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교육학석사 학위논문

On the Instruction Effects of Argument
Structure Constructions and Basic Verbs on
Korean Middle School Learners of English

한국 중학생 영어학습자의 논항구조구문과
기본동사에 관한 교수효과 연구

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신 규 호

On the Instruction Effects of Argument
Structure Constructions and Basic Verbs on
Korean Middle School Learners of English

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On the Instruction Effects of Argument
Structure Constructions and Basic Verbs on
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ABSTRACT

This paper aims to verify the frequency-based instruction effects of argument structure constructions and basic verbs on Korean middle school learners of English. The experiment was conducted on the basis of input frequency and the developmental intercorrelation between argument structure constructions and basic verbs, which are regarded as an actual (psycho-)linguistic means at the starting point of language acquisition. After six weeks of instruction, learners' improvement in comprehension and production was generally detected. Interestingly, the two types of writing data showed learners' biases and fluctuations in using the target frames, which revealed relative accessibility among the representations. The phenomena were then reanalysed in terms of sentence patterns and verbs, and the observations confirmed the learners' endeavour to access the target language system and to fully utilise their (non)linguistic knowledge to meet communicative intentions. In conclusion, learners' performance in relation to item-based piecemeal learning of the target language system with activating cognitive mechanisms not only substantiates the core aspects of usage-based language acquisition, but it also suggests the potential for construction-verb sets to be powerful initiators at the beginning stage of language learning.

Key Words: Argument Structure Constructions, Basic Verbs, Input Frequency,
Construction Grammar, Cognitive Linguistics

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CHAPTER 1.

INTRODUCTION

As opposed to the nativism, usage-based linguistic theories view languages as dynamic systems that gradually emerge from the learners' stored experiences with linguistic and nonlinguistic input (Bybee & McClelland, 2005). Language acquisition, in this regard, is based on domain-general cognitive mechanisms such as generalisation, abstraction, categorisation, and other analogical processes (Dabrowska, 2004; Goldberg, 2003, 2006; Goldberg, Casenhiser, & Sethuraman, 2004; Goldberg, Casenhiser, & White, 2007; Tomasello, 2000a, 2000b, 2003). Especially from the perspective of the constructionists' approach, it is assumed as a null hypothesis that natural languages can be learnt without any innate or specific linguistic principles (Boyd & Goldberg, 2009). As Ellis (2002) asserts, the knowledge underlying fluent language use is characterised as a massive collection of memories of previously experienced utterances.

Usage-based accounts of language acquisition also guide us to conduct detailed investigations into the nature of input. Indeed, a great deal of language acquisition research has already described the strength of input, or at least, the idea that input is just as powerful as output (Asher, 1972, 1977; Ellis, 1999; Isik, 2000; Krashen, 1981, 1982, 1994, 2003; Nicola, 1990; Nicola & Krashen, 1997; VanPatten & Cadierno, 1993a, 1993b; VanPatten & Sanz, 1995; Winitz, 1996; Yang, 2004). It goes without saying that the importance of input is much bigger in L2 or EFL situations. Ellis (1994) argues that "L2 acquisition can only take place when the learner has access to

input in the L2” (p. 26). An EFL environment such as Korea is the place where learners' most significant exposure (i.e., input) to the target language is limited (Ellis & Collins, 2009; Kim, 2005). Consequently, as Kim (2005) confirmed, verb usages in adult English learners' writings show similarity to those presented in the textbooks which they had studied throughout the years.

1.1. Purpose of This Study

This study aims to investigate the frequency-based instruction effects of argument structure constructions and basic verbs on Korean middle school learners' language acquisition. Prior studies on argument structure constructions and basic verbs (e.g., Goldberg et al., 2004; Sethuraman, 2002) commonly report the close relationship between argument structure constructions and basic verbs and further diagnose the possibility of utilising them as effective language learning tools in the primary level (Shin, 2009, 2011). There also are several trials to demonstrate the pedagogical implications on the instruction of selective argument structure constructions (Kim, 2012; Sung, 2012). However, little is known of the actual implementation of a group of argument structure constructions and basic verbs into Korean secondary school levels. Thus, central to this paper is to observe learners' developmental patterns throughout the instruction period, focusing on input frequency manipulation of argument structure constructions and basic verbs within the framework of the usage-based language acquisition.

1.2. Research Questions

To investigate the instructional effects of English argument structure constructions and basic verbs on the secondary school level English learners, this study poses two research questions as follows:

1. Do learners demonstrate developmental patterns in the comprehension and production of argument structure constructions and basic verbs?
2. Do learners show different degrees of accessibility to target argument structure constructions, reflecting their cognitive mechanism activation?

This paper will generally contribute to expanding pedagogical understanding of learners' mental grammar from the perspective of item-based piecemeal learning, and to shedding light on practical applications of argument structure constructions and basic verbs into actual learning-teaching material or curricula development. Specifically, this study will give us convincing answers to how learners' knowledge of argument structure constructions changes after the instruction. This paper will also present an opportunity to confirm learners' active utilisation of cognitive mechanisms during their language learning processes in order to express

communicative intentions¹. Finally, by investigating the role and effect of argument structure constructions and basic verbs in language acquisition, we will be able to diagnose the utilisability of argument structure constructions and basic verbs in language teaching in EFL situations.

1.3. Organisation of the Thesis

Chapter Two provides a detailed summary of background knowledge, including the notion of input frequency, the concept of argument structure constructions and basic verbs, and their status in language acquisition. Next, Chapter Three overviews the experiment such as participant information, stimuli, organisation of the classes, data collection and analyses. Chapter Four then presents results of data analyses exploring the two research questions, and explicates pedagogical implications on construction-verb set instructions focusing on the participants' developmental aspects and their utilisation of cognitive mechanisms. Finally, the remainder of this study will recapitulate the contents of the experiment and the major findings, and offer limitations of this study and suggestions for the further research.

¹ The term 'communicative intention' was adopted from Tomasello (2000a), and it is loosely defined as 'an intention within which another person share attention and which is to be expressed to some third entity' (Tomasello, 2000a).

CHAPTER 2

LITERATURE REVIEW

This chapter offers a general overview of the present study. In particular, Section One deals with input frequency effects in cognitive linguistics, which will be a fundamental background of the study. Section Two then introduces the notion of constructions, and specifies the nature of argument structure constructions. Lastly, Section Three explains the notion of basic verbs as a powerful aid to acquire the target structures.

2.1. Input Frequency Effects in Cognitive Linguistics

2.1.1. Brief Introduction to Cognitive Linguistics

Cognitive linguistics is said to be a relatively new area of the (psycho-)linguistic field. A language, one of the forms of knowledge, is defined as a structured and conventionalised inventory of linguistic repertoire from people's perceptual experiences (Bybee, 2010; Croft & Cruse, 2004; Dabrowska, 2004; Langacker, 2008; Robinson & Ellis, 2008a). Cognitive linguistics addresses the question of the existence of autonomous acquisition devices for language learning and processing, and conceptualises language learning as an involvement of the full scope of

cognition; thus, language acquisition processes become essentially input-driven and fully sensitive to the actual experience with the language in use, and are involved in other types of knowledge irrespective of the language itself (Bybee, 2010; Gibbs, 1996; Langacker, 2008; Littlemore, 2009; Robinson & Ellis, 2008a). In this framework, grammar is explained as a fundamentally abstract, schematic, and symbolic, yet gradually evolving system due to the cognitive organisation of learners' accumulated experiences (Dabrowska, 2004; Langacker, 2010; Robinson & Ellis, 2008a).

Within the area of cognitive linguistics, the impact of input is crucial in language learning and teaching. Words themselves only function as a limited and imperfect means of expression. Rather, there exist symbolic units of language representations which characterise form-meaning-function mappings, conventionalised in the speech communities: constructions² (Bybee, 2010; Croft & Cruse, 2004; Dabrowska, 2004; Goldberg & Casenhiser, 2008; Robinson & Ellis, 2008a, 2008b). The ultimate goal of language acquisition is then to enlarge the inventory of constructions through the process of gradual abstractions of specific instances of constructions, eventually obtaining automaticity of construction uses with broad generalisability to varied social interactions (Robinson & Ellis, 2008a). Therefore, it is mandatory that learners are exposed to a range of usage events and actual construction usages repetitively and sufficiently in order to proceed language acquisition processes.

² The notion of constructions and their status in language acquisition will be fully dealt with in Section 2.2

2.1.2. Effects of Input Frequency

Not every type of input, however, seems to have the same influence on the process of language acquisition. According to Ellis (2002), frequency of input intimately tunes language processing in that humans are born with such an incisive sense of frequencies that they have quite precise knowledge of frequency distributions and their central tendencies. Input frequency is generally said to play an important role in language processing and acquisition (Boyd & Goldberg, 2009; Ellis, 2002; Ellis & Collins, 2009; Ellis & Ferreira-junior, 2009; Langacker, 2008; Larsen-Freeman, 2002; McDonough & Kim, 2009; Tarone, 2002; Year & Gordon, 2009). In particular, it is reported that input frequency aids learners in acquiring lexical frames and extending those frames to generalised abstract representations (Bybee, 1995, 2008; Childers & Tomasello, 2001; Ellis, 2002, 2005; Robinson & Ellis, 2008b).

There exist two major categories of input frequency. One is type frequency, a word distribution permitting no overlap among vocabularies in a text³. Plenty of research proves the association between type frequency and ease of language acquisition. To illustrate, McDonough and Kim (2009) found a reliable facilitatory effect of high type frequency on the production of questions. Boyd and Goldberg

³ For example, a sentence 'I told Bob that I met a girl that Harry met on that night in front of the house of Bob.' counts fifteen word occurrences in the perspective of type frequency.

(2009) also observed that increasing type frequency leads learners to recognise that existing constructional schemas can be generalised, resulting in the development of progressively more abstract configurations and producing utterances which had not been present in the input.

The other category is token frequency, that is, the overall distribution of words in a text.⁴ So-called 'Zipfian distribution' (Zipf, 1935, 1949)⁵ in natural languages functions as learners' optimisation in language acquisition by providing one very high frequent exemplar that is also prototypical in meaning (Casenhiser & Goldberg, 2005; Elio & Anderson, 1981, 1984; Goldberg, 2006; Goldberg et al., 2004; Goldberg et al., 2007; Shirai & Andersen, 1995; Wulff, Ellis, Rømer, Bardovi-Harlig, & LeBlanc, 2009). In this respect, the learners can easily apprehend those meanings, and the typical form is sufficient for basic communication of constructional meaning (Goldberg, 2006).

Overall, input frequency plays a significant role in learners' acquisition, abstraction, and generalisation of lexical representations (Bybee, 1995, 2008; Childers & Tomasello, 2001; Croft & Cruse, 2004; Ellis, 2002, 2005; Robinson & Ellis, 2008a, 2008b). There are unignorable differences, though, between the effect of type and token frequency. It is generally assumed that, especially in the initial

⁴ For instance, the same sentence 'I told Bob that I met a girl that Harry met on that night in front of the house of Bob.' counts twenty one occurrences in terms of token frequency including two times of 'I', 'met', 'Harry' and 'of' respectively, and three times of 'that'.

⁵ Zipf's law states that, given some corpus of natural language utterances, the frequency of any word is inversely proportional to its rank in the frequency table (Zipf, 1935). According to Ellis and Ferreira-junior (2009), "it arose from the Principle of Least Effort, whereby natural languages are constrained to minimize speaker effort (optimized by having fewer words to be learned and accessed in speech production) and, simultaneously, the cost of ambiguity of interpretation in speech comprehension (optimized by having many words, one for each different meaning minimizes ambiguity)". (p. 372)

stage, low-type yet high-token frequency helps learners perceive lexical frames and spontaneously produce the configurations (Casenhiser & Goldberg, 2005; Ellis & Collins, 2009; Goldberg et al., 2004). After the initial stages, high type frequency tends to give learners chances to abstract the patterns, providing information about the number of discrete items which can fill the slots in the representations (Collins, Trofimovich, White, Cardoso, & Horst, 2009; McDonough & Kim, 2009).

2.2. Construction Grammar⁶ and English Argument Structure Constructions

2.2.1. Notion of Argument Structure Constructions

Ellis and Collins (2009) maintains that language learning tends to be heavily dependent on the structure of input, and that reliability of form-function mapping is an impetus to all associative learning. This idea strongly supports the concept of constructions. According to Goldberg (1995, p. 1), constructions refer to “form-meaning correspondences that exist independently of particular verbs”. The important characteristics of constructions (Bencini & Goldberg, 2000; Boyd & Goldberg, 2009; Bybee, 2010; Croft & Cruse, 2004; Ellis, 2002; Ellis & Ferreira-

⁶ Within the usage-based framework, there are at least three sub-approaches in terms of Construction Grammar (e.g., Cognitive Grammar (i.e., CG), Radical Construction Grammar (i.e., RCxG), and Cognitive Construction Grammar (i.e., CCxG)) (Croft & Cruse, 2004; Goldberg, 2006). This paper will mainly follow the discussions from CCxG by Adele E. Goldberg.

junior, 2009; Goldberg, 1995, 1999, 2003, 2006; Goldberg et al., 2004; Schulze & Penner, 2008; Sethuraman, 2002; Tomasello, 2000b, 2003) are summarised as follows:

- Constructions have their own meanings, independent of the verbs within those frames;
- Constructions are contained in language users' lexicon and form structured inventories of speaker's (grammatical) knowledge;
- Constructions are symbolic in that they blend morphological, syntactic, and lexical form with semantic, pragmatic, and discourse functions associated with them.

Among constructions, there is a host of form-meaning-function mixtures which “provide the means of expressing simple propositions in a language” (Goldberg et al., 2007, p. 74). It is referred to as Argument Structure Constructions (hereafter ASCs, see Table 2.1⁷). Sethuraman (2002) points out that the meanings related to argument structures are connected directly to ASCs, not solely to individual verbs. Along with the discussions above, Du Bois (2003) elaborates the functions of ASCs in two ways: serving systematic frameworks to co-establish grammatical and semantic relations between elements and to combine an event with the participants engaged in that event. The concept of ASCs is widely accepted in the field of

⁷ The terms, the examples, the abstract forms, and the meanings of each type of ASCs were borrowed and adapted from Goldberg (1995).

cognitive linguistics as a highly explanatory theoretical construct (Eddington & Francisco, in press). Particularly in the field of language acquisition, it is alleged that ASCs play an important role as a starting point and facilitator in that their central senses are linked to basic experiences of human beings (Goldberg, 1995, 2006; Shin, 2009, 2010, 2012).

Table 2.1 English Argument Structure Constructions

Type	Example	Abstract form	Meaning
Intransitive	The sun disappeared.	Subject Verb	X acts
Transitive	Ryu loves him.	Subject Verb Object	X acts Y
Ditransitive	He faxed him a letter.	Subject Verb	X causes Y
		Object1 Object2	to receive Z
Caused-motion	She sneezed the foam off the cappuccino.	Subject Verb Object	X causes Y
		PrepositionalPhrase	to move Z
Resultative	She talked herself blue in the face.	Subject Verb Object	X causes Y
		ResultPhrase	to become Z
Intransitive-motion	The motorcycle roared down the street.	Subject Verb	X moves Y
		PrepositionalPhrase	
Intransitive-resultative	His face turned red.	Subject Verb	X becomes Y
		ResultPhrase	

ASCs can be utilised as a tool to aid learners in gaining access to language systems. During the process of language acquisition and language processing, the

frames provide space for organising clusters of semantic and functional properties as observable patterns associated with acquired morphosyntactic features (Clancy, 2003; Du Bois, Kumpf, & Ashby, 2003). With ASCs utilisation, as Littlemore (2009) asserts, learners will draw the full resources of knowledge frames out of their mental grammar and cognition rather than depend solely on narrowly-defined linguistic knowledge itself.

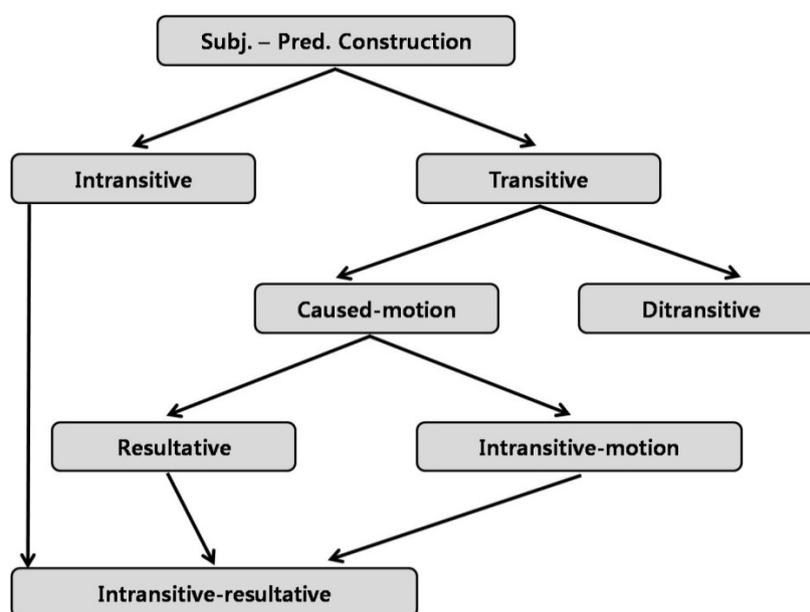
2.2.2. Internal Relationship among ASCs

Goldberg (1995) illustrates the internal relationship among English ASCs (see Figure 2.1⁸). The figure demonstrates that there is a hierarchy between ASCs. For example, intransitive and transitive constructions mark the upper layer of the hierarchy, which means that they are simpler in terms of forms and meanings. In particular, simple transitive constructions are thought to be the most productive representations of child language acquisition because of their fundamental relationship to human behaviour (i.e., transitivity) (Akhtar & Tomasello, 1997; Dodson & Tomasello, 1998; Olguin & Tomasello, 1993; Tomasello & Brooks, 1999). Resultative constructions, on the other hand, are regarded as a derivation of caused-motion constructions: the surface structure of resultative constructions is similar to that of caused-motion constructions, and the meaning of resultative constructions emerges from the transition (or movement) of abstract concept (i.e.,

⁸ The diagram was adapted from Goldberg (1995).

result) from X to Y. Information such as word order facts, case-marking properties, links between syntactic-semantic relations, and other linguistic features can indeed be inherited from the high node constructions into dominated ones (Broccias, 2008; Croft & Cruse, 2004; Goldberg, 1995). Interestingly, Sethuraman (2002) found a relationship between some of the ASCs in her study on child language acquisition, emphasising the developmental hierarchy and gradual progression in learning constructions.

Figure 2.1 Internal Networking between English ASCs



Constructions are related to one another logically and meaningfully (Goldberg, 1995, 2006; Langacker, 2008). Hence, showing how the linguistic realities are interrelated through the general network will encourage learners to use their existing constructional knowledge to further acquire more complex patterns that are new to

them (Broccias, 2008). As Littlemore (2009) points out, it looks highly plausible that ASCs have to be instructed from the core, easy one(s) to more difficult or peripheral ones. ASCs are systematically organised and have clear generative motivations towards each other. In this regard, a systematic consideration of ASCs and the relations between them surely helps learners improve understanding and use of the target language without arbitrariness and aery lists of unrelated phrases (Littlemore, 2009).

2.3. English Basic Verbs

2.3.1. Status of Verbs in Language Acquisition

Studies on learners' language development, especially on the constructionists' side, commonly report that the initial state of language acquisition is described as item-based piecemeal learning of concrete exemplars—mainly verbs; as the learners' cognitive ability grows and their learning experiences are accumulated, they generalise the individual words through their cognitive mechanisms to derive organised and abstract categories (Bybee, 2010; Ellis & Ferreira-junior, 2009; Goldberg, 2006; Goldberg et al., 2004; McDonough & Kim, 2009; Tomasello, 2000a, 2000b, 2003; Tomasello & Brooks, 1999).

During the developmental processes, verbs tend to play a central role in construction learning. Many researchers consistently argue the close relationship

between verbs and constructions (Matthewsa, Lieven, Theakston, & Tomasello, 2005; Ellis & Ferreira-junior, 2009). Goldberg (1995) also claims that verb-centered constructions are salient in the input process because they are related to certain fundamental perceptual primitives. Moreover, construction growth is likely to be accompanied by vocabulary growth, and it seems that the number of construction types that the learner produced grows as the learner's knowledge of verbs increases (Sethuraman, 2002).

Not all types of verbs, however, appear to equally contribute to triggering learners' cognitive ability and drive learners to construction learning. Tomasello (1992) reveals that children initially use verbs conservatively (i.e., the way they have heard the verbs previously); children pair arguments and syntactic markings on a verb-by-verb basis, and patterns and morphological markers acquired from one verb are not immediately generalised towards others (a.k.a. *verb island hypothesis*).

Similarly, Ninio's (1999) research on first verbs used in [Verb Object] and [Subject Verb Object] patterns explains that children often use path-breaking verbs such as *want, do, make, put, take, give, and get* for a long time before using other verbs in the two configurations. She additionally points out that children not only start to use verbs in diverse syntactic patterns, but they also begin to come to know more general or abstract knowledge about the verb class, the different complements that the verbs take, and the word order involved in the representations (Ninio, 1999).

The last and most important observation comes from the corpus analyses of Goldberg et al. (2004). They attest to the idea that certain light verbs are central in the acquisition of argument structure, demonstrating a strong tendency for one

general-purpose verb to occur very frequently compared to other verbs used (e.g., *do* in transitive constructions, *give* in ditransitive constructions, *put* in caused-motion constructions, and *go* in intransitive-motion constructions). The skewedness shows a striking resemblance in meaning between the ASCs and the verbs, making the association between construction meaning and form much easier to comprehend and produce (Goldberg et al., 2004; Year & Gordon, 2009).

2.3.2. Concept of Basic Verbs⁹

As demonstrated above, several types of verbs dominantly appear in most of language acquisition processes, and they are classified as Basic Verbs (hereafter BVs) (Viberg, 2002). A great amount of literature (Altenberg & Granger, 2001; Bowerman, 1973; Goldberg et al., 2004; Horton, 1996; Naigles & Hoff-Ginsberg, 1998; Ninio, 1999; Sethuraman, 2002; Shin, 2009, 2011; Viberg, 1996, 2002) characterises the general features of BVs as follows:

- BVs are defined as the most frequent verbs in a language, expressing basic meanings and dominating different semantic fields
- BVs show variable usages across sentence patterns in a language

⁹ Some terminology inconsistencies exist to refer to ‘Basic Verbs’ (e.g., *light verbs*, *common verbs*, *high frequency verbs*, *general-purpose verbs*, etc.) over a huge amount of literature regarding the verbs. It might be hard to say that the terms express the very exactly same concept, but the verbs generally show almost same linguistic and non-linguistic features. Throughout this study, the term ‘Basic Verbs’ will be used for the coherence of the discussion.

- BVs are characterised by a higher degree of polysemy than other verbs, caused by the common, ‘light’, or delexicalised meanings in themselves and in relation to other elements
- Frequent use of BVs is mainly due to an influence of parental input
- BVs tend to be somewhat problematic for foreign language learners

The so-called ‘semantically empty’ (Horton, 1996) verbs are believed to serve as a linking device between the learner’s comprehension and production. For example, Viberg (2002) asserts that BVs tend to replace more specific ones at the beginning stage of language acquisition due to the advantages of using those tools (i.e. covering most of ASCs and lessening the processing load), becoming a good strategy for beginners to communicate with others. Furthermore, in addition to being path-breaking for learning specific constructions, BVs also path-break for the use of verbs in multiple constructions because learning how to combine in general speeds the way for learning how to combine with other verbs regardless of the pattern (Ninio, 1999; Sethuraman, 2002).

Learners' frequent use of BVs and their facilitative role in acquiring ASCs throw some light on the utilisability of language acquisition as an effectively-driving linguistic material. As Langacker (2008) points out, focusing on the most frequent and basic verbs as a prototype in the beginning of each learning-teaching incident would be one of the efficient pedagogical strategies. In line with the discussions above, the experiment was designed to provide the participants with selected BVs according to the target ASCs under manipulation on input frequency. The

frequency-based manipulation on BVs and ASCs will be mostly likely to activate learners' cognitive mechanism on target language acquisition.

CHAPTER 3

METHODOLOGY

This chapter details how the experiment was conducted, including information on participants, stimuli, procedures, and data collection and analyses of the experiment.

3.1. Participants Information

Seventeen participants, all in their first year of middle school, originally participated in this study. After six weeks of instruction, however, two subjects were excluded because they were absent from some of the classes and finally dropped out of the program. No one had learnt or even heard of linguistic terms such as ASCs or BVs. The participants' initial English proficiency levels¹⁰ were measured by two different pre-tests¹¹. The information on the participants is summarised in Table 3.1.

¹⁰ As for their primary English proficiency, their final English scores in the first semester were given to the researcher, but the information was not importantly considered due to the researcher's judgment that the learners' developmental aspects and their motivation/participation throughout each sessions were of greater importance.

¹¹ The details of the tests will be dealt with in Section 3.4.

Table 3.1 Information on the Participants

Code ¹²	1 st Semester Final Test Score	Motivation on the Classes ¹³	Absence from the Classes
A	87.91	Highly Motivated	0
B	92.86	Unmotivated	2
C	96.11	Highly Motivated	1
D	93.05	Somewhat Unmotivated	1
E	86.2	Unmotivated	1
F	93.06	Somewhat Unmotivated	1
G	86.96	Somewhat Motivated	0
H	90.31	Somewhat Motivated	0
I	97.9	Highly Motivated	0
J	85.09	Somewhat Motivated	0
K	86.87	Somewhat Unmotivated	0
L	91.75	Somewhat Motivated	4
M	92.17	Somewhat Motivated	0
N	82.51	Highly Motivated	0
O	42.04	Somewhat Motivated	0

¹² The participants were randomly coded as alphabets for the purpose of anonymity.

¹³ Learners' motivation throughout the classes was subjectively observed by the researcher using four-scale rationale (e.g., *Highly Motivated*, *Somewhat Motivated*, *Somewhat Unmotivated*, and *Unmotivated*).

3.2. ASCs and BVs Selection

Table 3.2 illustrates the ASCs and BVs used in this experiment. First, six types of ASCs were chosen (e.g., *transitive*, *ditransitive*, *caused-motion*, *resultative*, *intransitive-motion*, and *intransitive-resultative constructions*). Each type of ASCs was allocated throughout two instructional sessions. In order to facilitate ASCs learning, six representative BVs were also selected (e.g., *do*, *give*, *put*, *make*, *go*, and *become*) for the ASCs based on previous corpus research and findings in Biber, Conrad, and Reppen (1999), Goldberg et al. (2004), Naigles and Hoff-Ginsberg (1998), and Viberg (2002).¹⁴ Other verbs (see the verbs in round brackets in Table 3.2) were additionally included in the stimuli to facilitate the learners' awareness of the characteristics of each representation and to expand their linguistic knowledge naturally. The classifications of (1) and (2) in Table 3.2 reflect the two different types of input frequency: the first and the second sessions in every ASC type included high token frequency of the target BVs and high type frequency of other verbs, respectively.¹⁵

¹⁴ The researcher intentionally chose a group of verbs in Table 3.2 based on the previous frequency-related corpus studies in order to make the best use of the advantages of BVs (see Section 2.3.2.). Therefore, the verb list in this experiment is very different from that in the National Curricula. According to prior studies regarding verb input frequency in elementary school textbooks (e.g., Shin, 2009, 2011), the proportion of BVs is far less than that of the *be*-verb, and various types of action verbs are presented to help primary-level English learners utilise language knowledge from their textbooks (see Shin 2009, 2011 for more explanation). This point was the main motivation why the frequency-based verb list was developed and provided to the learners as essential input material for this study.

¹⁵ This will be fully explained in Section 3.3.2.

Table 3.2 ASCs and BVs Selection

Type	Verb	Type	Verb
Transitive (1)	<i>do</i> (make, take, say, like)	Intransitive- motion (1)	<i>go</i> (come, get, fall, move)
Transitive (2)	<i>do</i> (get, have, hit, kick / open, close, push, roll / want, see, think, know)	Intransitive- motion (2)	<i>go</i> (walk, lie, stand, look, live, sit)
Ditransitive (1)	<i>give</i> (get, tell, show, bring)	Resultative (1)	<i>make</i> (have, let, get, keep)
Ditransitive (2)	<i>give</i> (bring, lend, hand, buy / fax, bake, cook, blow)	Resultative (2)	<i>make</i> (drive, call, wipe, talk, hammer, kick)
Caused- motion (1)	<i>put</i> (get, take, leave, pick)	Intransitive- resultative (1)	<i>become</i> (get, turn, grow, look)
Caused- motion (2)	<i>put</i> (kick, hit, push, wash, throw, fly)	Intransitive- resultative (2)	<i>become</i> (fall, go, keep, freeze)

3.3. Procedure of the Experiment

This section provides the information on the overall organisation of the experiment and the general procedure of individual instructions.

3.3.1. Overall Organisation of the Class

The class was held every Monday and Wednesday from 13 September to 2 December, 2010. Table 3.3 details the overall outline of the class. The sequence of ASCs presentation relied on the idea of cognitive hierarchy and learnability among ASCs. Each class consisted of a guessing activity with pictures, instructions by the researcher, and one writing practice session on a given topic. All writing topics were related to the target ASCs so that the learners could be given constant practice with them. They were prohibited to use any electronic devices during all the sessions; the researcher assisted their inquiries about English words. After each session, the researcher gave the learners positive feedback on their writing, focusing on general comprehension and impressions and not on grammatical accuracy related to their instance of ASCs and BVs.

Table 3.3 Outline of the Class

Step / Time	Content
-------------	---------

Pre-test	Grammaticality Preference Task
	Writing Task (" <i>Make your own story</i> ")
1 st	Transitive (1): Basic features, Writing (" <i>Introducing myself</i> ")
2 nd	Transitive (2): Extension, Writing (" <i>Your sense of values</i> ")
3 rd	Ditransitive (1): Basic features, Writing (" <i>Planning</i> ")
4 th	Ditransitive (2): Extension, Writing (" <i>On rainy days</i> ")
5 th	Caused-motion (1): Basic features, Writing (" <i>Making food</i> ")
6 th	Caused-motion (2): Extension, Writing (" <i>Describing scenes</i> ")
7 th	Intransitive-motion (1): Basic features, Writing (" <i>Trip to somewhere</i> ")
8 th	Intransitive-motion (2): Extension, Writing (" <i>Describing scenes</i> ")
9 th	Resultative (1): Basic features, Writing (" <i>Your daily life</i> ")
10 th	Resultative (2): Extension, Writing (" <i>Describing scenes</i> ")
11 th	Intransitive-resultative (1): Basic features, Writing (" <i>After five years</i> ")
12 th	Intransitive-resultative (2): Extension, Writing (" <i>Four seasons in Korea</i> ")
Main test	Review on ASCs / Writing Task (" <i>Make your own story</i> ") Grammaticality Preference Task
Post-test	Writing task (" <i>Make your own story</i> ")
Delayed post-test	Writing task (" <i>Make your own story</i> ")
	(conducted one week after the post-test)

3.3.2. General Procedure of Each Class¹⁶

Table 3.4 provides the general flow of the individual classes. Each type of ASCs was distributed over two sessions. The first session started with a review of the last class, manipulating input frequencies of BV-ASC sets (i.e., four sentences with the target core BV, and then four additional sentences including other verbs). Next, the learners were asked to describe four different pictures using the target BV. Explicit explanations of the target ASCs were then presented regarding the relevant structural and semantic/functional characteristics. The learners were then given additional pictures with the selected verbs to assist with their guessing and enhance their linguistic knowledge. The corresponding Korean translations were presented at the same time to help the learners understand the meaning of the pictures. Lastly, the learners were asked to complete a free writing task on the selected topic. During the second session, nearly every procedure was identical to that of the first session except for the ‘Extension’ stage in which learners were given more diverse types of verbs so that they could utilise their prior knowledge and activate their cognitive mechanisms further.

¹⁶ The actual lesson plan and materials will be shown in Appendix 1.

Table 3.4 General Procedure of Each Class

Type	Stage	Time (min.)	Content (the number of sentences)
First Session			Greetings
	Warm-up	5	Review of the last class (4-1-1-1-1)
			Introduction
	BV	10	Target basic verbs (4 * 2)
	ASC	5	Direct explanation on the target ASC
	Semi-open	5	4 more verbs (2-2-2-2) Filling in the blanks with the pictures
	Writing	15	Free-writing (topics given)
Second Session			Greetings
	Warm-up	10	Review of the last class (4-1-1-1-1)
			Introduction
	Extension	15	Pictures & example sentences (verbs expanded; one verb in one sentence)
	Writing	15	Free-writing (topics given)

3.4. Data Collection and Analysis

This section describes the process of collecting and analysing the experimental

data. Specifically, the first section details the collection of three types of data in this study, and the second section deals with how the data were analysed through technical methods with selected error types.

3.4.1. Data Collection¹⁷

The data were collected in three ways. First of all, a ‘grammaticality preference task’ was developed to investigate whether the participants showed any changes in their perception of ASCs after the instruction.¹⁸ The learners were asked to choose the most appropriate sentence from the eight options that described each picture. Among the eight options, six options were based on the target ASCs. The other two options were an intransitive construction (i.e., S-V) and ‘none of the above’. All of the options except the last one included nonsense verbs that do not exist in English. The number of total items was thirty without fillers, and thirty seconds was allowed for the students to answer each item. When this time elapsed, the PowerPoint slide automatically changed to the next one.

Second, free writing data were gathered four times (i.e., a pre-test, a main test, a post-test, and a delayed post-test) to examine any (lack of) progress in their production and as a follow-up assessment of the students’ linguistic or cognitive changes throughout the experiment. The participants were asked to create their own

¹⁷ The samples of each task will be exemplified in Appendix 2.

¹⁸ The test was conducted twice (i.e., pre-test and main test) and the pictures and the options of the main test were the same as those of the pre-test.

story using nine irrelevant pictures in an exercise lasting twenty minutes. The researcher presented the selected BVs in learners' writing sheets and emphasised that the students should make their story as lengthy and as detailed as they could.

Lastly, the writing data from the assigned topics from every session were also collected to identify the participants' developmental aspects. Two different yet learner-related typical topics in each type of ASCs were presented. The researcher did not emphasise that the specific ASCs may be frequently used in each writing topic, but it was explained to the students that the writing practices functioned as a summary of the class and as a useful tool for learning English better.

3.4.2. Data Analysis

Regarding the data from the grammaticality preference task, the proportion of all correct answers and the percentage of correct answers on each type of ASCs were individually calculated. For the writing data, the number and the proportions of all sentences, grammatically correct sentences, verbs, BVs, and ASCs were counted. The proportions of BVs in each type of ASCs were also calculated. In addition, manual observations of writing data, including common errors and instances of creative usage, were done in an effort to assess the developmental progress of the participants.

In the evaluation of sentence accuracy, the misuse of articles, the third-person-singular present '-s', tense and aspect errors, and local errors including spelling and

punctuation rules, and similar minor errors were not considered since those errors were not the main concern here and because they were not dealt with in the classes. However, inappropriate omissions or usages of sentence structures and instances of incorrect word order were regarded as errors because these are closely related to the grammaticality of ASCs.

This study adopted three electronic programs to analyse the data. First, Wordsmith Tools (version 5.0) was used to sort all the writing data and to find specific instances among the data. SPSS (version 12.0) was also used to conduct a Wilcoxon matched-pairs signed-rank test to assess the instructional effects regarding ASCs in terms of comprehension. Lastly, Microsoft Excel 2010 was used to present the differences between the grammaticality preference tasks graphically.

CHAPTER 4.

RESULTS AND DISCUSSION

This chapter includes detailed analyses and interpretations on the data from the experimental tasks. The first section offers general summarisation of the two types of data (i.e., the grammaticality preference task and the free writing task) using descriptive and inferential statistics. The next section deals with qualitative descriptions of all of the writing data, focusing on remarkable features such as sentence patterns and the use of ditransitive constructions and BVs. The last section provides examples of learners' cognitive mechanism activation, confirming the idea of item-based piecemeal learning.

4.1. First Glance: General Analyses of the Data

This section offers the general analyses on the two types of data (i.e., the grammaticality preference task and the free writing task). Specifically, the data from the grammaticality preference task are mainly dealt with in a statistical way, and the free writing data are manually analysed in light of the use of ASCs and BVs.

4.1.1. Grammaticality Preference Task

The grammaticality preference task was conducted to diagnose any change in

participants' comprehension of the ASCs before and after the instruction periods. The Wilcoxon matched-pairs signed-rank test¹⁹ regarding the percentage of correct answers for all ASCs generally indicated that there was a significant change in their levels of understanding of the ASCs after the instruction sessions [$Z(15) = -2.953$, $p = .003$ (two-tailed)]. In addition, the increase was supported by the proportion of correct answers on each type of ASCs through the same statistical method. As displayed in Table 4.1, the participants showed significantly higher percentages of correct answers post-instruction regardless of the types of ASCs.

Table 4.1 Proportions of Correct Answers for Each Type of ASCs

Type ²⁰	Pre-test	Main test	Z	Sig. (two-tailed)
TR	17.66	68.87	-2.865	.004
DI	38.23	73.33	-2.220	.026
CM	48.62	95.28	-3.235	.001
RS	20.24	90.00	-3.305	.001
IM	37.02	73.33	-2.283	.022
IR	33.88	81.78	-2.950	.003

The learners improved their understanding of the target ASCs after the instruction, with the observation providing direct proof of the existence of sentence-

¹⁹ The Wilcoxon matched-pairs signed-rank test, one of the non-parametric statistical hypothesis tests, was adopted because the data did not satisfy the assumption of normal distribution.

²⁰ TR, DI, CM, RS, IM, IR are abbreviations of transitive, ditransitive, caused-motion, resultative, intransitive-motion, and intransitive-resultative constructions, respectively.

level generalisations in language comprehension irrespective of individual predicates. Indeed, there is growing body of research (e.g., Ahrens, 2003; Bencini & Goldberg, 2000; Gries & Wulff, 2005; Kashack & Glenberg, 2000; Liang, 2002; Martínez Vázquez, 2004; Shin, 2010, 2012) confirming that sentence patterns contribute significantly to sentence interpretation and processing, independent of the role of main verbs.

The findings from the experiment also validate the idea that knowledge of ASCs provides learners with much easier access to the system of the target language. Celce-Murcia and Larsen-Freeman (1999, p. 4) states that “grammar is not merely a collection of forms but rather involves the three dimensions of what linguists refer to as (morpho)syntax, semantics, and pragmatics”. In this respect, instructions on constructions give learners structural awareness, semantic adequacy, and functional-pragmatic appropriateness.²¹ Particularly in the case of ASCs, their central senses are intimately connected to basic human experiences; consequently, the instruction of ASCs is very likely to operate as a reasonable pulley to improve the effectiveness of language acquisition.

²¹ The reliability of the interpretation of the results above was called into question. There was no control group or comparison group(s), so it might be doubtful whether learners’ improvements were drawn from ASCs networking or not. Instead, what was mainly focused on in this paper was to trace their developmental aspects and relative accessibility of ASCs over the instruction within the framework of usage-based language acquisition. Thus, greater emphasis was put on changes and linguistic behaviours between the test phases.

4.1.2. Free Writing Tasks

Descriptive analyses of the production of ASCs and BVs were conducted with the participants' free writing data to investigate developmental patterns from the perspective of production. Table 4.2 summarises the number of ASCs and BVs produced by the learners during the writing tasks. The data demonstrated the frequent use of the target ASCs and BVs from the pre-test to the main test, the post-test, and the delayed post-test, suggesting a progressive effect of the instruction on the learners' production. In addition, the fact that the instruction effect lasted for a certain period was corroborated by the general tendency of the usage of ASCs and BVs after the main test. What is interesting is that the degree of ASCs utilisation was much higher than that of the BVs use.

Table 4.2 Number of ASCs and BVs in Free Writing Tasks

Code	ASC (N)				BV (N)			
	Pre	Main	Post	Delayed	Pre	Main	Post	Delayed
A	4	5	5	11	1	1	2	5
B	2	10	4	4	-	2	-	-
C	11	9	19	9	-	1	5	4
D	2	8	8	3	-	3	3	2

E	2	3	1	1	-	-	1	-
F	1	5	8	6	1	2	2	1
G	-	7	5	7	-	-	2	2
H	2	3	4	3	-	-	1	-
I	5	10	10	9	1	4	5	1
J	6	5	3	7	-	-	1	-
K	8	2	3	3	2	-	1	1
L	-	6	7	3	-	3	-	-
M	2	8	6	13	-	-	1	-
N	2	7	5	8	-	1	3	1
O	3	11	5	8	3	2	5	4
SUM	50	99	93	95	8	19	32	21

In order to address the issue of the degree to which each type of ASCs and BVs was utilised and the relationship between them, in-depth analyses of the free writing data were carried out. From the overall number of correct ASCs over the four free writing tasks (see Table 4.3), different degrees of producing the target ASCs were detected. In particular, transitive constructions were the most actively used configurations among the six ASCs. Representations using two arguments (i.e.,

intransitive-motion and intransitive-resultative constructions) were more frequently produced than those using three arguments (i.e., ditransitive, caused-motion, and resultative constructions). Furthermore, there was no production of resultative constructions.

Table 4.3 Overall Number of Correct ASCs in Free Writing Tasks

	TR (N)	DI (N)	CM (N)	RS (N)	IM (N)	IR (N)	SUM
Pre	39	0	3	0	5	3	50
Main	67	2	8	0	8	14	99
Post	54	3	3	0	30	3	93
Delayed	69	5	1	0	14	6	95
SUM	231	10	15	0	57	26	337

It seems that there was a connection between the later presentation of a certain sentence pattern and the decreased production of the representation. This may be partially true in that, for example, transitive constructions were the most frequently produced configuration and utilised far more than intransitive-resultative constructions. What is more apparent, however, is a clear tendency for the much more frequent production of two-argument ASCs than three-argument ASCs irrespective of the presentation order (see Table 3.3 for the ASCs presentation order and Table 4.3 for the actual tendency of ASCs production), which cannot be

accounted for by the ASCs presentation order itself. Hence, although the ASCs presentation order might be influential to the process of changing input into intake, the sequence does not seem to function as positive reinforcement to make a certain ASCs more frequently produced than others.

Fluctuation in the use of the ASCs was revalidated through the individual descriptions of each ASCs production. As Table 4.4 presents, the learners' production was mostly centred on the transitive constructions regardless of the test phases. The use of intransitive-motion and intransitive-resultative constructions was more frequent than the other three-argument constructions, especially after the instruction period. However, the proportions of each sentence pattern implied that there was little consistency in the production of ASCs, which makes it more difficult to find any tendency in the learners' use of the target sentence patterns.

Table 4.4 Correct Use of Each Type of ASCs in Free Writing Tasks

ASC	Test	A	B	C	D	E	F	G	H
	Pre	3(60)	2(50)	8(57)	2(67)	2(40)	-	-	1(33)
TR	Main	4(50)	7(33)	6(46)	4(36)	3(60)	3(60)	7(78)	3(50)
(N (%)) ²²	Post	2(33)	3(33)	12(57)	4(40)	-	5(56)	3(38)	3(43)
	Delayed	6(46)	4(57)	3(30)	1(17)	1(20)	3(38)	6(67)	3(75)

²² N means the total number of correct use of the target ASC, and % means the percentage of the correct use over the entire sentences. Sentence structures such as 'X-be-Y', simple intransitives, and fixed expressions (e.g., *thank you*, *nice to meet you*, etc.) were not included in the calculation.

	Pre	-	-	-	-	-	-	-	-
DI	Main	-	-	-	-	-	-	-	-
(N (%))	Post	-	-	2(10)	-	-	-	-	-
	Delayed	3(23)	-	2(20)	-	-	-	-	-
	Pre	-	-	1(7)	-	-	-	-	1(33)
CM	Main	1(13)	-	2(15)	1(9)	-	-	-	-
(N (%))	Post	-	-	-	-	-	1(13)	-	-
	Delayed	-	-	-	-	-	-	-	-
	Pre	-	-	-	-	-	-	-	-
RS	Main	-	-	-	-	-	-	-	-
(N (%))	Post	-	-	-	-	-	-	-	-
	Delayed	-	-	-	-	-	-	-	-
	Pre	1(20)	-	-	-	-	-	-	-
IM	Main	-	1(5)	1(8)	3(27)	-	-	-	-
(N (%))	Post	3(50)	1(11)	4(19)	4(40)	1(50)	1(11)	2(25)	1(14)
	Delayed	2(15)	-	2(20)	2(33)	-	1(13)	1(11)	-
IR	Pre	-	-	2(14)	-	-	1(100)	-	-

(N (%))	Main	-	2(10)	-	-	-	2(40)	-	-
	Post	-	-	1(5)	-	-	1(13)	-	-
	Delayed	-	-	2(20)	-	-	2(25)	-	-

Table 4.4 (Cont'd)

ASC	Test	I	J	K	L	M	N	O
	Pre	4(44)	6(75)	6(40)	-	2(50)	2(100)	1(25)
TR	Main	5(45)	4(57)	1(33)	2(22)	6(43)	3(30)	9(69)
(N (%))	Post	4(36)	2(29)	2(40)	7(54)	5(71)	2(20)	-
	Delayed	8(62)	6(67)	2(33)	3(60)	13(81)	6(67)	4(50)
	Pre	-	-	-	-	-	-	-
DI	Main	1(9)	-	-	1(11)	-	-	-
(N (%))	Post	1(9)	-	-	-	-	-	-
	Delayed	-	-	-	-	-	-	-
	Pre	-	-	-	-	-	-	1(25)
CM	Main	2(18)	-	-	1(11)	-	1(10)	-
(N (%))	Post	2(18)	-	-	-	-	-	-
	Delayed	-	1(11)	-	-	-	-	-

	Pre	-	-	-	-	-	-	-
RS (N (%))	Main	-	-	-	-	-	-	-
	Post	-	-	-	-	-	-	-
	Delayed	-	-	-	-	-	-	-
	Pre	1(11)	-	2(13)	-	-	-	1(25)
IM (N (%))	Main	-	-	-	-	-	1(10)	2(15)
	Post	2(18)	1(14)	1(20)	-	1(14)	3(30)	5(71)
	Delayed	1(8)	-	1(17)	-	-	1(11)	3(38)
	Pre	-	-	-	-	-	-	-
IR (N (%))	Main	2(18)	1(14)	1(33)	2(22)	2(14)	2(20)	-
	Post	1(9)	-	-	-	-	-	-
	Delayed	-	-	-	-	-	1(11)	1(13)
	Pre	-	-	-	-	-	-	-

The aspects of BV usage are also noteworthy (see Table 4.5). Generally, the number of times that the learners used the target BVs was far lower compared to the amount of input. Especially in the case of transitive constructions, the target BV was scarcely produced. The proportions of BVs regarding the other five types of ASCs revealed, however, that the learners almost always included the target BV whenever they wrote the target ASCs in each case.

Table 4.5 Number of BVs Used in Each Type of ASCs

ASC	Test	A	B	C	D	E	F	G	H
<i>do</i> in TR (N (%)) ²³	Pre	-	-	-	-	-	-	-	-
	Main	-	-	-	-	-	-	-	-
	Post	-	-	-	-	-	-	-	-
	Delayed	-	-	-	-	-	-	1(17)	-
<i>give</i> in DI (N (%))	Pre	-	-	-	-	-	-	-	-
	Main	-	-	-	-	-	-	-	-
	Post	-	-	1(50)	-	-	-	-	-
	Delayed	3(100)	-	2(100)	-	-	-	-	-
<i>put</i> in CM (N (%))	Pre	-	-	-	-	-	-	-	-
	Main	1(100)	-	-	-	-	-	-	-
	Post	-	-	-	-	-	1(100)	-	-
	Delayed	-	-	-	-	-	-	-	-
<i>make</i>	Pre	-	-	-	-	-	-	-	-

²³ N means the total number of BV use of the target ASC, and % means the percentage of the BV in the target ASC.

in RS (N (%))	Main	-	-	-	-	-	-	-	-
	Post	-	-	-	-	-	-	-	-
	Delayed	-	-	-	-	-	-	-	-
<i>go</i> in IM (N (%))	Pre	1(100)	-	-	-	-	-	-	-
	Main	-	-	1(100)	3(100)	-	-	-	-
	Post	2(67)	-	3(75)	3(75)	1(100)	1(100)	2(100)	1(100)
<i>become</i> in IR (N (%))	Delayed	2(100)	-	2(100)	2(100)	-	-	1(100)	-
	Pre	-	-	-	-	-	1(100)	-	-
	Main	-	2(100)	-	-	-	2(100)	-	-
<i>do</i> in TR (N (%))	Post	-	-	1(100)	-	-	-	-	-
	Delayed	-	-	-	-	-	1(50)	-	-

Table 4.5 (Cont'd)

ASC	Test	I	J	K	L	M	N	O
<i>do</i> in TR (N (%))	Pre	-	-	-	-	-	-	1(100)
	Main	-	-	-	-	-	-	-
	Post	1(20)	-	-	-	-	-	-
	Delayed	-	-	-	-	-	-	-

<i>give</i> in DI (N (%))	Pre	-	-	-	-	-	-	-
	Main	1(100)	-	-	1(100)	-	-	-
	Post	-	-	-	-	-	-	-
	Delayed	-	-	-	-	-	-	-
<i>put</i> in CM (N (%))	Pre	-	-	-	-	-	-	1(100)
	Main	1(50)	-	-	1(100)	-	-	-
	Post	2(100)	-	-	-	-	-	-
	Delayed	-	-	-	-	-	-	-
<i>make</i> in RS (N (%))	Pre	-	-	-	-	-	-	-
	Main	-	-	-	-	-	-	-
	Post	-	-	-	-	-	-	-
	Delayed	-	-	-	-	-	-	-
<i>go</i> in IM (N (%))	Pre	1(100)	-	2(100)	-	-	-	1(100)
	Main	-	-	-	-	-	1(100)	2(100)
	Post	2(100)	1(100)	1(100)	-	1(100)	3(100)	5(100)
	Delayed	1(100)	-	1(100)	-	-	1(100)	3(100)
<i>become</i>	Pre	-	-	-	-	-	-	-

in IR	Main	2(100)	-	-	1(50)	-	-	-
(N (%))	Post	-	-	-	-	-	-	-
	Delayed	-	-	-	-	-	-	1(100)

4.2. Second Glance: Qualitative Descriptions on the Data

This section provides qualitative descriptions of the writing data that is connected to three distinguishable factors: the learners' use of sentence patterns, ditransitive constructions and their prepositional alternatives, and the aspects of BVs usage.

4.2.1. Learners' Use of Sentence Patterns

The learners showed consistent improvement in the comprehension of each type of ASCs after the instruction sessions. The production data, however, indicate learners' partial utilisation of the target ASCs (see Table 4.3 and Table 4.4). Transitive constructions were the most frequently used structures regardless of the test stage, and intransitive-motion and intransitive-resultative constructions were also frequently produced after the instruction. However, the other three types of constructions were rarely produced. Especially in the case of resultative constructions, there were no instances of correct usage on the tests. Learners' trials

of using three-argument frames over the writing practices are exemplified in Table 4.6. The sentences were broadly grouped into two categories: ① the omission of obligatory elements, and ② the inappropriate use of verbs and instances of constructions incorporation.

Table 4.6 Examples of Learners' Trials of Using Three-argument Frames

Code	Phase	Example	Intended ASC	Group
A	6 th	and throw the knife.	CM	①
D	4 th	First, put some cabbage, [...] and carrot	CM	①
D	Main	The waiter throw the running train	CM	①
E	Main	Mickey's box give to the girlfriend, winey.	DI	②
G	6 th	because chef give coffee	DI	①
H	5 th	next they put on the dish	CM	①
M	2 nd	then I want everyone come true	RS	②
M	Main	the people put the box and	CM	①
O	Post	Boy want friend rice	DI	②

The reason behind these phenomena may be the insufficiency of the input and the instability of learners' linguistic knowledge. In this experiment, the input was strictly manipulated in terms of input frequency. Although the target ASCs were given to the learners intensively throughout the instruction sessions, the number of times that each type of ASCs was presented was less than fifty. Thus, the amount of

input may not have been large enough to help the learners become familiarised enough with those representations to express their communicative intentions. The learners' linguistic knowledge fluctuation also played a role in their performance. They partially knew the verbs and the structures, frequently omitting obligatory constituents such as prepositional phrases or merging linguistic elements improperly, as illustrated in Table 4.6.

The question still remains on the aspects pertaining to the usages of two-argument ASCs compared to those of the three-argument ASCs. As shown in Table 4.3 and Table 4.4, three types of two-argument ASCs (i.e., transitive, intransitive-motion, and intransitive-resultative constructions) were more frequently produced than the other three types of three-argument ASCs (i.e., ditransitive, caused-motion, and resultative constructions). Furthermore, it was observed that the number of times that learners used intransitive-motion constructions increased after the main test. In contrast to the zero-usage of resultative constructions, however, intransitive-resultative constructions were more frequently produced.

Previous research commonly reported L1 influence, crosslinguistic differences, prototypicality, and lack of lexical understanding to be important factors affecting the acquisition and the utilisation of constructions (Bybee, 2008; Goldberg, 1995, 2006; Goldberg & Casenhiser, 2008; Lee & Kim, 2011; Odlin, 2008). The inconsistent use of the target representations, however, appears to be associated with the level of 'construction-internal complexity' (Lee & Kim, 2011). The learners received the same amount of input regardless of the types of ASCs, but they showed different levels of ASC usage. Thus, it is probable that the internal relationship

between the ASCs has a critical impact on learners' actual performance.

Through the experiment, it is concluded that the levels of the relative accessibility of the six target ASCs in this study are significantly different from the inheritance hierarchy schematisation discussed in Goldberg (1995) (see Figure 2.1); rather, the tendency bears a curious likeness to the developmental sequence presented in Lee and Kim (2011). To illustrate, unquestionably, transitive constructions were the easiest frame due to the fundamental relationship of human behaviour (Akhtar & Tomasello, 1997; Dodson & Tomasello, 1998; Olguin & Tomasello, 1993; Tomasello & Brooks, 1999), with intransitive-motion and intransitive-resultative constructions found as the second most frequently produced sentence pattern group due to comparatively low processing load. Compared to the two-argument constructions, the other three types of constructions (i.e., ditransitive, caused-motion, and resultative constructions) were less accessible configurations. The resultative constructions were the most difficult type for the learners to produce. As Lee and Kim (2011) points out, the learners in this experiment were likely to have trouble processing the three-argument ASCs due to heavier cognitive burden compared to the two-argument ASCs, failing to capture the internal network between ASCs.

4.2.2. Ditransitive Constructions and Prepositional Datives

The group of sentences shown in Table 4.7 is the dative sentences which the

learners actually produced. The examples have three different characteristics. First, the sentences included a mixture of [Subj + Verb + Obj + Obj] and [Subj + Verb + Obj + prep + Obj] forms. Second, the verbs in the sentences were mainly *give*. Lastly, most of the [Subj + Verb + Obj + prep + Obj] structures included the preposition *for* although there was no instruction on prepositional alternatives.

Table 4.7 Learners' Writing Examples of Dative Sentences

Phase	Code	Example
Pre	C	Next day, I gave the apples to my friend.
3 rd	G	I buy a note and books for Jackie.
	J	Mom and dad anniversary I give parent's present couple ring.
	O	on Monday I will buy friend present
6 th	D	So chef give SHE's a glass of coffee.
	N	I will not give food for you
10 th	F	So Garfield ask him "why are you shout?"
	H	Garfield give he questions
11 th	N	The offspings will send to overseas travel for me and my wife
	A	She gives hay for donkey
	B	and the lady bake a grapes pie for man
Main	D	A man gives gift to woman.
	G	I give for Jane Gudal's daughant present
	I	Jack gives his lover the present and a donkey

	K	A man give gift for girl.
	L	I give my lover this box.
	A	Their family gives present and blue rose for they
	C	and (my friend) give me a present.
Post	F	Aunts give a gift to a boy
	H	because he give present for his friend
	I	They will make presents for giving parents.
	A	but he gives her homelunball
	C	I also give her material
Delayed	G	She gives ball him
	H	but his friend give material for him
	M	and give present for her.

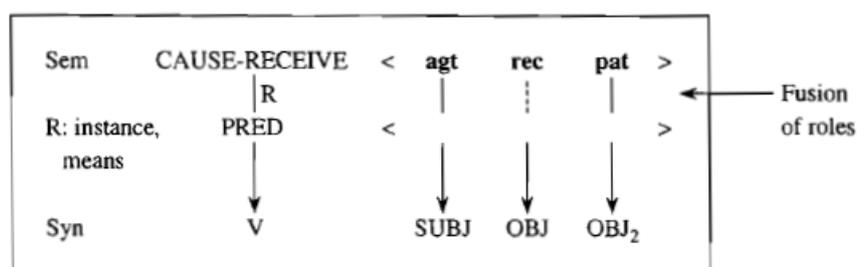
All natural languages in the world have grammatical representations for expressing ‘transfer of objects’ between people (Newman, 1996). In English, the patterns are realised as two types of distinguished yet closely related constructions: ditransitive constructions (hereafter DIs) and prepositional datives (hereafter PDs), such as those shown in (1) and (2), respectively:

(1) I gave Jo a book.

(2) I gave a book to Jo.

In the field of usage-based linguistics, DIs are viewed as an independent linguistic unit including a syntactic frame (i.e., Subj - Verb - Obj₁ - Obj₂) as well as semantics of transfer of possession (i.e., X_{agt} causes Y_{rec} to receive Z_{pat}). As schematised in Figure 4.1²⁴, the formulation of the representation comes out of role fusion, semantically blending both required participant roles of the verb and the required argument roles of the argument structure construction (Goldberg, 1995).

Figure 4.1 English Ditransitive Constructions



In contrast to DIs, any verbs which have allative semantics are uniquely associated with PDs (Bresnan & Nikitina, 2008). In English, there are mainly two types of PDs (i.e., *to*-datives (3) and *for*-datives (4)):

(3) Mary sent a letter to her father.

(4) Mary bought a sweater for her mother.

²⁴ The figure was borrowed from Goldberg (1995, p. 50).

According to Whong-Barr and Schwartz (2002), some sort of ‘possession constraint’ is at work: in the case of *to*-datives, the first object must be a potential possessor with the semantic role as *goal*; in the case of *for*-datives, the object must be a potential possessor with the semantic role as *beneficiary* (Aoun & Li, 1989; Goldsmith, 1980; Grimshaw, 1989; Jackendoff, 1990; Larson, 1988; Pinker, 1989).

It is clear that the learners generally understood the elements composing the DIs. The datives are reported to require three arguments, and each argument has the distinguished semantic roles of *agent*, *recipient*, and *patient*. The learners showed consistent use of [+animate] words as *recipient* and [-animate] words as *patient*. Some of the sentences lack an *agent* role. The deletion was, however, recovered from the contexts in the writings; the *agent* of the particular action was presented one or two sentences prior to the omission. Moreover, the sentences denote the meaning of ‘transfer of possession’, which is the core semantics in the target structure.

Next, although the learners had received frequency-manipulated instructions on DIs, they preferred to borrow the PDs form. This is understood as a limitation of the learners' cognitive access to the target language system due to the large cognitive load of DIs compared to that of PDs. The learners most likely noticed the core meaning of DIs, but they also felt difficulty in actually producing the DIs. Thus, they strategically merged transitive constructions with prepositional phrases to fulfill their communicative intentions. Year and Gordon (2009) supports this view, commenting that it is difficult for Korean learners of English to acquire DIs because they have to pay attention to a new type of word order and learn entirely new associations

between grammatical forms and relevant semantic constraints from the input.

The question therefore centres on why the learners stubbornly produced *for*, as opposed to *to*. Whong-Barr and Schwartz (2002) presents an interesting view regarding *for*-datives:

When Koreans begin to acquire English, they initially “look for” a piece of morphology analogous to *cwu-* to license the DOD [**DI in this paper**] in English. ... As no such benefactive verbal element exists in English, their Interlanguage grammar will be unable to license a benefactive DOD, the result of which is that they will initially disallow all double-object *for*-dative forms. Yet, benefactive DODs will continue to be present in the input. So, despite the absence of an overt benefactive morpheme in English, Koreans will start to learn the DOD form of *for*-dative verbs on the basis of positive evidence, and they will continue to do so on a verb-by-verb basis.

(Whong-Barr & Schwartz, 2002, pp. 606-607, bold letter added)

As Jiang (2000, 2002) points out, L2 vocabulary acquisition requires the mapping of target forms to the existing semantic contents of L1 translations rather than to new semantic specifications of the word. In this sense, it is a plausible explanation that the learners chose *for* based on their L1 knowledge, which corresponds to the requirements of the verb *give*.

4.2.3. BVs Usage

There are two remarkable aspects to be observed in Table 4.2 and 4.5. The first observation was that the overall amount of BVs use was not larger in consideration of the frequency manipulation of the input material. The second observation was that the degree of BVs utilisation differed in accordance with the types of the ASCs. In the case of transitive constructions, the target BV (i.e., *do*) was rarely used. In the case of other constructions, however, almost all the sentences included the target BVs. Table 4.8 further exemplifies all of the verbs used in the writing tasks after the instruction (i.e., the main test, the post-test, and the delayed post- test).

Table 4.8 Examples of Verb Use in Free Writing Tasks

DI		CM		RS		IM		IR	
Verb	N	Verb	N	Verb	N	Verb	N	Verb	N
<i>give</i>	8	<i>put</i>	6	-	-	<i>go</i>	46	<i>become</i>	10
make	1	throw	5			come	4	get	8
		take	1			move	1	look	3
						arrive	1	feel	1
								taste	1
TR									
Verb		N		Verb		Verb		N	

make	21	boil, bring, find, like, meet,	3
eat	20	open, play, receive, take	
have	11		
say	8	bet, break, climb, <i>do</i> , experience, want	2
see	7		
hit	7	bake, catch, change, curse, decide, feel, finish,	1
use	6	fish, hate, lay, marry, mean, miss, need, pile,	
cook, drink, get	5	raise, remember, save, start, suggest, treat,	
break, buy, know, love, visit	4	understand, whisper, win, write	

From the observations, it is a reasonable interpretation that learners perceived a BV and its corresponding ASCs as a single input except in the case of transitive constructions. Their recognition of the elements can be attributed to the semantic resemblance between the items and the power of input frequency.²⁵ As discussed earlier, there exists a very high similarity between the meaning of the target BVs and that of the target ASCs (Goldberg et al, 2004; Naigles & Hoff-Ginsberg, 1998; Sethuraman, 2002; Viberg, 2002; Year & Gordon, 2009). In addition, when children

²⁵ Additional observation was that several learners gradually corrected their linguistic knowledge based on the input that they were given:

- (a) so I *want running* outside. (4th, C)
- (b) Oh! Do you *want fight* with me? (6th, C)
- (c) Then I *want to go* to cliff. (POST, C)

- (d) And I will *go wall street*. (7th, I)
- (e) I *go to school*. (9th, I)

Although the case was marginal, the gradual approximation towards the target language system would be one of the powerful effects of input frequency.

attempt to apply a particular syntactic frame to particular items, they choose the items which they have most frequently heard in the patternised input, termed ‘highly constrained slots’ (Tomasello, 2000a) (Abbot-Smith & Tomasello, 2006). Likewise, Dabrowska (2004) proposes that the frequency of input is one of the processing shortcuts in that information on the relative frequency of words and constructions helps language users easily activate and process the language system. Thus, it is highly probable that the learners in this study felt much more ease when they processed a target ASC-BV combination in an unspecified way the very first time. This unspecified circumstance then lasted for a certain period, eventually appearing in the form of the learners’ producing the same combination in an unspecified manner again.

However, the learners’ use of verbs in the transitive constructions can be read as their maximal utilisation of language knowledge that they have already acquired, reconfirming the properties of BVs as communicative mediators with little meaning. It is claimed that simple transitive constructions are the most productive representations (Akhtar & Tomasello, 1997; Dodson & Tomasello, 1998; Olguin & Tomasello, 1993; Tomasello & Brooks, 1999). To put it differently, the representation has comparatively greater accessibility, which helps language learners acquire and use the frame very easily. Therefore, when expressing their communicative intentions through transitive constructions, if the learners already knew verbs which have more concrete meanings and were sufficiently familiar with configurations such as transitive constructions, they did not have to follow the target BVs into the sentence frame; rather, they attempted to apply new items to the frames

instead of relying only on the BVs.²⁶

The results also capture the utilisability of ASC-BV combinations as a facilitative tool at the beginning stage of language acquisition, providing a path to adequate access to the target language system. Selected BV-ASC sets were intensively provided in this study; although there were fluctuations, the learners improved their understanding of the patterns and generally showed a more balanced use of ASCs with BVs after the instruction period. BVs are believed to be easily acquired and frequently used, especially at the incipient stage of language development. ASCs are also regarded as an effective starter in language learning and teaching due to the fundamentally close relationship with humans' basic behaviours. Moreover, BVs further appear to encourage the learners to use other types of verbs in multiple constructions (Ninio, 1999; Sethuraman, 2002). Accordingly, it stands to reason that the semantic-functional similarity of BVs and ASCs would surely help learners rely on and infer from the features of BVs to produce connected ASCs more efficiently.

²⁶ It is valid argument that the variation of verb use in Table 4. 8 can be accounted for by learners' previous linguistic experiences from the primary to the current secondary English education. Although this viewpoint was marginal to this study as the purpose of this paper was to trace developmental aspects and relative accessibility of ASCs over the instruction, it remains as a potential issue for further research.

4.3. Evidence of Item-based Piecemeal Learning²⁷

This section investigates the question of whether language learners acquire the target language system in an item-based fashion through cognitive mechanisms, focusing on two intriguing patterns found in their writing samples. First, several participants continually produced *want to* and *go to* regardless of the type of complement which followed the forms:

(5) K, 4th

and on rainy day I **want to** korean pancake and kimchi

on rainy day I doesn't **want to** clean

(6) L, 7th

I **want to** sleep in the house.

Umm... I **want to** go to Australia.

Because I **want to** a rest.

(7) M, 7th

and I **go to** big ben

Then I **go to** hotel

and **go to** home

(8) M, 9th

and I **go to** bathroom

and I **go to** school

(9) N, 9th

and **went to** school

Next **went to** home

²⁷ It is true that, since the interpretation of the data was conducted within the framework of usage-based language acquisition, there is still another possibility of data interpretation using other viewpoints of language acquisition, such as *Universal Grammar*.

I **go to** home.

and **go to** bed

Along with the phenomenon above, other participants combined certain lexical items as chunks (e.g., *A goes to B. A eats C.* and *A want to go to B because A eat C*) and made use of those chunks repeatedly:

(10) D, POST

The donkey *goes to* factory.

The donkey *eats* blueberry.

The donkey *goes to* restaurant.

The donkey *eats* pancake.

(11) G, 7th

I *want to* go to the USA

because I *eat* hamburger in USA

I *want to* go to the Italy

because I *eat* pizza in Italy

Second, the learners showed creative usages in their writing tasks. The example sentences below show that, although the learners understood the basic features of formal patterns, semantics, and functions of ASCs, their composition of sentence patterns and verbs appeared to be clumsy:

(12) Then windy blowed me (A, 4th)

(13) They trip for place (A, MAIN)

(14) I will die you tonight (H, 6th)

(15) I do my listening to music (J, 3rd)

(16) My friend is whispered me “This present means ‘now’”. (B, POST)

(17) Boy want friend rice (O, POST)

Tomasello (2005) assumes that children are confronted with particular exemplars of utterances at the very first stage of language learning. They then develop their linguistic knowledge from the lexically specific stage to the 'slot' stage where they can insert new lexical items (Lieven & Tomasello, 2008). Creating 'prefabricated chunks' (Dabrowska, 2004) is advantageous during the process because the chunks make it far easier to retrieve linguistic items from learners' stored linguistic experiences (Tomasello, 2000a), lessening the burden of language processing.

With the explanations above in mind, it is no exaggeration to say that these observations reflect the process of usage-based language acquisition. The learners in this experiment combined the verbs (e.g., *want* and *go*) with *to* based on the input that they had received (e.g., the sentences (5) to (9)). Once the learners were familiarised with the structural distributions and semantic-functional features of the target sentence patterns, they started to utilise the pre-made chunks more elaborately and repeatedly such as in (10) and (11). Note that the learners understood semantic-functional requirements before and after the chunks and attempted to make the combinations patternised. These observations provide supportive evidence of emerging initial forms of constructions from linguistic exemplars, as reported in a great amount of prior studies regarding the process of usage-based language acquisition (Bybee, 2010; Ellis & Ferreira-junior, 2009; Goldberg, 2006; Goldberg et al., 2004; McDonough & Kim, 2009; Tomasello, 2000a, 2000b, 2003; Tomasello & Brooks, 1999).

Sometimes learners cannot simply retrieve the expressions in order to express communicative intentions owing to their insufficient linguistic knowledge and experiences. Tomasello (2000a) provides very plausible explanation for their solving this obstacle. When learners do not have pre-stored expressions readily available, they select some of the linguistic schemas and items which they have already acquired and then ‘cut and paste’ the materials together as necessary (Tomasello, 2000a). In other words, learners attempt to combine words with the sentence configurations within the boundary of their linguistic knowledge to accomplish certain communicative intentions. Through the process of ‘usage-based syntactic operations’ (Tomasello, 2000a), cognitive mechanisms, including (over-) generalisation, abstraction, categorisation, and other analogical processes, are actively manifested.

This is why the examples in Table 4.8 can be understood as creative usages, not just simple errors. For instance, sentences (12) to (15) reveal that the learners tried to combine verbs that they had already known with certain constructions they were familiar with in order to satisfy communicative intentions. Sometimes, if the learners needed to express dative semantics, they simply borrowed the form of ditransitive constructions and added verbs that denoted the exact actions regarding their communicative intentions, such as (16) and (17). Although there exist individual variations in terms of accessing the target language system and activating cognitive mechanisms, it is difficult to escape the conclusion that the participants apparently used their (non-)linguistic resources as much as possible to meet their communicative intentions.

CHAPTER 5.

CONCLUDING REMARKS

5.1. Summary of Major Findings

The present study has examined the frequency-based instruction effects of ASCs and BVs on Korean middle school English learners, observing their developmental aspects within the frame of usage-based language acquisition. Specifically, this study ostensibly focused on the two research questions: 1) developmental patterns during the comprehension and production of ASCs and BVs, and 2) different degrees of ASCs accessibility accompanied by learners' cognitive mechanism activation. For this purpose, this study adopted three types of tasks (e.g., the grammaticality preference task, the free writing task, and the topic-given writing task) to diagnose learners' change or improvement in their understanding and utilisation of ASCs and BVs after the instruction period.

In a nutshell, one of the major findings of this study is that the instruction effect had an impact on learners' linguistic behaviour. The learners generally improved their understanding and production of the target ASCs and BVs after the instruction. Learners' individual developmental aspects, however, were much varied. To illustrate, the learners used two-argument ASCs far more frequently than three-argument ASCs, which showed the internal complexity among ASCs and the relative difficulty in gaining access to the language system. Also, most of the

learners received the target BV and its corresponding ASC as a single input unit and produced the combination repeatedly throughout the writing tasks. This reflects the power of input frequency based on meaning closeness between the target ASCs and the target BVs, suggesting the possibility of ASC-BV sets as a stepping-stone material to satisfy communicative intentions at the beginning stage of language acquisition.

The present study was the first attempt to investigate and yield supportive evidence for Korean EFL learners' item-based piecemeal learning from the perspective of usage-based language acquisition. The learners frequently used pre-made chunks based on particular exemplars that they received to lessen the processing burden. Once they accumulated sufficient experience of the target items, they started to specify their linguistic knowledge and attempted to apply what they had already known to new items to express communicative intentions. During this process, they either combined simple transitive constructions with a prepositional phrase or simply put a verb in the sentence pattern, which, being stored in their mental grammar, denoted what they want to express in a specific scene. The process is in good agreement with the core idea of usage-based language acquisition, which actively involves cognitive mechanisms such as (over-)generalisation, abstraction, analogy, and categorisation. In sum, after abiding by a lexically specific stage for a certain period of time, learners' utilisation of cognitive mechanisms tends to tune their overall language processing.

5.2. Limitations of This Study and Suggestions for Further Study

Although this study verified many diverse aspects of instruction effect of ASC-BV sets and developmental patterns in relation to item-based piecemeal learning, there are several possible limitations and areas for further studies that remain to be explored. First, the number of participants was quite small and their age/gender range was limited, which makes it somewhat difficult to make a complete report of the generalised implications encompassing a wide range of language acquisition situations. In that sense, further works need to be done regarding the effect of ASC-BV learning on various types of learners who have diverse levels of language proficiency, including primary and tertiary²⁸ levels.

Second, the order of ASC presentation would also be one of the crucial factors affecting overall learning. Hence, this study may not provide a comprehensive view of ASC acquisition because the experiment adopted a specific sequence of ASCs based on the inheritance hierarchy and internal similarity among the target configurations. In line with the presentation order of ASCs, investigating learners' cognitive pruning and its consequence towards acquiring the target language system is another attractive research topic.²⁹

Lastly, the types of verbs provided to the participants were intentionally limited,

²⁸ Shin (2012) attempted to verify the instruction effect of ASC-BV sets on Korean adult learners of English. See Shin (2012) for more details on the experiment and the pedagogical implications.

²⁹ It was found that, although the phenomenon was marginal to this study, some of the participant (e.g., A, C, D, I, and N) produced ditransitive or caused-motion constructions in the main test then the two configurations disappeared or simultaneously the number of times that the learners used intransitive-motion or intransitive-resultative constructions slightly increased in the post- and delayed post-test.

and the strict manipulation of the verb input may have influenced the performance of the participants. Therefore, reconsidering the status of BVs as a facilitator in language acquisition would be an interesting area. In this study the learners improved their ASC comprehension after the instruction through the grammaticality preference task which included novel verbs; previous studies such as Casenhiser and Goldberg (2005) and Goldberg, Casenhiser, and White (2007) also used novel verbs, asserting the positive effect of the fast mapping between structural forms and semantic features without BVs. It will be a meaningful to contemplate the issue in an attempt to develop more adequate input material specifically for use in in EFL situations.

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APPENDICES

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APPENDIX 1. Sample Lesson Plan and Materials

Lesson Plan: 3rd class, "Planning"

Objectives:

- ① Students will be able to be familiar with the use of GIVE as a main verb.
- ② Students will be able to understand the basic features of ditransitive constructions.
- ③ Students will be able to make plans in accordance to a schedule.

Materials:

ppt file (3rd.pptx), worksheet (3rd.docx), computer, Microsoft Powerpoint program (ver. 2007), screen & beam projector

Class organization:

	stage	time (min.)	content
	Warm-up	5'	greeting & introduction; attracting the learners' attention & interest
	target BV	10'	GIVE
Elicitation	target ASC	5'	Ditransitive construction(1): Basic features
	semi-open	5'	"Fill in the blank with the pictures" GET, TELL, SHOW, BRING
	Writing task	15'	"Planning"

Procedure:

Warm-up (5')

1. Exchange greetings each other.
2. T introduces today's class with the timetable.

Elicitation - target BV (10')

1. T gives the Ss a picture, and ask them to try to describe the situation.
2. T presents the answer to the Ss, and let them read it together loudly.
3. Repeat the process 4 times.

Elicitation - target ASC (5')

1. After 4 pictures and sentences, T gives the Ss all the sentences in a slide.
2. Let the Ss guess the common characteristics among the sentences.
3. T explains the basic meanings and features of ditransitive constructions.

Elicitation - semi-open (5')

1. T shows the Ss a box including GET, TELL, SHOW, and BRING and several pictures.
2. Let the Ss fill in the blank (i.e. verb) in accordance to the translations, and check the answers.
3. After that, T gives two-blank questions, let the Ss fill in the blanks, and check the answers.

Writing task (15')

1. T explains the activity to the Ss.
(calender; a lot of 'birthdays' & 'anniversary's; what is your plan? how do you prepare?)
2. T gives the Ss 15 minutes to write down.

Welcome to the Writing Class!

20101004(Mon.), 3rd class

Today's Timetable

stage	time (min.)	content	
Warm-up	5'	Greeting & introduction; Attracting your attention & interest	
Elicitation	Target BV	10'	GIVE
	Target ASC	5'	Ditransitive construction(1): Basic features
	Semi-open	5'	"Fill in the blank with the pictures" GET, TELL, SHOW, BRING
Writing task	15'	"Planning"	

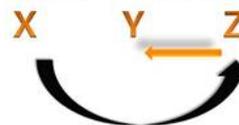


Ditransitive constructions

- I give the man a present.
- I give Meg a cup of water.
- I give the woman a flower.
- I give Chris a speeding ticket.

Ditransitive constructions

- I give the man a present.



X causes Y to receive Z

'giving'

APPENDIX 2. Samples of Each Task

Grammaticality Preference

- a picture, then 8 options
- nonsense verbs exist!
- Choose the most appropriate option that best describes the situation
 - If you think that there is no answer, just choose 'h. none of the options'
- 30 items (total) * 30 sec. (per 1 item)
= 15 min. (due)

3



- Jack doaks.
- Jack doaks the lotion.
- Jack doaks Mary the lotion.
- Jack doaks the lotion on his hands.
- Jack doaks the lotion happy.
- Jack doaks on his hands.
- Jack doaks happy.
- none of the above

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- Roy pells.
- Roy pells Mack.
- Roy pells Mack feet.
- Roy pells Mack to the sky.
- Roy pells Mack black and blue.
- Roy pells to the sky.
- Roy pells black and blue.
- none of the above

Your NAME, please! ()

1. a b c d e f g h
2. a b c d e f g h
3. a b c d e f g h
4. a b c d e f g h
5. a b c d e f g h
6. a b c d e f g h
7. a b c d e f g h
8. a b c d e f g h
9. a b c d e f g h
10. a b c d e f g h
11. a b c d e f g h
12. a b c d e f g h
13. a b c d e f g h
14. a b c d e f g h
15. a b c d e f g h
16. a b c d e f g h
17. a b c d e f g h
18. a b c d e f g h
19. a b c d e f g h
20. a b c d e f g h
21. a b c d e f g h
22. a b c d e f g h
23. a b c d e f g h
24. a b c d e f g h
25. a b c d e f g h
26. a b c d e f g h
27. a b c d e f g h
28. a b c d e f g h
29. a b c d e f g h
30. a b c d e f g h

Make your own story!

- some pictures; make a story
- can use the words presented below
- as lengthy and detailed as you can
- 20 minutes

do, give, put, go, make, become



국 문 초 록

본 연구는 한국인 중학생 영어학습자를 대상으로 논항구조구문과 기본동사의 교수효과에 대한 검증을 목적으로 한다. 이를 위한 실험은, 언어습득의 실제적인 (심리)언어학적 수단으로 여겨지는 논항구조구문과 기본동사의 발달상 상호연관성과 입력빈도 효과를 기반으로 실시되었다. 6주간의 교수 후 이해와 발화 측면에서 학습자들의 발전이 감지되었다. 흥미롭게도, 그들의 작문 자료로부터 목표구문의 생산에 있어 편향성과 변동성이 확인되었고 이는 곧 목표구문에 대한 학습자의 상대적 접근성을 보여주었다. 위의 현상들은 문장구조와 동사의 관점에서 재분석되었고, 이를 통해 학습자들이 의사소통적 목적을 달성하기 위해 언어체계에 접근하고 그들의 (비)언어적 지식을 최대한 활용하려는 노력이 확인되었다. 결과적으로, 인지적 기제의 활성화를 동반한 목표 언어 체계의 단편적 항목 학습과 연관된 학습자들의 수행 양태는 용례기반 언어습득의 핵심적 단면을 입증할 뿐만 아니라 구문-동사 조합이 언어학습 초기 단계에서 강력한 출발점으로서 기능할 수 있음을 시사한다.

주요어: 논항구조구문, 기본동사, 입력빈도, 구문문법, 인지언어학

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2005년 학부생으로 처음 서울대학교에 입학해 이 곳을 보금자리로 삼은 이후, 대학원을 거쳐 벌써 햇수로 8년이라는 시간이 흘렀습니다. 물론 석사과정 중간에 군복무 2년 반이 끼어있긴 했지만, 몸이 멀리 있어도 마음은 늘 학교와 함께 하고 있었습니다. 그리고 오늘, 저는 석사과정을 마무리하며 작은 매듭 하나를 완성시켰습니다. 이 논문에 실린 연구나 합의가 완전무결한 것이 아닐 수도 있을뿐더러, 고작 석사학위 하나를 겨우 따 낸 것에 불과할 지도 모르지만, 저는 적어도 공부하던 지난 시간 동안 스스로에게 부끄럽지 않을 만큼 그 누구보다 치열하고 진지하게 매 순간 임했다고 자부합니다. 그래서, 어쩌면 공식적으로 제 마지막 학문적 결과물일지도 모를 이 논문 뒤편에 덧붙여, 제게 유의미한 영향력을 주신 고마운 많은 분들께 감사의 글을 남기기로 하였습니다.

지도교수 양현권 선생님, 제 부족함이 선생님을 채워드리지 못하는 듯 느껴져 항상 송구스럽습니다. 공부만이 답일 줄 알았던 저에게 스스로를 돌아볼 시간과, 그리하여 여태까지 공부해온 것만큼 잘 할 수 있겠다고 생각되는 삶의 방향들을 찾을 수 있는 기회를 제공해 주셔서 감사합니다. 이웃과 사회를 항상 염두에 두고, 제가 바르게 쓰일 수 있도록 정진하겠습니다. 심사위원 안현기 선생님, 학부수업 때 남성의 일반적인 행동특성을 우스갯소리로 설명해주시다 "규호 저 아이는 아마 안 그럴거야" 하며 장난쳐 주시던 기억이 생생합니다. 선생님께서 스치듯 해주시는 한두 마디의 격려와, 때로는 예리한 삶의 조언들이 저에게 진정으로 큰 힘이 됩니다. 너무 늦지 않게 불쑥 찾아뵈테니, 그 때까지 더욱 건강해지시길

소망합니다. 심사위원 심창용 선생님, 저는 선생님 수업을 수강할 때면 마치 날아다닐 것만 같은 즐거운 기분과 겸허해지는 묵직함을 동시에 느끼곤 합니다. 2005년 전공탐색과목 공부 중 언어체계에 대한 질문이 있어 사전약속 없이 선생님을 뵈러 연구실에 갔었는데, 곳은 날씨에도 자리를 지키시고 정자세로 공부를 하시던 모습에 저 스스로를 많이 반성하게 되었습니다. 성실하고 진지한 자세로 살아가겠습니다. 감사합니다.

영어교육과는 저에게 제 3의 고향과 같습니다. 제가 우리 학과에 많은 애정을 갖게 된 데에는 다방면으로 훌륭하신 학과의 선생님들께서 계셨던 연유가 큼니다. 제 이름을 외워주시며 항상 먼저 악수를 청해주시던 김길중 선생님, 문학적 소양이 상당히 부족했던 저를 매 수업시간마다 눈빛으로 이끌어주셨던 신문수 선생님, 학군단 행사로 저녁도 먹지 못한 채 중간고사 시험장에 들어선 제가 안쓰러우셨던지 시험 종료 후 저녁을 함께 해 주시던 권오량 선생님이자 학군장교 선배님, 제대 이후 앞으로의 삶과 진로에 대한 제 깊은 고민과 방황을 어느새 들여다보시고 먼저 손 내밀어주시던 김진완 선생님, 과 행사 어딜 가든 제가 있다며 신기함 반 웃음 반으로 저를 바라봐주시던 이병민 선생님, 수시면접 때 제 모습을 아직도 기억해주시던 오선영 선생님, 눈물나게 감사합니다. 선생님들의 모습 하나하나를 절대 잊지 않겠습니다.

공부를 하면서 개인적인 인연으로 많은 선생님들을 알게 되었다는 점 또한 제겐 행운입니다. 하와이에 계신 유재호 선생님, 매번 신세만 지고 있습니다. 앞으로 더욱 자주 찾아뵙 여건이 되었으니, 한식당에서 제게 쥐어주셨던 용돈 값 제대로 하겠습니다. 박명수 선생님, 제 의지와 꿈에 대해 그 누구보다 지지해주셔서 정말 감사합니다. 제가 선생님께 여유를

드릴 수 있는 사람이었으면 합니다. 정현숙 선생님, 비록 계속 공부하길 바라셨던 선생님 기대에 부응하진 못했지만, 어디에서건 어떤 형태로건 제 분야에 대한 끈을 놓지 않겠습니다. 학회장에서 마주칠 때마다 제게 밝은 미소를 주시던 김영우 선생님, 군복무 기간 학회장에 기웃거리던 제게 호통을 치시며 현업에 충실할 것을 강조하셨던 김태영 선생님, 하와이에서 뵈 이후 지금까지도 저를 반갑게 맞이해 주시는 이진화 선생님, 한국교원대 학술대회 발표장에서 먼저 알아봐 주시던 이상기 선생님, 모두 진심으로 감사하다는 말씀을 드립니다.

저는 정말 복덩이입니다. 많은 선후배님들과 동기들, 친구들이 저와 함께 기꺼이 시간을 공유해 주었습니다. 그 누구보다도 저의 가장 든든한 지원자이자 동료이자 선배이자 가족과도 같은, 우리 Young Spirit 백정완 선생님과 김지영 선생님께 진심을 담아 고맙다는 말을 드립니다. 대학원에 복학했던 저를 '보랏빛 머리의, 좀 놀게 생긴 학부생'으로 보시다 이내 곧 친누나처럼 제게 많은 에너지를 주셨던 연구실 메이트 신윤아 선생님과, 힘든 시기를 무사히 넘기고 유학길에 성공적으로 오른 김여진 선생님, 시간이 흐른 뒤 다시 한 번 뭉쳐서 밥 한끼 했으면 합니다. 학업에서건 개인사이건 늘 지지와 격려를 아끼지 않았던 나양온 선생님과, 시공간에 구애 받지 않고 서로의 분야에 대한 아이디어와 고민들을 허심탄회하게 주고받을 수 있는 장을 마련해주셨던 김현우 선생님께도 감사의 인사를 드립니다. 그 외에도 저와 인연이 닿으셨던 모든 대학원 식구 분들께, 저보다 훨씬 더 뛰어난 학문적 성과를 내어 주실 것을 먼 발치에서나마 응원하겠습니다. 조금은 독특한 인연인 전미연 선생님, 만날 때마다 제가 툭툭대고 까칠하게 대하지만, 사실 그것은 제가 가지고 있는 미안함을

가리기 위한 것임을 알아주길 바랍니다. 더불어 희노애락을 함께 했던 저의 초중고 동창 부산사나이 박근태 군과, 20대 청춘의 한 자락을 함께 장식해 준 해양경찰 이동욱 군에게도 고마움을 전합니다. 저와 인연이 닿았던 모든 분들께 더욱 멋진 삶이 펼쳐질 것임을 기대해봅니다.

감사합니다, 서울대학교. 제게 역량을 쌓고 발휘할 많은 기회들을 제공해주셔서. 어디에서든 우리 학교의 명예에 누가 되는 일은 하지 않겠습니다. First Penguin의 마음가짐으로, 아름다운 사람이 되어 멋지게 비상하겠습니다.

2013년 2월 1일

신 규 호 올림