IN = Inanimate; AC = Active; P = Passive)



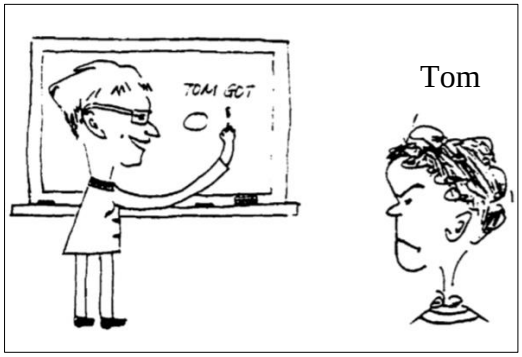
22. The doctor frightened Marry. (T - A)



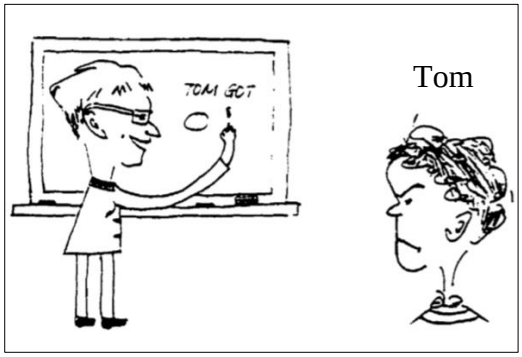
43. Marry frightened the doctor. (F - A)

59. The snowstorm frightened Mary. (T - IN).

48. Marry frightened the snowstorm. (F - IN)



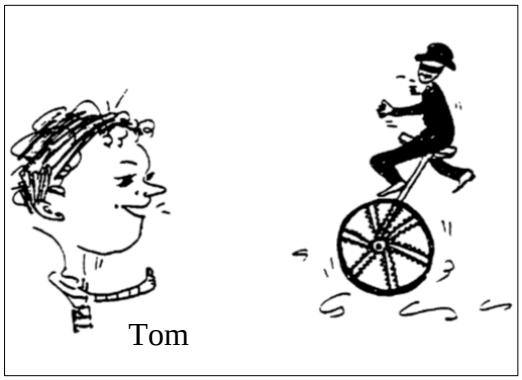
39. The teacher annoyed Tom. (T - A)



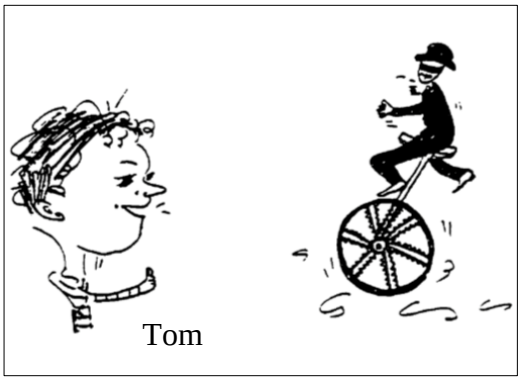
5. Tom annoyed the teacher. (F - A)

31. The weather annoyed Tom. (T - IN)

52. Tom annoyed the weather. (F - IN)



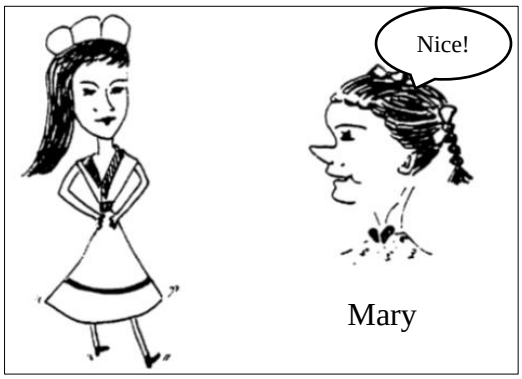
45. The clown amused Tom. (T - A)



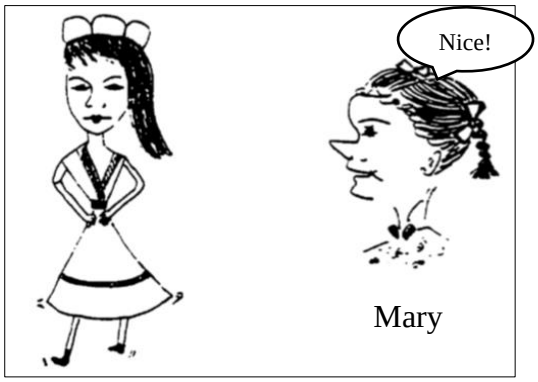
36. Tom amused the clown. (F - A)

20. The book amused Tom. (T - IN)

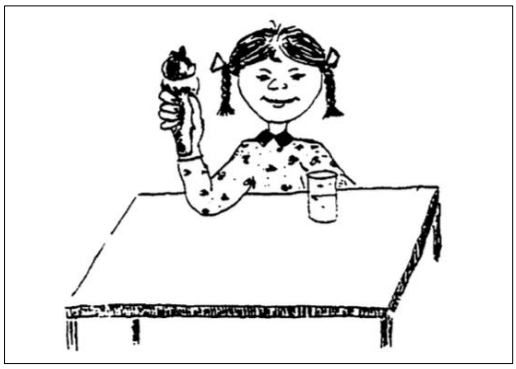
8. Tom amused the book. (F - IN)



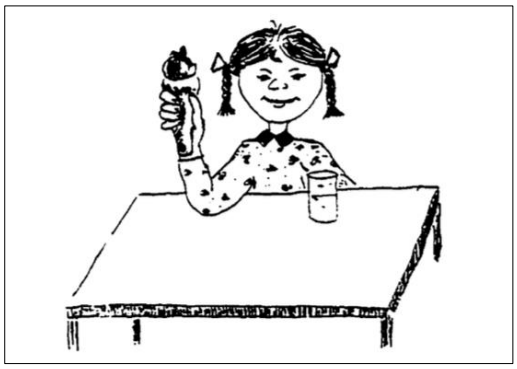
9. The model pleased Mary. (T - A)



51. Mary pleased the model. (F - A)



41. The ice-cream pleased Mary. (T - IN)



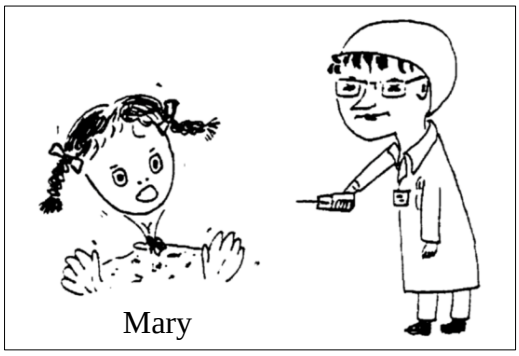
19. Mary pleased the ice-cream. (F - IN)

58. The musician fascinated Mary. (T - A)

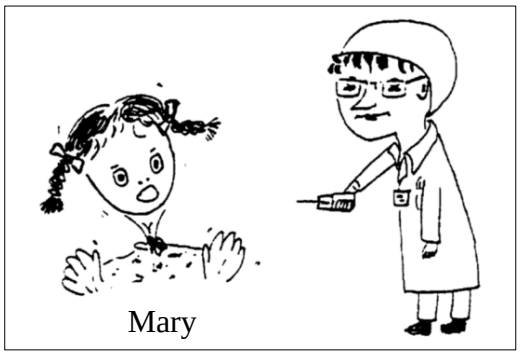
12. Mary fascinated the musician. (F - A)

25. The painting fascinated Tom. (T - IN).

47. Tom fascinated the painting. (F - IN)



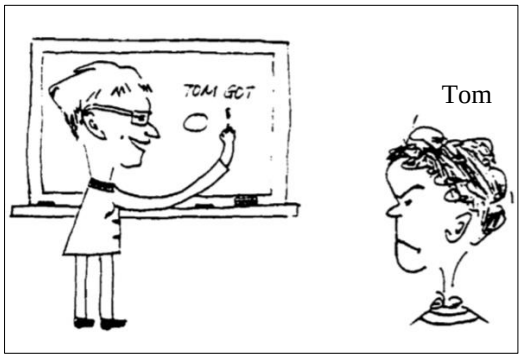
33. Mary feared the doctor. (T - A)



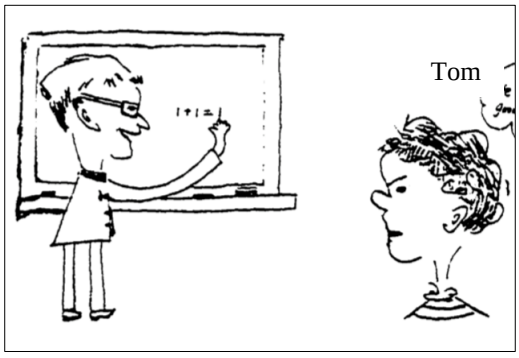
3. The doctor feared Mary. (F - A)

27. Mary feared the snowstorm. (T - IN)

10. The snowstorm feared Mary. (F - IN)



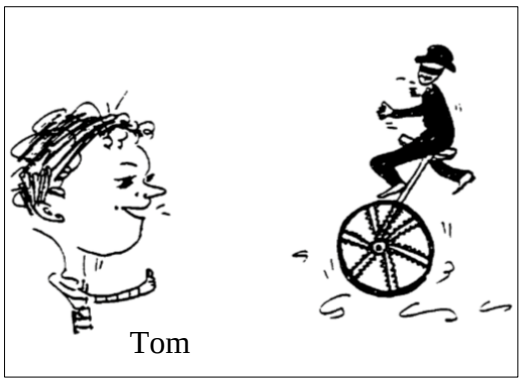
17. Tom hated the teacher. (T - A)



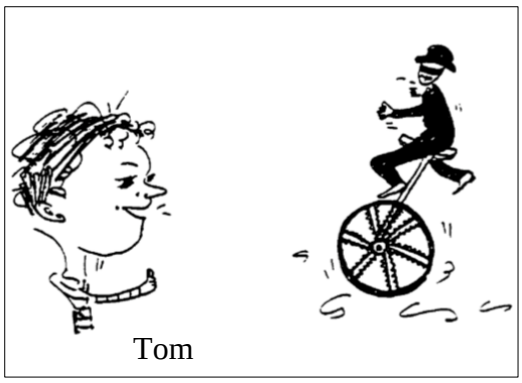
30. The teacher hated Tom. (F - A)

37. Tom hated the weather. (T - IN)

21. The weather hated Tom. (F - IN)



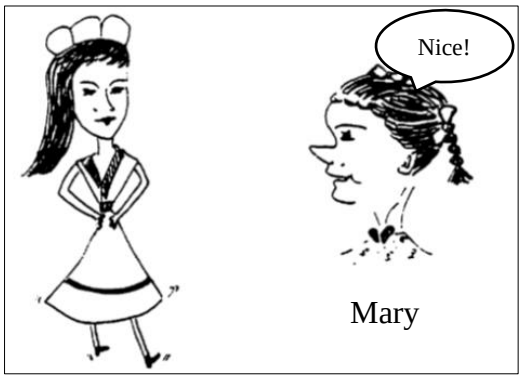
60. Tom enjoyed the clown. (T - A)



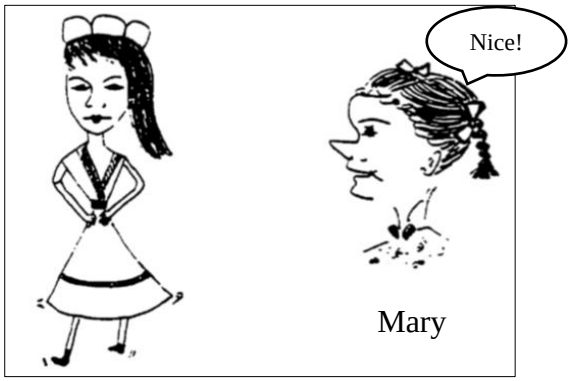
13. The clown enjoyed Tom. (F - A)

53. Tom enjoyed the book. (T - IN)

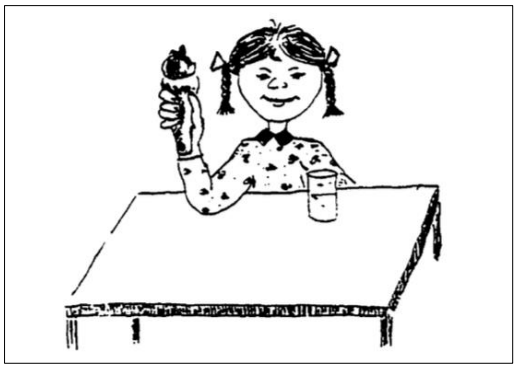
32. The book enjoyed Tom. (F - IN)



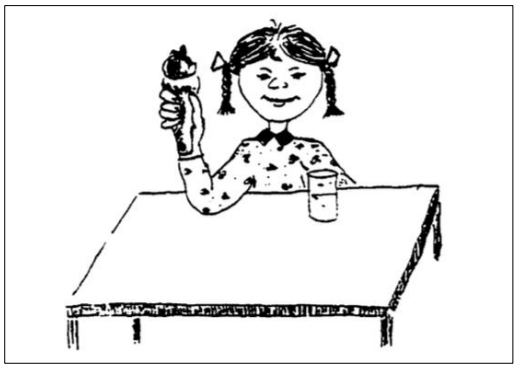
15. Mary liked the model. (T - A)



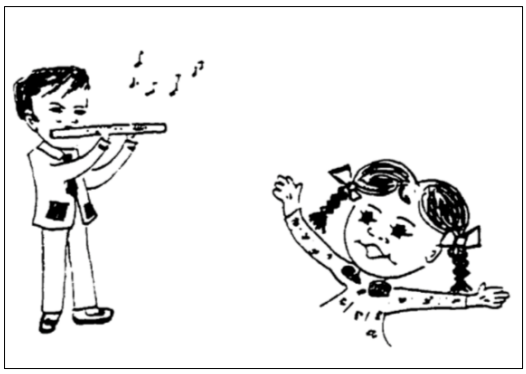
35. The model liked Mary. (F - A)



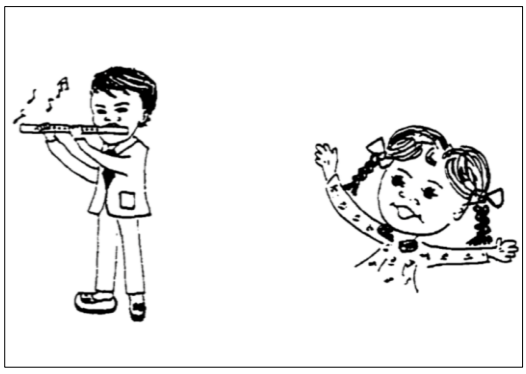
29. Mary liked the ice-cream. (T - IN)



54. The ice-cream liked Mary. (F - IN)



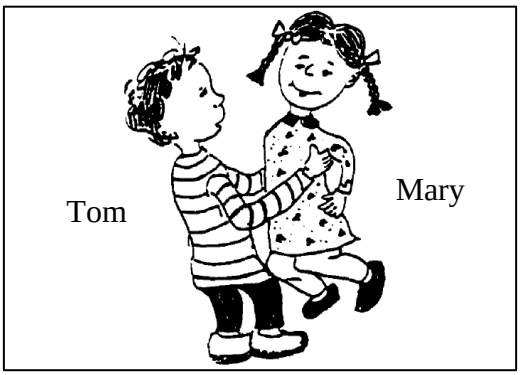
24. Mary admired the musician. (T - A)



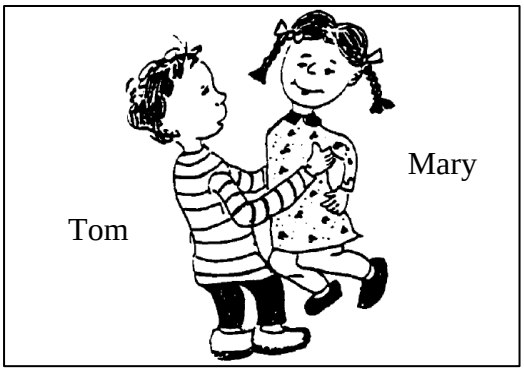
40. The musician admired Mary. (F – A)

34. Tom admired the painting. (T - IN)

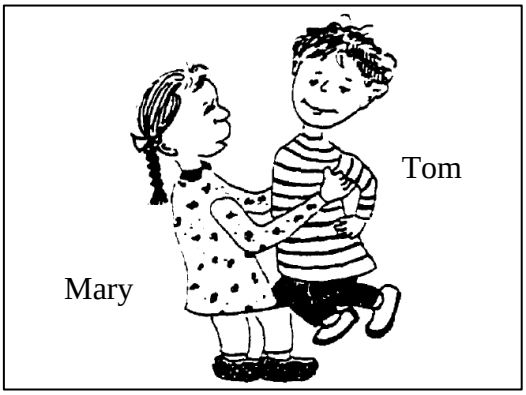
4. The painting admired Tom. (F – IN)



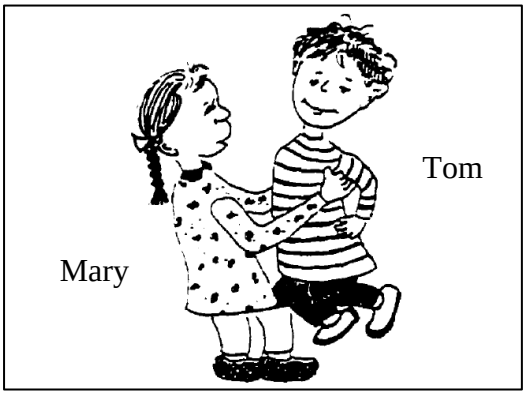
1. Tom lifted Mary. (T – AC)



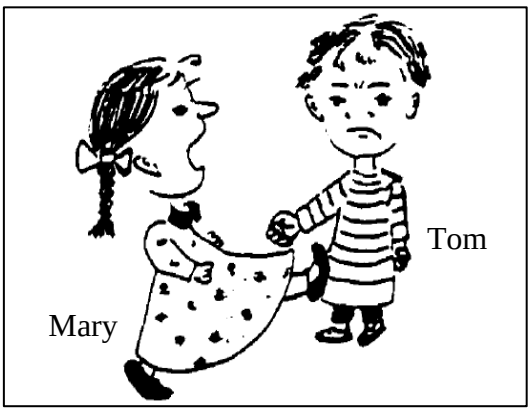
56. Mary lifted Tom. (F – AC)



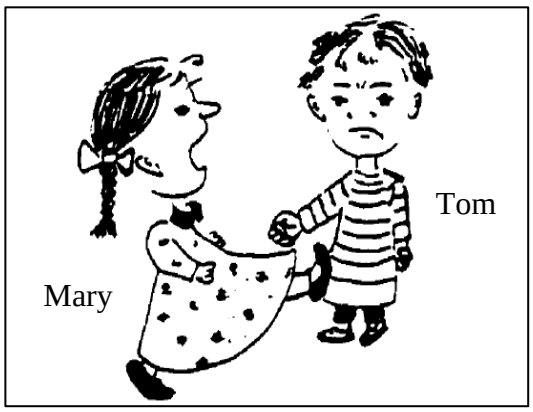
42. Tom was lifted by Mary. (T – P)



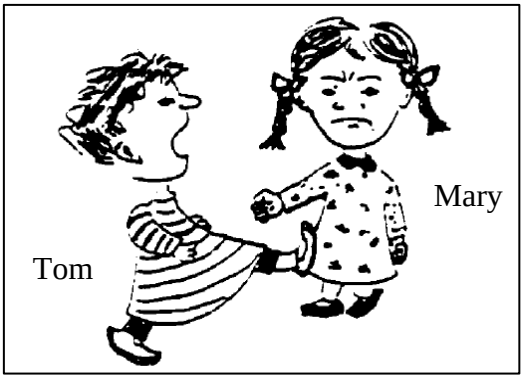
23. Mary was lifted by Tom. (F – P)



2. Mary kicked Tom. (T – AC)

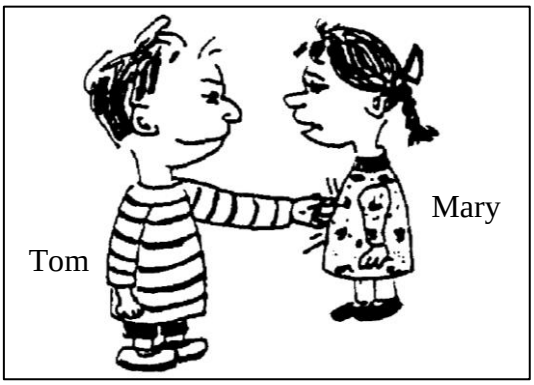


50. Tom kicked Mary. (F – AC)

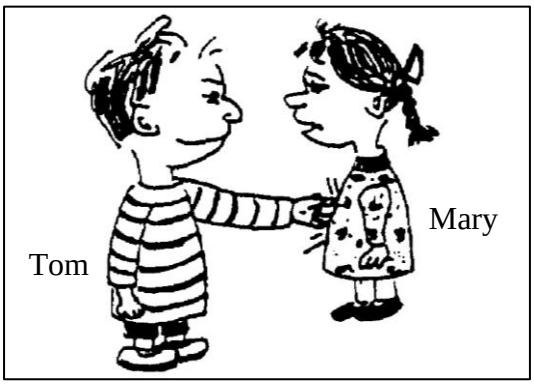


14. Mary was kicked by Tom. (T – P)

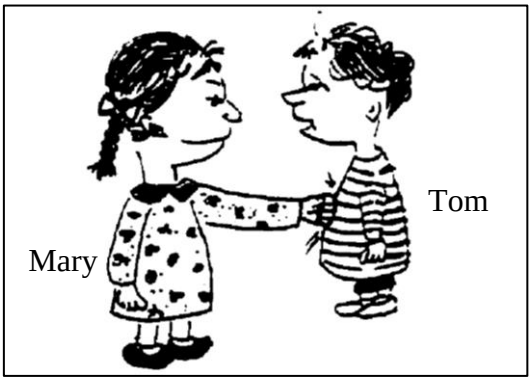
28. Tom was kicked by Mary. (F – P)



46. Tom hit Mary. (T – AC)



6. Mary hit Tom. (F – AC)



18. Tom was hit by Mary. (T – P)

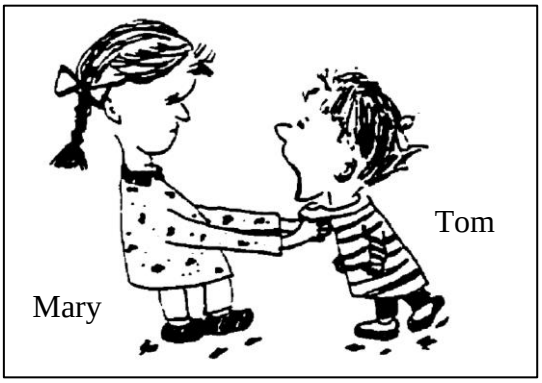
55. Mary was hit by Tom. (F – P)

49. Mary pushed Tom. (T – AC)

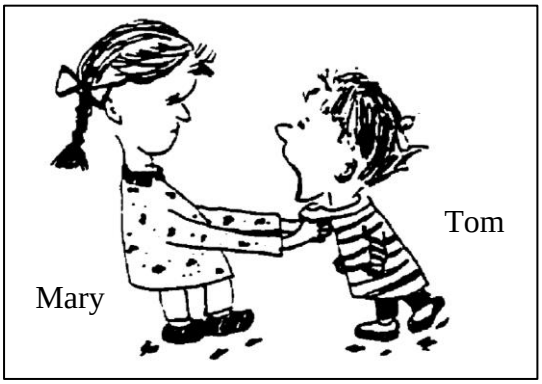
26. Tom pushed Mary. (F – AC)

7. Mary was pushed by Tom. (T – P)

38. Tom was pushed by Mary. (F – P)



11. Mary pulled Tom. (T – AC)



16. Tom pulled Mary. (F – AC)

57. Mary was pulled by Tom. (T – P)

44. Tom was pulled by Mary. (F – P)

APPENDIX-10. Number of Participants Responding Correctly and Item Difficulty Index For QPT, AJT and PIT

Table 10.1 *QPT – Number of participants responding correctly (n) and item difficulty index (IDI)*

Question	***n* (50)**	**IDI (IF)**	**Question**	***n* (50)**	**IDI (IF)**	**Question**	***n* (50)**	**IDI (IF)**
Q1	50	1	*Q5*	39	0.78	*Q55*	30	0.60
Q2	50	1	*Q33*	39	0.78	*Q44*	28	0.56
Q3	50	1	*Q43*	37	0.74	*Q58*	27	0.54
Q6	50	1	*Q31*	37	0.74	*Q34*	26	0.52
Q8	50	1	*Q24*	36	0.72	*Q35*	26	0.52
Q19	50	1	*Q57*	36	0.72	*Q51*	26	0.52
Q4	49	0.98	*Q22*	35	0.70	*Q26*	25	0.50
Q7	48	0.96	*Q32*	35	0.70	*Q41*	24	0.48
Q10	47	0.94	*Q20*	34	0.68	*Q28*	23	0.46
Q12	47	0.94	*Q48*	34	0.68	*Q40*	22	0.44
Q11	45	0.90	*Q25*	33	0.66	*Q47*	22	0.44
Q9	44	0.88	*Q52*	33	0.66	*Q13*	21	0.42
Q15	44	0.88	*Q49*	32	0.64	*Q38*	17	0.34
Q36	44	0.88	*Q27*	31	0.62	*Q60*	16	0.32
Q42	43	0.86	*Q30*	31	0.62	*Q46*	15	0.30
Q18	42	0.84	*Q45*	31	0.62	*Q39*	14	0.28
Q21	42	0.84	*Q54*	31	0.62	*Q56*	12	0.24
Q50	42	0.84	*Q16*	30	0.60	*Q59*	11	0.22
Q23	41	0.82	*Q17*	30	0.60	*Q53*	6	0.12
Q14	40	0.80	*Q29*	30	0.60	*Q37*	2	0.04

IF = Item facility – IDI = Item Difficulty Index

Table 10.2. *AJT - Number of participants responding correctly (n) and item difficulty index (IDI)*

OE			**SE**			**Agentive (Fillers)**		
	N (47)	IDI (IF)		*N* (47)	IDI (IF)		*N* (47)	IDI (IF)
Item 1	42	0.8936	*Item 6*	44	0.9361	*Item 5*	45	0.9574
Item 10	38	0.8085	*Item 15*	44	0.9361	*Item 2*	44	0.9361
Item 23	37	0.7872	*Item 26*	41	0.8723	*Item 9*	44	0.9361
Item 4	36	0.7659	*Item 12*	40	0.8510	*Item 24*	42	0.8936
Item 20	33	0.7021	*Item 28*	36	0.7659	*Item 27*	42	0.8936
Item 17	31	0.6595	*Item 30*	36	0.7659	*Item 18*	41	0.8723
Item 11	29	0.6170	*Item 19*	34	0.7234	*Item 14*	40	0.8510
Item 22	28	0.5957	*Item 13*	29	0.6170	*Item 21*	40	0.8510
Item 25	28	0.5957	*Item 16*	23	0.4893	*Item 3*	39	0.8297
Item 8	26	0.5531	*Item 29*	19	0.4042	*Item 7*	37	0.7872

Table 10.3. *PIT - Number of participants responding correctly (n) and item difficulty index (IDI)*

OE Verbs			**SE Verbs**			**Agentive Verbs**		
AS +			**AO +**			**Active**		
	n	**IDI**		***n***	**IDI**		***n***	**IDI**
Item 43	43	0.91	*Item 15*	47	1	*Item 1*	47	1
Item 58	43	0.91	*Item 35*	46	0.97	*Item 2*	47	1
Item 22	42	0.89	*Item 30*	46	0.97	*Item 26*	47	1
Item 45	42	0.89	*Item 17*	45	0.95	*Item 49*	46	0.97
Item 9	39	0.82	*Item 24*	34	0.72	*Item 50*	46	0.97
Item 12	39	0.82	*Item 40*	32	0.68	*Item 6*	45	0.95
Item 36	39	0.82	*Item 60*	32	0.68	*Item 16*	45	0.95
Item 51	39	0.82	*Item 13*	25	0.53	*Item 46*	45	0.95
Item 5	37	0.78	*Item 33*	23	0.48	*Item 56*	45	0.95
Item 39	37	0.78	*Item 3*	21	0.44	*Item 11*	44	0.93
AS -			**AO -**			**Passive**		
	n	**IDI**		***n***	**IDI**		***n***	**IDI**
Item 59	43	0.91	*Item 54*	47	1	*Item 14*	47	1
Item 25	42	0.89	*Item 29*	46	0.97	*Item 18*	47	1
Item 20	41	0.87	*Item 37*	45	0.95	*Item 28*	47	1
Item 41	41	0.87	*Item 21*	44	0.93	*Item 7*	45	0.95
Item 31	40	0.85	*Item 53*	44	0.93	*Item 42*	45	0.95
Item 8	36	0.76	*Item 32*	38	0.80	*Item 55*	45	0.95
Item 48	36	0.76	*Item 34*	37	0.78	*Item 23*	44	0.93
Item 47	35	0.74	*Item 27*	28	0.59	*Item 38*	44	0.93
Item 52	33	0.70	*Item 4*	27	0.57	*Item 57*	44	0.93
Item 19	29	0.61	*Item 10*	19	0.40	*Item 44*	43	0.91

APPENDIX-11. Answer Keys Used While Scoring AJT and PIT

Table 11.1. *Answer key – Acceptability judgement task (AJT)*

1. Acceptable (1 / 2)	**11.** Unacceptable (-1 / -2)	**21.** Acceptable (1 / 2)
2. Acceptable (1 / 2)	**12.** Unacceptable (-1 / -2)	**22.** Unacceptable (-1 / -2)
3. Unacceptable (-1 / -2)	**13.** Unacceptable (-1 / -2)	**23.** Acceptable (1 / 2)
4. Unacceptable (-1 / -2)	**14.** Unacceptable (-1 / -2)	**24.** Acceptable (1 / 2)
5. Acceptable (1 / 2)	**15.** Acceptable (1 / 2)	**25.** Unacceptable (-1 / -2)
6. Acceptable (1 / 2)	**16.** Acceptable (1 / 2)	**26.** Acceptable (1 / 2)
7. Unacceptable (-1 / -2)	**17.** Acceptable (1 / 2)	**27.** Unacceptable (-1 / -2)
8. Acceptable (1 / 2)	**18.** Unacceptable (-1 / -2)	**28.** Acceptable (1 / 2)
9. Acceptable (1 / 2)	**19.** Unacceptable (-1 / -2)	**29.** Unacceptable (-1 / -2)
10. Acceptable (1 / 2)	**20.** Unacceptable (-1 / -2)	**30.** Unacceptable (-1 / -2)

Table 11.2. *Answer key – Picture identification task (PIT)*

1. True	**11.** True	**21.** False	**31.** True	**41.** True	**51.** False
2. True	**12.** False	**22.** True	**32.** False	**42.** True	**52.** False
3. False	**13.** False	**23.** False	**33.** True	**43.** False	**53.** True
4. False	**14.** True	**24.** True	**34.** True	**44.** False	**54.** False
5. False	**15.** True	**25.** True	**35.** False	**45.** True	**55.** False
6. False	**16.** False	**26.** False	**36.** False	**46.** True	**56.** False
7. True	**17.** True	**27.** True	**37.** True	**47.** False	**57.** True
8. False	**18.** True	**28.** False	**38.** False	**48.** False	**58.** True
9. True	**19.** False	**29.** True	**39.** True	**49.** True	**59.** True
10. False	**20.** True	**30.** False	**40.** False	**50.** False	**60.** True

APPENDIX-12. General Descriptive Statistics for PIT & AJT

Table 12.1. *PIT - OE Verbs: Accuracy scores for individual OE verbs (both), items with AS and items with InAS across language levels*

OE Verb	Language Level	Structure	Accuracy Score				
			Min.	Max.	*M*	*SD*	*SEM*
frighten	A2	AS	0	2	1	0.794	0.127
		InAS	0	2	1.384	0.747	0.119
		Both	0	4	2.384	1.462	0.234
	B1	AS	0	2	1.812	0.479	0.053
		InAS	0	2	1.737	0.496	0.055
		Both	0	4	3.550	0.870	0.097
	B2	AS	1	2	1.896	0.306	0.032
		InAS	1	2	1.908	0.290	0.031
		Both	0	4	3.804	0.426	0.045
	C1	AS	2	2	2.000	0	0
		InAS	1	2	1.962	0.192	0.037
		Both	3	4	3.962	0.192	0.037
	C2	AS	2	2	2	0	0
		InAS	2	2	2	0	0
		Both	4	4	4	0	0
	Total	AS	0	2	1.736	0.566	0.036
		InAS	0	2	1.774	0.492	0.031
		Both	0	4	3.510	0.965	0.062
annoy	A2	AS	0	2	1.076	0.839	0.134
		InAS	0	2	1.153	0.779	0.124
		Both	0	4	2.230	1.494	0.239
	B1	AS	0	2	1.512	0.729	0.081
		InAS	0	2	1.675	0.631	0.070
		Both	0	4	3.187	1.223	0.136
	B2	AS	0	2	1.804	0.524	0.056
		InAS	0	2	1.839	0.427	0.045
		Both	0	4	3.643	0.806	0.086
	C1	AS	1	2	1.962	0.192	0.037
		InAS	0	2	1.888	0.423	0.081
		Both	2	4	3.851	0.456	0.087
	C2	AS	2	2	2	0	0
		InAS	1	2	1.833	0.408	0.166
		Both	3	4	3.833	0.408	0.166
	Total	AS	0	2	1.610	0.688	0.044
		InAS	0	2	1.677	0.039	0.615
		Both	0	4	3.288	1.179	0.076
amuse	A2	AS	0	2	1.230	0.809	0.129
		InAS	0	2	1.076	0.839	0.134
		Both	0	4	2.307	1.558	0.249
	B1	AS	0	2	1.712	0.577	0.064
		InAS	0	2	1.475	0.693	0.077
		Both	0	4	3.187	1.080	0.120
	B2	AS	1	2	1.873	0.334	0.035
		InAS	0	2	1.666	0.658	0.070
		Both	1	4	3.540	0.774	0.083
	C1	AS	1	2	1.925	0.266	0.051
		InAS	1	2	1.888	0.320	0.061
		Both	2	4	3.814	0.483	0.093
	C2	AS	1	2	1.833	0.408	0.166

		InAS	2	2	2	0	0
		Both	3	4	3.833	0.408	0.166
	Total	AS	0	2	1.719	0.565	0.036
		InAS	0	2	1.539	0.708	0.045
		Both	0	4	3.259	1.115	0.072
please	A2	AS	0	2	0.692	0.832	0.133
		InAS	0	2	0.846	0.670	0.107
		Both	0	4	1.538	1.294	0.207
	B1	AS	0	2	1.400	0.739	0.082
		InAS	0	2	1.237	0.815	0.091
		Both	0	4	2.637	1.361	0.152
	B2	AS	0	2	1.770	0.449	0.048
		InAS	0	2	1.781	0.468	0.050
		Both	1	4	3.551	0.711	0.076
	C1	AS	1	2	1.962	0.192	0.037
		InAS	1	2	1.777	0.423	0.081
		Both	3	4	3.740	0.446	0.085
	C2	AS	2	2	2	0	0
		InAS	1	2	1.833	0.408	0.166
		Both	3	4	3.833	0.408	0.166
	Total	AS	0	2	1.497	0.047	0.732
		InAS	0	2	1.447	0.724	0.046
		Both	0	4	2.945	1.293	0.083
fascinate	A2	AS	0	2	1.076	0.623	0.099
		InAS	0	2	1.230	0.705	0.112
		Both	0	4	2.307	0.922	0.147
	B1	AS	0	2	1.637	0.600	0.067
		InAS	0	2	1.637	0.641	0.071
		Both	0	4	3.275	1.067	0.119
	B2	AS	0	2	1.873	0.367	0.039
		InAS	0	2	1.873	0.426	0.045
		Both	1	4	3.747	0.718	0.077
	C1	AS	1	2	1.962	0.192	0.037
		InAS	0	2	1.888	0.423	0.081
		Both	2	4	3.851	0.456	0.087
	C2	AS	1	2	1.833	0.408	0.166
		InAS	2	2	2	0	0
		Both	3	4	3.833	0.408	0.166
	Total	AS	0	2	1.673	0.567	0.036
		InAS	0	2	1.694	0.596	0.038
		Both	0	4	3.368	0.999	0.064

Table 12.2. *PIT - SE Verbs: Accuracy scores for individual SE verbs (both), items with AO and items with InAO across language levels*

SE Verb	Language Level	Structure	Raw Score				
			Min.	Max.	*M*	*SD*	*SEM*
fear	A2	AO	0	2	1.538	0.755	0.120
		InAO	0	2	1	0.794	0.127
		Both	0	4	2.538	1.411	0.226
	B1	AO	0	2	0.675	0.689	0.077
		InAO	0	2	0.737	0.807	0.090
		Both	0	4	1.412	1.347	0.150
	B2	AO	0	2	0.827	0.838	0.089
		InAO	0	2	0.804	0.804	0.086

		Both	0	4	1.632	1.533	0.164
	C1	AO	0	2	1.185	0.878	0.169
		InAO	0	2	1.333	0.733	0.141
		Both	0	4	2.518	1.503	0.289
	C2	AO	2	2	2	0	0
		InAO	1	2	1.833	0.408	0.166
		Both	3	4	3.833	0.408	0.166
	Total	AO	0	2	0.962	0.841	0.054
		InAO	0	2	0.899	0.818	0.052
		Both	0	4	1.386	1.342	0.086
hate	A2	AO	2	2	2	0	0
		InAO	1	2	1.846	0.365	0.058
		Both	3	4	3.846	0.365	0.058
	B1	AO	1	2	1.950	0.219	0.024
		InAO	1	2	1.912	0.284	0.031
		Both	2	4	3.862	0.413	0.046
	B2	AO	1	2	1.988	0.107	0.011
		InAO	1	2	1.965	0.183	0.019
		Both	3	4	3.954	0.210	0.022
	C1	AO	2	2	2	0	0
		InAO	2	2	2	0	0
		Both	4	4	4	0	0
	C2	AO	2	2	2	0	0
		InAO	2	2	2	0	0
		Both	4	4	4	0	0
	Total	AO	1	2	1.979	0.143	0.009
		InAO	1	2	1.933	0.250	0.016
		Both	0	4	3.484	0.858	0.055
enjoy	A2	AO	0	2	1.230	0.705	0.113
		InAO	1	2	1.538	0.505	0.080
		Both	1	4	2.769	1.062	0.170
	B1	AO	0	2	1.225	0.745	0.083
		InAO	0	2	1.600	0.648	0.072
		Both	0	4	2.825	1.177	0.131
	B2	AO	0	2	1.563	0.623	0.066
		InAO	0	2	1.781	0.515	0.055
		Both	0	4	3.344	0.950	0.101
	C1	AO	0	2	1.814	0.483	0.093
		InAO	0	2	1.851	0.456	0.087
		Both	0	4	3.667	0.877	0.168
	C2	AO	1	2	1.833	0.408	0.166
		InAO	2	2	2	0	0
		Both	3	4	3.833	0.408	0.166
	Total	AO	0	2	1.431	0.693	0.044
		InAO	0	2	1.694	0.560	0.036
		Both	0	4	3.005	1.150	0.074
like	A2	AO	2	2	2	0	0
		InAO	1	2	1.846	0.365	0.058
		Both	3	4	3.846	0.365	0.058
	B1	AO	1	2	1.987	0.111	0.012
		InAO	2	2	2	0	0
		Both	3	4	3.987	0.111	0.012
	B2	AO	1	2	1.988	0.107	0.011
		InAO	2	2	2	0	0
		Both	3	4	3.988	0.107	0.011
	C1	AO	2	2	2	0	0
		InAO	0	2	1.925	0.384	0.074
		Both	2	4	3.925	0.384	0.074

	C2	AO	2	2	2	0	0
		InAO	2	2	2	0	0
		Both	4	4	4	0	0
	Total	AO	1	2	1.991	0.091	0.005
		InAO	0	2	1.966	0.202	0.013
		Both	0	4	3.484	0.938	0.060
admire	A2	AO	0	2	1.384	0.633	0.101
		InAO	0	2	1.153	0.670	0.107
		Both	1	4	2.538	1.096	0.175
	B1	AO	0	2	1.512	0.746	0.083
		InAO	0	2	1.450	0.691	0.077
		Both	0	4	2.962	1.247	0.139
	B2	AO	0	2	1.678	0.560	0.060
		InAO	0	2	1.666	0.603	0.064
		Both	0	4	3.344	0.950	0.101
	C1	AO	0	2	1.814	0.483	0.093
		InAO	0	2	1.851	0.456	0.087
		Both	0	4	3.666	0.832	0.160
	C2	AO	1	2	1.833	0.408	0.166
		InAO	2	2	2	0	0
		Both	3	4	3.833	0.408	0.166
	Total	AO	0	2	1.594	0.640	0.041
		InAO	0	2	1.539	0.659	0.042
		Both	0	4	2.940	1.254	0.081

Table 12.3: *PIT - OE and SE verbs: General descriptive statistics for the individual items across language level*

	Language Level	Raw Score					ACU (f)	ACU (%)
		Min.	Max.	*M*	*SD*	*SEM*		
1. Item 22 (OE_frighten / T / AS)	A2	0	1	0.62	0.493	0.079		
	B1	0	1	0.94	0.244	0.027		
	B2	0	1	0.93	0.255	0.027		
	C1	1	1	1	0	0		
	C2	1	1	1	0	0		
	Total	0	1	0.89	0.312	0.020	213	89.12
2. Item 43 (OE_frighten / F / AS)	A2	0	1	0.38	0.493	0.079		
	B1	0	1	0.88	0.333	0.037		
	B2	0	1	0.97	0.184	0.020		
	C1	1	1	1	0	0		
	C2	1	1	1	0	0		
	Total	0	1	0.85	0.362	0.023	202	84.51
3. Item 59 (OE_frighten / T / InAS)	A2	0	1	0.85	0.366	0.059		
	B1	0	1	0.93	0.265	0.030		
	B2	0	1	0.98	0.151	0.016		
	C1	1	1	1	0	0		
	C2	1	1	1	0	0		
	Total	0	1	0.94	0.235	0.015	225	94.14
4. Item 48 (OE_frighten / F / InAS)	A2	0	1	0.54	0.505	0.081		
	B1	0	1	0.81	0.393	0.044		
	B2	0	1	0.93	0.255	0.027		
	C1	0	1	0.96	0.196	0.038		
	C2	1	1	1	0	0		
	Total	0	1	0.83	0.374	0.024	199	83.26
5. Item 39 (OE_annoy / T / AS)	A2	0	1	0.69	0.468	0.075		
	B1	0	1	0.78	0.420	0.047		
	B2	0	1	0.90	0.306	0.033		

	C1	1	1	1	0	0		
	C2	1	1	1	0	0		
	Total	0	1	0.84	0.370	0.024	200	83.68
6. Item 5 (OE_annoy / F / AS)	A2	0	1	0.38	0.493	0.079		
	B1	0	1	0.74	0.443	0.050		
	B2	0	1	0.91	0.291	0.031		
	C1	0	1	0.96	0.196	0.038		
	C2	1	1	1	0	0		
	Total	0	1	0.77	0.419	0.027	185	77.40
7. Item 31 (OE_annoy / T / InAS)	A2	0	1	0.69	0.468	0.075		
	B1	0	1	0.86	0.347	0.039		
	B2	0	1	0.95	0.211	0.023		
	C1	0	1	0.96	0.196	0.038		
	C2	1	1	1	0	0		
	Total	0	1	0.88	0.322	0.021	211	88.28
8. Item 52 (OE_annoy / F / InAS)	A2	0	1	0.46	0.505	0.081		
	B1	0	1	0.81	0.393	0.044		
	B2	0	1	0.89	0.321	0.034		
	C1	0	1	0.92	0.272	0.053		
	C2	0	1	0.83	0.408	0.167		
	Total	0	1	0.79	0.405	0.026	190	79.49
9. Item 45 (OE_amuse / T / AS)	A2	0	1	0.69	0.468	0.075		
	B1	0	1	0.90	0.302	0.034		
	B2	0	1	0.95	0.211	0.023		
	C1	0	1	0.96	0.196	0.038		
	C2	0	1	0.83	0.408	0.167		
	Total	0	1	0.90	0.307	0.020	214	89.53
10. Item 36 (OE_amuse / F / AS)	A2	0	1	0.54	0.505	0.081		
	B1	0	1	0.81	0.393	0.044		
	B2	0	1	0.92	0.274	0.029		
	C1	0	1	0.96	0.196	0.038		
	C2	0	1	0.83	0.408	0.167		
	Total	0	1	0.82	0.381	0.025	197	82.42
11. Item 20 (OE_amuse / T / InAS)	A2	0	1	0.62	0.493	0.079		
	B1	0	1	0.81	0.393	0.044		
	B2	0	1	0.87	0.334	0.036		
	C1	0	1	0.92	0.272	0.053		
	C2	1	1	1	0	0		
	Total	0	1	0.82	0.385	0.025	196	82,00
12. Item 8 (OE_amuse / F / InAS)	A2	0	1	0.46	0.505	0.081		
	B1	0	1	0.66	0.476	0.053		
	B2	0	1	0.79	0.407	0.044		
	C1	0	1	0.96	0.196	0.038		
	C2	1	1	1	0	0		
	Total	0	1	0.72	0.450	0.029	172	71.96
13. Item 9 (OE_please / T / AS)	A2	0	1	0.46	0.505	0.081		
	B1	0	1	0.78	0.420	0.047		
	B2	0	1	0.90	0.306	0.033		
	C1	1	1	1	0	0		
	C2	1	1	1	0	0		
	Total	0	1	0.80	0.401	0.026	191	79.91
14. Item 51 (OE_please / F / AS)	A2	0	1	0.23	0.427	0.068		
	B1	0	1	0.63	0.487	0.054		
	B2	0	1	0.87	0.334	0.036		
	C1	1	1	1	0	0		
	C2	1	1	1	0	0		
	Total	0	1	0.70	0.458	0.030	168	70.29
	A2	0	1	0.54	0.505	0.081		

15. Item 41 (OE_please / T / InAS)	B1	0	1	0.68	0.471	0.053		
	B2	0	1	0.91	0.291	0.031		
	C1	0	1	0.81	0.402	0.079		
	C2	0	1	0.83	0.408	0.167		
	Total	0	1	0.76	0.430	0.028	181	75.73
16. Item 19 (OE_please / F / InAS)	A2	0	1	0.31	0.468	0.075		
	B1	0	1	0.56	0.499	0.056		
	B2	0	1	0.87	0.334	0.036		
	C1	0	1	0.96	0.196	0.038		
	C2	1	1	1	0	0		
	Total	0	1	0.69	0.463	0.030	165	69.03
17. Item 58 (OE_fascinate / T / AS)	A2	0	1	0.69	0.468	0.075		
	B1	0	1	0.89	0.318	0.036		
	B2	0	1	0.99	0.107	0.011		
	C1	1	1	1	0	0		
	C2	0	1	0.83	0.408	0.167		
	Total	0	1	0.90	0.296	0.019	216	90.37
18. Item 12 (OE_fascinate / F / AS)	A2	0	1	0.38	0.493	0.079		
	B1	0	1	0.75	0.436	0.049		
	B2	0	1	0.89	0.321	0.034		
	C1	0	1	0.96	0.196	0.038		
	C2	1	1	1	0	0		
	Total	0	1	0.77	0.422	0.027	184	76.98
19. Item 25 (OE_fascinate / T / InAS)	A2	0	1	0.69	0.468	0.075		
	B1	0	1	0.86	0.347	0.039		
	B2	0	1	0.94	0.234	0.025		
	C1	0	1	0.92	0.272	0.053		
	C2	1	1	1	0	0		
	Total	0	1	0.87	0.332	0.021	209	87.44
20. Item 47 (OE_fascinate / F / InAS)	A2	0	1	0.54	0.505	0.081		
	B1	0	1	0.78	0.420	0.047		
	B2	0	1	0.93	0.255	0.027		
	C1	0	1	0.96	0.196	0.038		
	C2	1	1	1	0	0		
	Total	0	1	0.82	0.385	0.025	196	82.00
21. Item 33 (SE_fear / T / AO)	A2	0	1	0.85	0.366	0.059		
	B1	0	1	0.30	0.461	0.052		
	B2	0	1	0.36	0.482	0.052		
	C1	0	1	0.54	0.508	0.100		
	C2	1	1	1	0	0		
	Total	0	1	0.46	0.499	0.032	109	45.60
22. Item 3 (SE_fear / F / AO)	A2	0	1	0.69	0.468	0.075		
	B1	0	1	0.38	0.487	0.054		
	B2	0	1	0.47	0.502	0.054		
	C1	0	1	0.62	0.496	0.097		
	C2	1	1	1	0	0		
	Total	0	1	0.51	0.501	0.032	121	50.62
23. Item 27 (SE_fear / T / InAO)	A2	0	1	0.62	0.493	0.079		
	B1	0	1	0.45	0.501	0.056		
	B2	0	1	0.45	0.500	0.054		
	C1	0	1	0.62	0.496	0.097		
	C2	1	1	1	0	0		
	Total	0	1	0.51	0.501	0.032	122	51.04
24. Item 10 (SE_fear / F / InAO)	A2	0	1	0.38	0.493	0.079		
	B1	0	1	0.29	0.455	0.051		
	B2	0	1	0.36	0.482	0.052		
	C1	0	1	0.69	0.471	0.092		
	C2	0	1	0.83	0.408	0.167		

	Total	0	1	0.39	0.489	0.032	93	38.91
25. Item 17 (SE_hate / T / AO)	A2	1	1	1	0	0		
	B1	0	1	0.95	0.219	0.025		
	B2	0	1	0.99	0.107	0.011		
	C1	1	1	1	0	0		
	C2	1	1	1	0	0		
	Total	0	1	0.98	0.143	0.009	234	97.90
26. Item 30 (SE_hate / F / AO)	A2	1	1	1	0	0		
	B1	1	1	1	0	0		
	B2	1	1	1	0	0		
	C1	1	1	1	0	0		
	C2	1	1	1	0	0		
	Total	1	1	1	0	0	239	100
27. Item 37 (SE_hate / T / InAO)	A2	1	1	1	0	0		
	B1	0	1	0.98	0.157	0.018		
	B2	0	1	0.99	0.107	0.011		
	C1	1	1	1	0	0		
	C2	1	1	1	0	0		
	Total	0	1	0.99	0.112	0.007	236	98.74
28. Item 21 (SE_hate / F / InAO)	A2	0	1	0.85	0.366	0.059		
	B1	0	1	0.94	0.244	0.027		
	B2	0	1	0.98	0.151	0.016		
	C1	1	1	1	0	0		
	C2	1	1	1	0	0		
	Total	0	1	0.95	0.227	0.015	226	94.56
29. Item 60 (SE_enjoy / T / AO)	A2	0	1	0.77	0.427	0.068		
	B1	0	1	0.65	0.480	0.054		
	B2	0	1	0.86	0.347	0.037		
	C1	0	1	0.92	0.272	0.053		
	C2	0	1	0.83	0.408	0.167		
	Total	0	1	0.78	0.413	0.027	187	78.24
30. Item 13 (SE_enjoy / F / AO)	A2	0	1	0.46	0.505	0.081		
	B1	0	1	0.58	0.497	0.056		
	B2	0	1	0.70	0.460	0.049		
	C1	0	1	0.88	0.326	0.064		
	C2	1	1	1	0	0		
	Total	0	1	0.65	0.478	0.031	155	64.85
31. Item 53 (SE_enjoy / T / InAO)	A2	0	1	0.85	0.366	0.059		
	B1	0	1	0.85	0.359	0.040		
	B2	0	1	0.94	0.234	0.025		
	C1	0	1	0.92	0.272	0.053		
	C2	1	1	1	0	0		
	Total	0	1	0.90	0.307	0.020	214	89.53
32. Item 32 (SE_enjoy / F / InAO)	A2	0	1	0.69	0.468	0.075		
	B1	0	1	0.75	0.436	0.049		
	B2	0	1	0.84	0.370	0.040		
	C1	0	1	0.92	0.272	0.053		
	C2	1	1	1	0	0		
	Total	0	1	0.80	0.401	0.026	191	79.91
33. Item 15 (SE_like / T / AO)	A2	1	1	1	0	0		
	B1	1	1	1	0	0		
	B2	1	1	1	0	0		
	C1	1	1	1	0	0		
	C2	1	1	1	0	0		
	Total	1	1	1	0	0	239	100
34. Item 35 (SE_like / F / AO)	A2	1	1	1	0	0		
	B1	0	1	0.99	0.112	0.013		
	B2	0	1	0.99	0.107	0.011		

	C1	1	1	1	0	0		
	C2	1	1	1	0	0		
	Total	0	1	0.99	0.091	0.006	237	99.16
35. Item 29 (SE_like / T / InAO)	A2	0	1	0.92	0.270	0.043		
	B1	1	1	1	0	0		
	B2	1	1	1	0	0		
	C1	0	1	0.96	0.196	0.038		
	C2	1	1	1	0	0		
	Total	0	1	0.98	0.129	0.008	235	98.32
36. Item 54 (SE_like / F / InAO)	A2	0	1	0.92	0.270	0.043		
	B1	1	1	1	0	0		
	B2	1	1	1	0	0		
	C1	0	1	0.96	0.196	0.038		
	C2	1	1	1	0	0		
	Total	0	1	0.98	0.129	0.008	235	98.32
37. Item 24 (SE_admire / T / AO)	A2	0	1	0.92	0.270	0.043		
	B1	0	1	0.79	0.412	0.046		
	B2	0	1	0.90	0.306	0.033		
	C1	0	1	0.92	0.272	0.053		
	C2	0	1	0.83	0.408	0.167		
	Total	0	1	0.87	0.341	0.022	207	86.61
38. Item 40 (SE_admire / F / AO)	A2	0	1	0.46	0.505	0.081		
	B1	0	1	0.73	0.449	0.050		
	B2	0	1	0.78	0.416	0.045		
	C1	0	1	0.88	0.326	0.064		
	C2	1	1	1	0	0		
	Total	0	1	0.73	0.446	0.029	174	72.80
39. Item 34 (SE_admire / T / InAO)	A2	0	1	0.77	0.427	0.068		
	B1	0	1	0.80	0.403	0.045		
	B2	0	1	0.93	0.255	0.027		
	C1	0	1	0.96	0.196	0.038		
	C2	1	1	1	0	0		
	Total	0	1	0.87	0.341	0.022	207	86.61
40. Item 4 (SE_admire / F / InAO)	A2	0	1	0.38	0.493	0.079		
	B1	0	1	0.65	0.480	0.054		
	B2	0	1	0.74	0.44	0.048		
	C1	0	1	0.88	0.326	0.064		
	C2	1	1	1	0	0		
	Total	0	1	0.67	0.470	0.030	161	67.36

n = 239; OE = Object Experiencer Verbs, SE = Subject Experiencer Verbs, T = True, F = False, A = Animate, IN = Inanimate, ACU = Accuracy (Number and rate (%) of the participants accurately responding)

Table 12.4. *AJT – OE and SE verbs: General descriptive statistics for acceptable & unacceptable structures across language levels*

	Language Level	*N*	Min.	Max.	*M*	*SD*	*SEM*
OE Verbs (Acceptable)	A2	39	1	7	3.923	1.840	0.294
	B1	80	1	9	5.387	2.462	0.275
	B2	87	2	9	6.471	1.951	0.209
	C1	27	5	9	7.151	1.166	0.224
	C2	6	5	9	7.500	1.516	0.619
	Total	239	1	9	5.795	2.281	0.147
OE Verbs (Unacceptable)	A2	39	0	7	2.384	2.434	0.389
	B1	80	0	10	4.825	2.685	0.300
	B2	87	0	10	7.103	2.723	0.292

	C1	27	2	10	7.958	2.102	0.404
	C2	6	6	10	9	1.673	0.683
	Total	239	0	10	5.715	3.192	0.206
SE Verbs (Acceptable)	A2	39	2	10	6.692	2.117	0.338
	B1	80	2	10	7.225	1.948	0.217
	B2	87	2	10	7.701	1.671	0.179
	C1	27	6	10	8.613	1.179	0.226
	C2	6	7	10	8.666	1.211	0.494
	Total	239	2	10	7.504	1.868	0.120
SE Verbs (Unacceptable)	A2	39	3	10	6.692	2.041	0.326
	B1	80	0	10	6.287	2.182	0.244
	B2	87	0	10	6.781	2.206	0.236
	C1	27	4	10	8.343	1.752	0.337
	C2	6	4	10	7.500	2.509	1.024
	Total	239	0	10	6.796	2.201	0.142

Table 12.5. *AJT – OE verbs: General descriptive statistics of accuracy scores for individual verbs across language levels*

OE Verb	Language Level	Min.	Max.	*M*	*SD*	*SEM*
frighten	A2	1	3	1.461	0.755	0.120
	B1	1	3	2.237	0.845	0.094
	B2	1	3	2.655	0.643	0.069
	C1	1	3	2.807	0.556	0.107
	C2	2	3	2.833	0.408	0.166
	Total	1	3	2.342	0.844	0.054
annoy	A2	0	3	1.153	0.960	0.153
	B1	0	4	1.775	1.395	0.156
	B2	0	4	2.517	1.237	0.132
	C1	1	4	2.690	0.866	0.166
	C2	2	4	2.833	0.983	0.401
	Total	0	4	2.0738	1.322	0.085
amuse	A2	0	4	1.692	1.453	0.232
	B1	0	4	2.025	1.405	0.157
	B2	0	4	2.758	1.320	0.141
	C1	0	4	3.114	1.085	0.208
	C2	2	4	3.333	1.032	0.421
	Total	0	4	2.393	1.424	0.092
please	A2	0	2	0.615	0.846	0.135
	B1	0	4	1.725	1.282	0.143
	B2	0	4	2.632	1.152	0.123
	C1	2	4	3.345	0.730	0.140
	C2	2	4	3.666	0.816	0.333
	Total	0	4	2.105	1.400	0.090
fascinate	A2	0	3	1.348	0.935	0.149
	B1	0	4	2.450	1.320	0.147
	B2	0	4	3.011	1.083	0.116
	C1	1	4	3.152	1.026	0.197
	C2	3	4	3.833	0.408	0.166
	Total	0	4	2.594	1.282	0.082

Table 12.6. *AJT – SE verbs: General descriptive statistics of accuracy scores for individual verbs across language levels*

SE Verb	Language Level	Min.	Max.	*M*	*SD*	*SEM*
fear	A2	0	4	1.846	1.424	0.228
	B1	0	4	1.050	1.123	0.125
	B2	0	4	1.092	1.281	0.137
	C1	0	4	2.343	1.299	0.250
	C2	2	4	2.833	0.983	0.401
	Total	0	4	1.386	1.342	0.086
hate	A2	0	4	3.307	1.150	0.184
	B1	1	4	3.375	0.919	0.102
	B2	2	4	3.574	0.709	0.076
	C1	2	4	3.768	0.504	0.097
	C2	2	4	3.500	0.836	0.341
	Total	0	4	3.484	0.858	0.555
enjoy	A2	0	4	2.538	1.411	0.226
	B1	0	4	3.012	1.073	0.119
	B2	0	4	3.137	1.132	0.121
	C1	2	4	3.306	0.821	0.158
	C2	1	4	2.666	1.211	0.494
	Total	0	4	3.005	1.150	0.074
like	A2	1	4	3.461	1.096	0.175
	B1	0	4	3.350	1.091	0.122
	B2	2	4	3.517	0.804	0.086
	C1	2	4	3.807	0.481	0.092
	C2	2	4	3.500	0.836	0.341
	Total	0	4	3.484	0.938	0.060
admire	A2	1	4	2.230	0.902	0.144
	B1	0	4	2.725	1.405	0.157
	B2	0	4	3.160	1.180	0.126
	C1	0	4	3.730	0.857	0.165
	C2	3	4	3.666	0.516	0.210
	Total	0	4	2.940	1.254	0.081

Table 12.7. *AJT - OE and SE verbs: General descriptive statistics for individual items across language levels*

	Language Level	Min.	Max.	*M*	*SD*	*SEM*
1. Item 1 (OE_frighten / AC / EO)	A2	1	1	1	0	0
	B1	1	1	1	0	0
	B2	1	1	1	0	0
	C1	1	1	1	0	0
	C2	1	1	1	0	0
	Total	1	1	1	0	0
2. Item 20 (OE_frighten / UnA / ES)	A2	0	2	0.46	0.756	0.121
	B1	0	2	1.24	0.846	0.095
	B2	0	2	1.66	0.644	0.069
	C1	0	2	1.80	0.577	0.115
	C2	1	2	1.83	0.408	0.167
	Total	0	2	1.34	0.844	.0546
3. Item 8 (OE_annoy / AC / EO)	A2	0	2	0.77	0.810	0.130
	B1	0	2	0.94	0.891	0.100
	B2	0	2	1	0.889	0.095
	C1	0	2	1.04	0.790	0.158
	C2	0	2	0.83	0.983	0.401

	Total	0	2	0.94	0.865	0.055
4. Item 22 (OE_annoy / UnA / ES)	A2	0	2	0.38	0.633	0.101
	B1	0	2	0.84	0.906	0.101
	B2	0	2	1.52	0.745	0.080
	C1	0	2	1.60	0.764	0.153
	C2	2	2	2	0	0
	Total	0	2	1.12	0.903	0.058
5. Item 23 (OE_amuse / AC / EO)	A2	0	2	1	0.795	0.127
	B1	0	2	1.11	0.842	0.094
	B2	0	2	1.52	0.760	0.082
	C1	0	2	1.52	0.653	0.131
	C2	1	2	1.83	0.408	0.167
	Total	0	2	1.30	0.806	0.052
6. Item 11 (OE_amuse / UnA / ES)	A2	0	2	0.69	0.832	0.133
	B1	0	2	0.91	0.874	0.098
	B2	0	2	1.24	0.902	0.097
	C1	0	2	1.56	0.712	0.142
	C2	0	2	1.50	0.837	0.342
	Total	0	2	1.08	0.894	0.057
7. Item 17 (OE_please / AC / EO)	A2	0	1	0.15	0.366	0.059
	B1	0	2	0.89	0.886	0.099
	B2	0	2	1.25	0.781	0.084
	C1	1	2	1.68	0.476	0.095
	C2	1	2	1.83	0.408	0.167
	Total	0	2	1.01	0.863	0.055
8. Item 4 (OE_please / UnA / ES)	A2	0	2	0.46	0.756	0.121
	B1	0	2	0.84	0.863	0.097
	B2	0	2	1.38	0.810	0.087
	C1	0	2	1.64	0.638	0.128
	C2	1	2	1.83	0.408	0.167
	Total	0	2	1.09	0.887	0057
9. Item 10 (OE_fascinate / AC / EO)	A2	0	2	1	0.889	0.142
	B1	0	2	1.45	0.825	0.092
	B2	0	2	1.70	0.631	0.068
	C1	0	2	1.84	0.473	0.095
	C2	2	2	2	0	0
	Total	0	2	1.52	0.770	0.049
10. Item 25 (OE_fascinate / UnA / ES)	A2	0	2	0.38	0.747	0.120
	B1	0	2	1	0.857	0.096
	B2	0	2	1.31	0.826	0.089
	C1	0	2	1.28	0.843	0.169
	C2	1	2	1.83	0.408	0.167
	Total	0	2	1.06	.0881	0.057
11. Item 16 (SE_fear / AC / ES)	A2	0	2	0.85	0.875	0.140
	B1	0	2	0.64	0.783	0.088
	B2	0	2	0.63	0.823	0.088
	C1	0	2	0.96	0.841	0.168
	C2	0	2	1	0.894	0.365
	Total	0	2	0.71	0.825	0.053
12. Item 29 (SE_fear / UnA / EO)	A2	0	2	1	0.889	0.142
	B1	0	2	0.41	0.688	0.077
	B2	0	2	0.46	0.790	0.085
	C1	0	2	1.32	0.900	0.180
	C2	1	2	1.83	0.408	0.167
	Total	0	2	0.66	0.858	0.055
13. Item 26 (SE_hate / AC / ES)	A2	0	2	1.54	0.643	0.103
	B1	0	2	1.68	0.569	0.064
	B2	0	2	1.77	0.522	0.056

	C1	1	2	1.88	0.332	0.066
	C2	2	2	2	0	0
	Total	0	2	1.71	0.542	0.035
14. Item 12 (SE_hate / UnA / EO)	A2	0	2	1.77	0.583	0.093
	B1	0	2	1.70	0.664	0.074
	B2	0	2	1.80	0.478	0.051
	C1	1	2	1.88	0.332	0.066
	C2	0	2	1.50	0.837	0.342
	Total	0	2	1.76	0.560	0.036
15. Item 6 (SE_enjoy / AC / ES)	A2	0	2	1.15	0.875	0.140
	B1	0	2	1.70	0.604	0.068
	B2	0	2	1.78	0.515	0.055
	C1	1	2	1.92	0.277	0.055
	C2	1	2	1.83	0.408	0.167
	Total	0	2	1.66	0.637	0.042
16. Item 19 (SE_enjoy / UnA / EO)	A2	0	2	1.38	0.747	0.120
	B1	0	2	1.31	0.805	0.090
	B2	0	2	1.36	0.902	0.097
	C1	0	2	1.36	0.860	0.172
	C2	0	2	0.83	0.983	0.401
	Total	0	2	1.33	0.837	0.054
17. Item 15 (SE_like / AC / ES)	A2	1	2	1.85	0.366	0.059
	B1	0	2	1.79	0.567	0.063
	B2	0	2	1.84	0.454	0.049
	C1	1	2	1.96	0.200	0.040
	C2	1	2	1.83	0.408	0.167
	Total	0	2	1.83	0.461	0.029
18. Item 30 (SE_like / UnA / EO)	A2	0	2	1.62	0.747	0.120
	B1	0	2	1.56	0.744	0.083
	B2	0	2	1.68	0.690	0.074
	C1	0	2	1.84	0.473	0.095
	C2	1	2	1.67	0.516	0.211
	Total	0	2	1.64	0.693	0.044
19. Item 28 (SE_admire / AC / ES)	A2	0	2	1.31	0.832	0.133
	B1	0	2	1.43	0.759	0.085
	B2	0	2	1.68	0.656	0.070
	C1	0	2	1.84	0.554	0.111
	C2	2	2	2	0	0
	Total	0	2	1.56	0.724	0.046
20. Item 13 (SE_admire / UnA / EO)	A2	0	2	0.92	0.839	0.134
	B1	0	2	1.30	0.892	0.100
	B2	0	2	1.48	0.819	0.088
	C1	0	2	1.88	0.440	0.088
	C2	1	2	1.67	0.516	0.211
	Total	0	2	1.38	0.845	0.054

AC = Acceptable; UnA = Unacceptable; ES = Experiencer as Subject; EO = Experiencer as Object

APPENDIX-13. Major and Minor Categories of Production for Individual OE And SE Verbs Across Five Language Levels in WPT

Table 13.1. *OE verbs: major and minor categories of production across five language levels in WPT*

OE	A2		B1		B2		C1		C2		Total	
	f	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	%
1. Accurate (Verb)	36	18.46	144	36	212	48.74	74	54.81	24	80	490	41
1.a. Transitive	27	13.84	91	22.75	101	23.22	42	31.11	5	16.67	266	22.26
Transitive – InAS	12	6.15	73	18.25	75	17.24	33	24.44	5	16.67	198	16.67
Transitive – AS	15	7.69	18	4.5	24	5.52	9	6.67	-	-	66	5.52
Transitive – InAS + AS	-	-	-	-	2	0.46	-	-	-	-	2	0.17
1.b. Verbal Passive	9	4.61	44	11	97	22.30	30	2,22	19	63.33	199	16.65
Verbal Passive - InAO	9	4.61	34	8,5	76	17.41	27	20	17	56.67	163	13.64
Verbal Passive - AO	-	-	10	2,5	20	4.60	3	2.22	2	6.67	35	2.93
Verb. Pass. – InAO + AO	-	-	-	-	1	0.23	-	-	-	-	1	0.08
1.c. Get Passive	-	-	8	2	13	2.99	1	0.74	-	-	22	1.84
1.d. Make Causative	-	-	1	0,25	1	0.23	-	-	-	-	2	0.17
1.f. Imperative + Ving	-	-	-	-	-	-	1	0.74	-	-	1	0.08
2. InAccurate (Verb)	108	55.38	143	35.75	81	18.62	4	2.96	-	-	336	28.12
2.a. Transitive with ES	84	43.08	104	26	54	12.41	3	2.22	-	-	254	21.25
2.b. Intransitive with ES	21	10.77	29	7,25	21	4.83	1	0.74	-	-	72	6.02
2.c. Passive with EO	-	-	1	0,25	1	0.23	-	-	-	-	2	0.17
2.d. Get Passive	-	-	1	0,25	-	-	-	-	-	-	1	0.08
2.e. That - CL	-	-	2	0,50	1	0.23	-	-	-	-	3	0.25
2.f. To - INF	3	1.54	6	1,5	4	0.92	-	-	-	-	13	1.09
3. Adjective	36	18.46	100	25	133	30.57	53	39.26	6	20	328	27.45
4. Noun	3	1.54	1	0.25	1	0.23	-	-	-	-	5	0.42
5. Adverb	-	-	-	-	1	0.23	-	-	-	-	1	0.08

6. No Answer	12	6.15	13	3.25	7	1.61	3	2.22	-	-	35	2.93
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
	195	100	400	100	435	100	135	100	30	100	1195	100

(P28 (B1) - "Jimmy was frightened when he saw the needle. The needle frightened him." was included in two categories (i.e., adjective and Transitive / InAS)).

Table 13.2. *SE verbs: major and minor categories of production across five language levels in WPT*

SE	A2		B1		B2		C1		C2		Total	
	f	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	%
1. Accurate (Verb)	141	72.31	273	68.25	346	79.54	114	84.44	26	86.67	900	75.31
1.a. Transitive	132	67.69	261	65.25	324	74.48	103	76.30	26	86.67	846	70.79
Transitive – InAO	105	53.85	183	45.75	244	56.09	79	58.52	17	56.67	628	52.55
Transitive – AO	21	10.77	47	11.75	51	11.72	15	11.11	6	20	140	11.71
Transitive – InAO + AO	6	3.08	31	7.75	29	6.67	9	6.67	3	10	78	6.53
1.b. Verbal Passive	3	1.54	11	2.75	17	3.91	8	5.93	-	-	39	3.26
V. Passive - AS	3	1.54	8	2.00	9	2.07	5	3.70	-	-	25	2.09
V. Passive - InAS	-	-	3	0.75	8	1.84	3	2.22	-	-	14	1.17
V. Passive – AS+InAS	-	-	-	-	-	-	-	-	-	-	-	-
1.c. Make Causative	-	-	-	-	-	-	1	0.74	-	-	1	0.08
1.d. That - CL	-	-	-	-	3	0.69	2	1.48	-	-	5	0.42
1.e. To - INF	6	3.08	1	0.25	2	0.46	-	-	-	-	9	0.75
2. InAccurate (Verb)	39	20.00	88	22	46	10.57	10	7.41	1	3.33	184	15.40
2.a. Redundant Preposition	12	6.15	42	10.5	20	4.60	7	5.18	1	3.33	82	6.86
2.b. Intransitive	15	7.69	21	5.25	12	2.76	1	0.74	-	-	49	4.10
2.c. Transitive with EO	6	3.08	17	4.25	10	2.30	2	1.48	-	-	35	2.93
2.d. Passive with ES	6	3.08	4	1.00	1	0.23	-	-	-	-	11	0.92
2.e. Adjectival Passives	-	-	2	0.50	1	0.23	-	-	-	-	3	0.25
2.f. Transitive with TS	-	-	1	0.25	-	-	-	-	-	-	1	0.08

2.g. That - CL	-	-	-	-	2	0.46	-	-	-	-	2	0.17
2.h. To - INF	-	-	1	0.25	-	-	-	-	-	-	1	0.08
3. Adjective	-	-	1	0.25	-	-	-	-	-	-	1	0.08
4. Noun	3	1.54	24	6	26	5.98	8	5.93	-	-	61	5.10
5. No Answer	9	4.61	12	3	14	3.22	1	0.74	-	-	36	3.01
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
	195	100	400	100	435	100	135	100	30	100	1195	100

Table 13.3. *Frighten (OE): major and minor categories of production across five language levels in WPT*

Frighten	A2		B1		B2		C1		C2		Total	
	f	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*
1. Accurate (Verb)	9	23.08	28	35	45	51.72	16	59.26	5	83.33	103	43.10
1.a. Transitive	6	15.38	18	22,5	24	27.59	6	22.22	-	-	54	22.59
Transitive – InAS	3	7.69	15	18.75	19	21.84	5	18.52	-	-	42	17.57
Transitive – AS	3	7.69	3	3.75	5	5.75	1	3.70	-	-	12	5.02
1.b. Verbal Passive	3	7.69	8	10	18	20.69	9	33.33	5	83.33	43	17.99
Verbal Passive – InAO	3	7.69	7	8.75	17	19.54	8	29.63	5	83.33	40	16.74
Verbal Passive – AO	-	-	1	1.25	1	1.15	1	3.70	-	-	3	1.25
1.c. Get Passive	-	-	2	2.5	3	3.45	-	-	-	-	5	2.09
1.d. Imperative +Ving	-	-	-	-	-	-	1	3.70	-	-	1	0.42
2. InAccurate (Verb)	24	61.54	27	33.75	15	17.24	1	3.70	-	-	67	28.03
2.a. Transitive with ES	21	53.84	15	18.75	6	6.90	-	-	-	-	42	17.57
2.b. Intransitive with ES	3	7.69	12	15	9	10.34	1	3.70	-	-	25	10.46
3. Adjective	3	7.69	23	28.75	27	31.03	10	37.04	1	1.67	64	26.78
4. Noun	3	7.69	-	-	-	-	-	-	-	-	3	1.25
5. No Answer	-	-	3	3.75	-	-	-	-	-	-	3	1.25
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
	39	100	80	100	87	100	27	100	6	100	239	100

(P28 (B1) - "Jimmy was frightened when he saw the needle. The needle frightened him." was included in two categories (i.e., Adjective and Transitive / InAS)).

Table 13.4. *Annoy (OE): major and minor categories of production across five language levels in WPT*

Annoy	A2		B1		B2		C1		C2		Total	
	f	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*
1. Accurate (Verb)	6	15.38	37	46.25	47	54.02	14	51.85	4	66.67	108	45.19
1.a. Transitive	6	15.38	24	30.00	24	27.59	8	29.63	2	33.33	64	26.78

Transitive – InAS	3	7.69	18	22.50	15	17.24	3	11.11	2	33.33	41	17.15
Transitive – AS	3	7.69	6	7.50	9	10.34	5	18.52	-	-	23	9.62
1.b. Verbal Passive	-	-	7	8.75	15	17.24	5	18.52	2	33.33	29	12.13
Verbal Passive - InAO	-	-	3	3.75	5	5.74	3	11.11	-	-	11	4.60
Verbal Passive - AO	-	-	4	5.00	10	11.49	2	7.41	2	33.33	18	7.53
1.c. Get Passive	-	-	5	6.25	8	9.19	1	3.70	-	-	14	5.86
1.d. Periphrastic Make Causative	-	-	1	1.25	-	-	-	-	-	-	1	0.42
2. InAccurate (Verb)	21	53.84	25	31.25	15	17.25	1	3.70	-	-	62	25.94
2.a. Transitive with ES	15	38.46	15	18.75	6	6.90	-	-	-	-	36	15.06
2.b. Intransitive with ES	6	15.38	9	11.25	8	9.19	-	-	-	-	23	10.04
2.c. Get Passive	-	-	1	1.25	-	-	-	-	-	-	1	0.42
2.d. Annoy + That-CL	-	-	-	-	1	1.15	-	-	-	-	1	0.42
2.e. Annoy + To-INF	-	-	-	-	-	-	1	3.70	-	-	1	0.42
3. Adjective	6	15.38	17	21.25	24	27.58	12	44.44	2	33.33	61	25.52
4. No Answer	6	15.38	1	1.25	1	1.15	-	-	-	-	8	3.35
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
	39	*100*	80	*100*	87	*100*	27	*100*	6	100	239	100

Table 13.5. *Amuse (OE): major and minor categories of production across five language levels in WPT*

Amuse	A2		B1		B2		C1		C2		Total	
	f	*%*	*f*	*%*	*f*	%	*f*	%	*f*	%	*f*	%
1. Accurate (Verb)	9	23.08	27	33.75	38	43.68	20	74.07	6	100	100	41.84
1.a. Transitive	9	23.08	23	28.75	22	25.29	12	44.44	2	33.33	68	28.45
Transitive – InAS	-	-	15	18.75	18	20.69	9	33.33	2	33.33	44	18.41
Transitive – AS	9	23.08	8	10	4	4.60	3	11.11	-	-	24	10.04
1.b. Verbal Passive	-	-	4	5.00	15	17.24	8	29.63	4	66.67	31	12.97
Verbal Passive - InAO	-	-	-	-	9	10.34	8	29.63	4	66.67	21	8.79
Verbal Passive - AO	-	-	4	5.00	6	6.90	-	-	-	-	10	4.18
1.c. Get Passive	-	-	-	-	1	1.15	-	-	-	-	1	0.42
2. InAccurate (Verb)	18	46.15	40	50	29	33.33	2	7.41	-	-	89	37.24
2.a. Transitive with ES	9	23.08	35	43.75	25	28.74	2	7.41	-	-	71	29.71
2.b. Intransitive with ES	9	23.08	3	3.75	2	2.30	-	-	-	-	14	5.86

2.c. Passive with EO	-	-	1	1.25	1	1.15	-	-	-	-	2	0.84
2.d. Amuse + that-CL	-	-	1	1.25	-	-	-	-	-	-	1	0.42
2.e. Amuse + to+INF	-	-	-	-	1	1.15	-	-	-	-	1	0.42
3. Adjective	6	15.38	7	8.75	15	17.24	3	11.11	-	-	31	12.97
4. Noun	-	-	1	1.25	1	1.15	-	-	-	-	2	0.84
5. No Answer	6	15.38	5	6.25	4	4.60	2	7.41	-	-	17	7.11
	n	*%*	*n*	*%*	*n*	*%*	*n*	*5*	*n*	*%*	*n*	*%*
	39	*100*	80	*100*	87	*100*	27	*100*	6	100	239	100

Table 13.6. *Please (OE): major and minor categories of production across five language levels in WPT*

Please	A2		B1		B2		C1		C2		Total	
	f	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*
1. Accurate (Verb)	-	-	11	13.75	26	29.89	9	33.33	3	50.00	49	20.50
1.a. Transitive	-	-	8	10.00	13	14.94	8	29.63	1	16.67	30	12.55
Transitive - InAS	-	-	8	10.00	7	8.05	8	29.63	1	16.67	24	10.04
Transitive - AS	-	-	-	-	4	4.60	-	-	-	-	4	1.67
Transitive - AS+InAS	-	-	-	-	2	2.30	-	-	-	-	2	0.84
1.b. Verbal Passive	-	-	3	3.75	12	13.79	1	3.70	2	33.33	18	7.53
Verbal Passive-InAO	-	-	3	3.75	8	9.19	1	3.70	2	33.33	14	5.86
Verbal Passive - AO	-	-	-	-	3	3.45	-	-	-	-	3	1.25
Verbal Passive - AO + InAO	-	-	-	-	1	1.15	-	-	-	-	1	0.42
1.c. Periphrastic Make Causative	-	-	-	-	1	1.15	-	-	-	-	1	0.42
2. InAccurate (Verb)	24	61.54	29	36.25	9	10.34	-	-	-	-	62	25.94
2.a. Transitive with ES	21	53.85	21	26.25	7	8.05	-	-	-	-	49	20.92
2.b. Intransitive with ES	-	-	2	2.50	-	-	-	-	-	-	2	0.84
2.c. Please + that-CL	-	-	1	1.25	-	-	-	-	-	-	1	0.42
2.d. Please + to+INF	3	7.69	5	6.25	2	2.30	-	-	-	-	10	3.77
3. Adjective	15	38.46	39	48.75	51	58.62	18	66.67	3	50.00	126	52.72
4. No Answer	-	-	1	1.25	1	1.15	-	-	-	-	2	0.84
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
	39	*100*	80	*100*	87	*100*	27	*100*	6	100	239	100

Table 13.7. *Fascinate (OE): major and minor categories of production across five language levels in WPT*

Fascinate	A2		B1		B2		C1		C2		Total	
	f	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	%
1. Accurate (Verb)	12	30.77	41	51.25	56	64.37	15	55.56	6	100	130	54.39
1.a. Transitive	6	15.38	18	22.50	18	20.69	8	29.63	-	-	50	20.92
Transitive - InAS	6	15.38	17	21.25	16	18.39	8	29.63	-	-	47	19.67
Transitive - AS	-	-	1	1.25	2	2.30	-	-	-	-	3	1.25
1.b. Verbal Passive	6	15.38	22	27.50	37	42.53	7	25.92	6	100	78	32.64
Verbal Passive - InAO	6	15.38	21	26.25	37	42.53	7	25.92	6	100	77	32.22
Verbal Passive - AO	-	-	1	1.25	-	-	-	-	-	-	1	0.42
1.c. Get Passive	-	-	1	1.25	1	1.15	-	-	-	-	2	0.84
2. InAccurate (Verb)	21	53.85	22	27.5	13	14.94	1	3.70	-	-	57	23.85
2.a. Transitive with ES	18	46.15	18	22.50	10	15.50	1	3.70	-	-	47	19.66
2.b. Intransitive with ES	3	7.69	3	3.75	2	2.30	-	-	-	-	8	3.35
2.c. Fascinate + to+INF	-	-	1	1.25	1	1.15	-	-	-	-	2	0.84
3. Adjective	6	15.38	14	17.5	16	18.39	10	37.04	-	-	46	19.5
4. Adverb	-	-	-	-	1	1.15	-	-	-	-	1	0.42
5. No Answer	-	-	3	3.75	1	1.15	1	3.70	-	-	5	2.09
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
	39	100	80	100	87	100	27	100	6	100	239	%

Table 13.8. *Fear (SE): major and minor categories of production across five language levels in WPT*

Fear	A2		B1		B2		C1		C2		Total	
	f	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	%
1. Accurate (Verb)	21	53.85	12	15.00	30	34.48	12	44.44	2	33.33	77	32.22
1.a. Transitive	21	53.85	12	15.00	26	29.89	10	37.04	2	33.33	71	29.71
Transitive – InAO	15	38.46	8	10	22	25.29	6	22.22	1	16.67	52	21.76
Transitive – AO	6	15.38	1	1.25	-	-	2	7.41	1	16.67	10	4.18
Transitive – InAO + AO	-	-	3	3.75	4	4.60	2	7.41	-	-	9	3.77
1.b. That-CL	-	-	-	-	3	3.45	2	7.41	-	-	5	2.09
1.c. To-INF	-	-	-	-	1	1.15	-	-	-	-	1	0.42
2. InAccurate (Verb)	15	38.46	42	52.50	29	33.33	11	40.74	1	16.67	98	41.00
2.a. Redundant Preposition	9	23.08	25	31.25	16	18.39	7	25.93	1	16.67	58	24.27
2.b. Transitive with EO	-	-	10	12.5	6	6.90	2	7.41	-	-	18	7.53
2.c. Intransitive	-	-	3		3	3.45	-	-	-	-	6	2.51

2.d. Passive with ES	3	7.69	2	2.5	1	1.15	-	-	-	-	6	2.51
2.e. Adjectival Passives	3	7.69	2	2.5	3	3.45	2	7.41	-	-	10	4.18
3. Noun	3	7.69	22	27.50	25	28.73	4	14.80	3	50	57	23.85
4. No Answer	-	-	4	5	3	3.45	-	-	-	-	7	2.93
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
	39	100	80	100	87	100	27	100	6	100	239	100

Table 13.9. *Hate (SE): major and minor categories of production across five language levels in WPT*

Hate	A2		B1		B2		C1		C2		Total	
	f	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	%
1. Accurate (Verb)	36	92.31	68	85.00	82	94.25	25	92.59	6	100	217	90.79
1.a. Transitive	36	92.31	68	85.00	82	94.25	25	92.59	6	100	217	90.79
Transitive – InAO	30	76.92	35	43.75	53	60.92	15	55.56	3	50	136	56.90
Transitive – AO	-	-	6	7.5	4	4.60	3	11.11	-	-	13	5.44
Transitive – InAO + AO	6	15.38	27	33.75	25	28.73	7	25.93	3	50	68	28.45
2. InAccurate (Verb)	3	7.69	7	8.75	2	2.30	-	-	-	-	12	5.02
2.a. Redundant Preposition	3	7.69	7	8.75	2	2.30	-	-	-	-	12	5.02
3. Noun	-	-	2	2.5	1	1.15	2	7.41	-	-	5	2.09
4. No Answer	-	-	3	3.75	2	2.30	-	-	-	-	5	2.09
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
	39	100	80	100	87	100	27	100	6	100	239	100

Table 13.10. *Enjoy (SE): major and minor categories of production across five language levels in WPT*

Enjoy	A2		B1		B2		C1		C2		Total	
	f	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	%
1. Accurate (Verb)	24	61.54	57	71.25	72	82.76	26	96.29	6	100	185	77.41
1.a. Transitive	24	61.54	57	71.25	72	82.76	26	96.29	6	100	185	77.41
Transitive – InAO	24	61.54	57	71.25	71	81.61	26	96.29	6	100	184	76.99
Transitive – AO	-	-	-	-	1	1.15	-	-	-	-	1	0.42
2. InAccurate (Verb)	15	38.46	23	28.75	12	13.79	1	3.70	-	-	51	21.34
2.a. Intransitive	15	38.46	18	22.5	9	10.34	1	3.70	-	-	43	17.99
2.b. Redundant Prep.	-	-	2	2.5	1	1.15	-	-	-	-	3	1.26
2.c. Passive with ES	-	-	1	1.25	-	-	-	-	-	-	1	0.42

2.d. Adjectival Passive	-	-	1	1.25	-	-	-	-	-	-	1	0.42
2.e. To-INF	-	-	-	-	2	2.30	-	-	-	-	2	0.84
2.f. That-CL	-	-	1	1.2	-	-	-	-	-	-	1	0.42
3. No Answer	-	-	-	-	3	3.45	-	-	-	-	3	1.26
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
	39	100	80	100	87	100	27	100	6	100	239	100

Table 13.11. *Like (SE): major and minor categories of production across five language levels in WPT*

Like	A2		B1		B2		C1		C2		Total	
	f	%	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%
1. Accurate (Verb)	36	92.31	75	93.75	82	94.25	26	96.30	6	100	225	94.14
1.a. Transitive – InAO	30	76.92	72	90.00	77	88.50	23	85.18	6	100	208	87.03
1.b. Verbal Pass - InAS	-	-	2	2.50	4	4.60	3	11.11	-	-	9	3.77
1.c. To - INF	6	15.38	1	125	1	1.15	-	-	-	-	8	3.35
2. InAccurate (Verb)	-	-	1	1.25	-	-	-	-	-	-	1	0.42
2.a. Transitive with TS	-	-	1	1.25	-	-	-	-	-	-	1	0.42
4. Adjective	-	-	1	1.25	-	-	-	-	-	-	1	0.42
5. No Answer	3	7.69	3	3.75	5	5.75	1	3.70	-	-	12	5.02
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
	39	100	80	100	87	100	27	100	6	100	239	100

Table 13.12. *Admire (SE): major and minor categories of production across five language levels in WPT*

Admire	A2		B1		B2		C1		C2		Total	
	f	%	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%
1. Accurate (Verb)	24	61.54	61	76.25	80	91.95	25	92.59	6	100	196	82.00
1.a. Transitive	21	53.85	52	65	67	77.01	19	70.37	6	100	165	69.04
Trans. – InAO	6	15.38	11	13.75	21	24.14	9	33.33	1	16.67	48	20.08
Transitive – AO	15	38.46	40	50	46	52.87	10	37.04	5	83.33	116	48.54
Trans. – InAO + AO	-	-	1	1.25	-	-	-	-	-	-	1	0.42
1.b. Verbal Passive	3	7.69	9	11.25	13	14.94	5	18.52	-	-	30	12.57
Verb. Pass. - AS	3	7.69	8	10	9	10.34	5	18.52	-	-	25	10.46
Verb. Pass. – InAS	-	-	1	1.25	4	4.60	-	-	-	-	5	2.09
1.c. Make Causative	-	-	-	-	-	-	1	3.70	-	-	1	0.42
2. InAccurate (Verb)	9	23.08	17	21.25	6	6.90	-	-	-	-	32	13.39
2.a. Redundant Prep.	-	-	8	10	1	1.15	-	-	-	-	9	3.77

2.b. Transitive with EO	6	15.38	7	8.75	4	4.60	-	-	-	-	17	7.11
2.c. Passive with ES	3	7.69	1	1.25	-	-	-	-	-	-	4	1.67
2.d. Adjectival Passives	-	-	1	1.25	1	1.15	-	-	-	-	2	0.84
3. Noun	-	-	-	-	-	-	2	7.41	-	-	2	0.84
4. No Answer	6	15.38	2	2.5	1	1.15	-	-	-	-	9	3.77
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
	39	100	80	100	87	100	27	100	6	100	239	100

CURRICULUM VITEA

Name Surname : Seray Tanyer

Foreign Language : English

Place / Year of Birth : Edirne / 1989

E-Mail : seraytanyer@gmail.com

Education

M.A. : 2014, Anadolu University, Graduate School of Educational Sciences, Program in English Language Teaching, Eskişehir

M.A. Dissertation Title : The relationship between preservice English teachers' domain specific beliefs about writing and writing performance: A sample study – Advisor: Assist. Prof. Dr. Gonca Subaşı

B.A. : 2011, Hacettepe University, Faculty of Education, Department of Foreign Language Education, Ankara

H.S. : 2007, Kepirtepe Anatolian Teacher Training High School, Lüleburgaz/Kırklareli

Work Experience

2012 – 2022 : Research Assistant, Anadolu University, Faculty of Education, Program in English Language Teaching, Eskişehir.

2011 – 2012 : Sinop University, Faculty of Education, Program in English Language Teaching, Sinop

Publication

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2. Tanyer, S., & Arslantaş, H. (2019). Acculturation attitudes and strategies of Turkish immigrants in the United Kingdom: Focus on real and ideal situation difference. *GlobELT 2019: 5th International Conference on Teaching and Learning English as an Additional Language. Kyrenia, Northern Cyprus.* (Abstract)
3. Tanyer, S. (2017). A corpus-based investigation on reflective and observation reports of preservice English teachers. *CUELT 2017 - 3rd Cukurova International ELT*

Teachers Conference - "Reshaping Teaching and Learning English for the 21st Century", 120. (Abstract)

4. Tanyer, S. (2015). The role of writing and reading self-efficacy in first year preservice EFL teachers' writing performance. *1st GlobELT Conference on Teaching and Learning English as an Additional Language.* (Full text)
5. Susoy, Z., & Tanyer, S. (2013). A closer look at the foreign language writing anxiety of Turkish EFL pre-service teachers. *International Academic Conference on Education, Teaching and E-learning.* (Full text)
6. Öztürk, Y., & Tanyer, S. (2012). A cross sectional evaluation on the relationship between Turkish EFL learners' vocabulary size and vocabulary learning strategy use. *The 15th Warwick International Postgraduate Conference in Applied Linguistics,* 37-45. Doi: doi:10.4304/jltr.5.1.37-45 (Abstract)

Membership

2013 – 2014 – English Language Teachers' Association in Turkey (INGED), Ankara
2012 – 2013 - American Association of Applied Linguistics (AAAL),

Teaching Experience

2020 – 2021 Spring Semester	:	İNÖ406 – Practice Teaching
		İNÖ410 – Macro Teaching
2020 – 2021 Fall Semester	:	ÖMB407 – School Experience
		İNÖ409 – Micro Teaching
2019 – 2020 Spring Semester	:	KÜL199 – Cultural Activities
		İNÖ406 – Practice Teaching
		İNÖ410 – Macro Teaching
2019 – 2020 Fall Semester	:	ÖMB407 – School Experience
		İNÖ409 – Micro Teaching
2018 – 2019 Spring Semester	:	ÖMB406 – Practice Teaching
		İNÖ410 – Macro Teaching
2017 – 2018 Spring Semester	:	PDF710 – Teaching Practice