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Measuring the Effects of Intensive Instruction on the Rules of Adjective Order in English Noun Phrases for Japanese EFL Students

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Running Head: Intensive Instruction in Adjective Order

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Abstract

Whereas the order of adjectives is completely free in Japanese, this is not the case with English. Japanese EFL (English as a Foreign Language) students at the university level experience great difficulty in identifying and producing noun phrases with correct adjective order in English. This study examined the effect that a brief period of intensive instruction on the rules of adjective ordering would have in improving student ability to correctly produce descriptive phrases. An adjective ordering task for noun phrases was administered both before and after the lesson to determine the extent that 81 Japanese students could correctly arrange three adjectives. The difference in average pre- and post-test scores showed dramatic improvement which was directly attributed to brief intensive instruction, underscoring its practical value in current pedagogical applications. However, neither previous awareness of, nor formal learning experience in English adjective ordering had an effect on improvement in EFL student ability to order adjectives.

Keywords: order of adjectives, judgment task, short and long distance disordering

Introduction

A consistent yet often overlooked source of frustration for Japanese EFL (English as a Foreign Language) students is the correct adjective order in noun phrases. Whereas the order of adjectives is completely free in Japanese, this is not the case with English. For instance, the English expression, ‘an expensive black Italian bag’ can be written in Japanese as *kookana kuroi Italia-no bakku*. This noun phrase can also be re-ordered in five other correct ways, *kuroi kookana Italia-no bakku* (‘a black expensive Italian bag’), *kuroi Italia-no kookana bakku* (‘a black Italian expensive bag’), *Italia-no kookana kuroi bakku* (‘an Italian expensive black bag’), *Italia-no kuri kookana bakku* (‘an Italian black expensive bag’) and *kuri Italia-no kookana bakku* (‘a black Italian expensive bag’). However, none of these five expressions is correct in English. The absence of a determined order of adjectives in their native language may cause Japanese students to experience difficulty in identifying and producing noun phrases with correct adjective order in English. In turn, student inability contributes to a hesitance to experiment with more complex and therefore more expressive sentences. Simplistic, or ‘awkward-but-understandable’ sentences and expressions (e.g., “the brown paper plain

bag”), are the all-too frequent result of this lack of confidence. While such incorrect expressions may suffice to convey the basic point the speaker is trying to make, they are nevertheless incorrect from a grammatical point of view. As such, the issue of correct adjective order is no less important in composing correct and natural sounding English than other semantic or grammatical errors (e.g., subject-verb disagreement) upon which instructors generally focus.

It takes a great deal of practice with and exposure to a foreign language before students can confidently express themselves using what often seem, at least initially, to be arbitrary rules and constructions. The daunting task of English language teachers in Japanese classrooms is to promote students’ ability to do so in one of the most homogeneously *non-English* speaking environments in the world. Surprisingly, while there are a host of formal guidelines, reference materials and practice exercises available in both print and electronic media, rules as to the correct order of adjectives in noun phrases are not a formal component of Japanese junior or high school English curricula.

Meerman and Tamaoka (2006) found that the extent of disorder among adjectives in noun phrases determines the ability of university-level EFL students to correctly interpret a phrase as being either correct or incorrect. This 2006 experiment focused on student ability to *passively identify* rather than produce noun phrases with correct adjective order, and raised the question as to whether the ability to create such phrases could be successfully taught through existing classroom approaches. The present study takes up this question, by focusing less on cognitive processing and more on the pedagogical potential of intensive instruction. It explores the question as to whether or not the ability to correctly order adjectives preceding a noun – inherently an instinctive, semantic task – can practically be taught as a component of existing EFL curricula.

The intentions of the present study were two-fold. First, the current ability that Japanese university students of EFL have to recognize and produce English noun phrases exhibiting correct adjective order was assessed. This was done using noun phrase adjective arrangement tasks, which required students to correctly re-order a selection of disordered adjectives preceding a noun which they were intended to describe. Second, this study aimed to determine the effect that intensive instruction on the rules of adjective ordering would have in improving student ability to correctly identify and produce more complex descriptive sentences. This study therefore attempted to gauge the success with which a seemingly intuitive ability can be taught and learned as a practical skill.

Order of Adjectives in English Noun Phrases

Native English speakers consistently exhibit a seemingly innate ability to identify or produce noun phrases with correct adjective order. Few, if asked, will attribute their ability to do so to formal instruction, let alone be able to recall if and when they received such formal instruction in their own schooling experiences. Ordering adjectives instantaneously and correctly seems to necessitate intuitive, semantic reasoning rather than the ability to recall grammatical rules. Rules governing adjective order can be taught and memorized, but not often convincingly explained or understood; it is near impossible to convincingly explain to learners of the language *why* “big black bear” makes more sense than “black big bear”, especially among those whose native language does not require such a semantic adjective order.

The difficulty inherent in both imparting and grasping this concept is almost certainly a reason why detailed instruction in adjective order is often forgone, particularly when longer and more complex descriptors come into play.

There is a small degree of discrepancy among grammarians as to what constitutes the ‘canonical’ pattern of adjective order (for three examples of popular reference works offering differing views on adjective order, see Morenberg, 2002; Swan, 1995; Thomson & Martinet, 1986). The purpose of the present study was not to debate the particularities or merits of any given grammatical guideline; in any case, the fundamental order of adjectives is agreed upon by most authors. Rather, the present experiment sought to examine the potential of intensive instruction in one which could be readily adapted for use in classroom settings at the university level. The order of adjectives suggested by Swan (1995) was used for both experiment and discussion purposes and served as the basis for the handout to the EFL students who participated in the present experiment (see Table 1).

Insert Table 1 about here

Adjectives usually appear in direct succession, in a set order according to category as follows: 1) determiner (e.g., *a, an, the*); 2) general or subjective observation (e.g., *friendly, nice*); 3) physical description (descriptions of size, shape, age and color, in that order); 4) origin (e.g., *American, Swedish*); 5) material (e.g., *paper, plastic*) and 6) qualifier (e.g., *camping, hunting*). Numbers usually go before adjectives and replace determiners. *First, next* and *last* most often go before *one, two, three*, etc. It is very

unlikely that anyone would use more than two or three adjectives in a noun phrase, save for in cases of emphatic verbal expression.

The Intensive Lesson for Teaching Correct Adjective Order

This experiment considered the extent to which student understanding of adjective order in noun phrases may be improved through a period of intensive instruction. Essentially, the experiment consisted of a pre-test, a short lesson, and a post-test. The pre-test examined understanding of adjective order prior to instruction; it can be understood as having effectively measured the general abilities of present-day Japanese university EFL students to correctly describe something in detail (i.e., to correctly use more than one adjective prior to a noun). The difference between pre- and post-test scores was interpreted as being indicative of improved understanding resulting directly from the brief instructional period. Noun phrases items in the pre- and post-test were different than those used in the intensive lesson.

By the end of the lesson, students were expected to be able to produce (both orally and in writing) descriptive noun phrases which exhibited the correct order of adjectives. Actual classroom materials required for the lesson included 3-4 large pictures, 2-3 small, everyday objects and a one-page handout containing a chart with rules and sample phrases modeling correct adjectives order. An outline of the particular approach taken in the six-step, 70-minute intensive lesson plan is provided below.

1) Warm Up and Introduction (7-10 minutes)

Students were asked to call out adjectives beginning with the letters of the alphabet from the letters a through z (active, beautiful, creative, etc.). This can also be done with nouns (e.g., things they saw on the way to school).

2) Introduction of topic (7-10 minutes)

The instructor introduced actual items for students to describe. The names of these items were written on the blackboard, and students prompted to describe it using as many suitable adjectives as possible. The instructor wrote these on the board as they were called out, placing increasing numbers of adjectives before the noun in the order suggested by each responding student, to produce long (and awkward) sentences on the board. Students were asked to vote if all, some or none of the sentences were correct, yet left in anticipation of the answer.

3) Pre-Test (12-15 minutes)

The pre-test was administered with students being told they had as much time as necessary to complete the task (this did not exceed 13 minutes). Sample questions of

noun phrases are shown in Figure 1 (see all 21 items listed in Table 3).

Insert Figure 1 about here

4) Intensive instruction (12-15 minutes)

Students were given a handout (see Table 1) with a rule chart and sample phrases modeling correct adjective order. After the categories were explained, students were asked in turn to read the sample phrases written on the handout (with pronunciation tips are given when necessary). Looking at their handouts, students were asked to re-consider the correctness of the two sentences which were written on the board earlier.

5) Whole-group practice (5-7 minutes)

With the rules governing adjective order in front of them, individual students considered three or four photos of different items (see example, Figure 2) and repeated the introductory activity, being coached to correctly describe people, places and things being shown to them. Choral repetition followed each correctly ordered suggestion.

Insert Figure 2 about here (bike)

6) Post Test (10-12 minutes)

Same as an example in Figure 1, but with items presented in different sequential order.

Method

Participants

Participants comprised 81 undergraduate students (50 females and 31 males) at Hiroshima Shudo University, located in Hiroshima City, Japan. All were native speakers of Japanese, with ages ranging from 23 years and 1 month to 18 years and 1 month. The average age was 19 years and 3 months with a standard deviation of 10 months on the respective day of testing. Two additional questions are asked to these participants regarding (1) whether they have known existence of adjective order, and (2) whether they have learned adjective order at school. Based on responses to these two questions, 81 participants were divided into three groups: 24 participants who have been aware and have learned adjective order, 28 participants who have been aware but have not learned adjective order, and 29 participants who have neither been aware nor learned adjective

order. There were no participants responded that they have learned but not been aware of adjective order (this category is illogical). These three groups were compared by using an analysis of variance (ANOVA) on acquisition scores of adjective order.

Materials

A paper-and-pencil test comprising a total of 21 noun phrases (see details in Table 3) including three adjectives was used to determine whether Japanese EFL students could correctly arrange three adjectives based on the rule. To examine the effect of the short lesson on adjective order given to these EFL students, test items were used twice (before and after the lesson), with the items randomly arranged in the two pre- and post-tests. To mix three adjectives, three incorrect orders were used in the pre- and post-test. For example, *the handsome slender Egyptian man* was incorrectly ordered three ways: (1) short-distance mixing, as in *the handsome Egyptian slender man*, (2) long-distance mixing, as in *the Egyptian handsome slender man*, and (3) short- and long-distance mixing, as in *the Egyptian slender handsome man*. Each of the 21 phrases was rearranged based on one of these three mixing orders. The noun phrase article was kept as *the*, and nouns were located at the end of all items.

Data Gathering Procedure

The pre-test was given prior to the short intensive lesson on adjective order. After the lesson, the same test with re-arranged adjective phrases was given to the same participants. Tests items were different from those used in the instruction period. A correct answer to each phrase with three adjectives for the pre- and post-tests was scored as '1', so that the test scores ranged from 0 to 21 points with an equal interval of 1. Differences in test scores between the pre- and post-tests were considered as improvement directly resulting from the intensive lesson. One practice example was given to the participants prior to the commencement of actual testing.

Analysis and Results

The means and standard deviations of the pre- and post-tests among three groups are presented in Table 2 and visually presented in Figure 3. A 3 (EFL students' knowledge conditions) X 2 (pre- and post-test conditions) two-way analysis of variance (ANOVA) with the last variable repeated was conducted on test scores of 81 participants. The results indicated a significant main effect of the pre- and post-tests [$F(1,78)=297.48$, $p<.001$], but no significance main effect of three groups [$F(2,78)=0.210$, *n.s.*].

Interaction of these two variables was not significant [$F(2,78)=1.202, n.s.$]. Thus, results suggested a significant improvement of 8.10 points between the scores of the pre-test (M=6.67) and post test (M=14.77) regardless of EFL students of awareness and learning experience on English adjective order.

Insert Table 2 about here

Insert Figure 3 about here

In order to further examine accuracies in correctness decisions for each noun phrase, 21 correct phrases were rearranged in descending order based on improved scores as shown in Table 3. The Pearson's correlation coefficient of 21 test items between the pre- and post- tests was not high ($r=.174, n.s.$), suggesting no clear relations in the test scores between the pre- and post-tests, although improvement proved to be greatly significant. All 21 test items were plotted (using nouns of the phrases) on the basis of the scores of the pre- and post-tests as depicted in Figure 4. Items above the diagonal line in Figure 4 indicate positively improved scores, of which there were 20.

Insert Table 3 about here

Insert Figure 4 about here

While concrete generalizations cannot be based on the results of 21 noun phrase items alone, there are a few potential explanations to account for those that showed little improvement. In this experiment, a chi-square test of independence was conducted on each adjective phrase for numbers of correct/incorrect and pre-/post-test (a 2 X 2 matrix). For example, in the case of *young friendly Swedish woman*, 29 students answered correctly while 52 students responded incorrectly in the pre-test. In the post-test, 64 students answered correctly while 17 students answered incorrectly. A

chi-square test of independence yielded a chi-square value of 30.926 which is significant at the 0.001 level, suggesting excellent improvement after the intensive instruction. All results for chi-square tests of independence are shown in Table 3. Fifteen noun phrases were shown to be improved significantly at the 0.001 level of significance, which surpassed our highest expectations. On the other hand, four phrases showed no significant improvement. Only one item, indicated by 'scarf' (i.e., *the silk colorful thin scarf*) did not show a positive improvement (-3 points). The noun phrase for 'scarf', however, did not show any significant difference between the pre- and post-test scores according to a chi-square test of independence [$\chi^2(1)=0.294, n.s.$], indicating no difference in scores between the pre- and post-test.

Two items (*cute pink wool sweater* and *colorful thin silk scarf*) were poorly rearranged on both pre- and post-tests, with their pre- and post-test scores plotted much lower than others, as shown in Figure 4. In the case of these two phrases, it is not difficult to imagine how the adjectives 'pink' and 'cute' could be confused by participants, as in everyday use these two words are often used interchangeably (e.g., in product marketing). It is also understandable that 'colorful' could be misunderstood as an adjective of color rather than of subjective observation, not least because of the shared root word. With regards to the phrase, *heavy large metal desk*, it was by and large correctly rearranged on both tests, therefore leaving little room for improvement.

Discussion

A major difference between the present study and previous ones conducted on the adjective ordering theme (e.g., Meerman & Tamaoka, 2005, 2006) is the focus placed on correct *production*, rather than identification, of phrases containing more than one adjective. In determining the extent to which intensive instruction on the rules of adjective order can improve students' ability to correctly identify and produce more complex descriptive sentences, it is much more closely connected to pedagogical application than those previous studies.

Japanese university students continue to have little command of the rules outlining the correct usage of adjectives in English. Student performance on the pre-test showed an overwhelming and almost uniformly poor knowledge of adjective order regardless of the extent of previous awareness or learning experience, with average pre-test scores a mere 6.67 points out of a maximum 21 points. Instruction in proper adjective order is therefore clearly lacking in Japanese English lessons. An examination of several samples from commonly used senior high school textbook series (e.g., *Crown, Vista*,

Vivid and *New Horizon*) suffices to strongly support our claim that the issue of adjective ordering is not sufficiently addressed in high school textbooks approved for use in Japanese senior high schools. Texts devoted exclusively to grammar are, of course, available as supplementary resources to students to the extent that they seek them out. However, the use of such texts is often limited to preparation for university entrance examinations, and not common English curricula. Japanese students have either 1) received little or no prior instruction on this grammatical point, or 2) have somehow, somewhere been exposed to such instruction, yet have not retained it for effective use.

This experiment has shown that Japanese EFL students, at least at the university level, can grasp and employ the rules governing adjective order upon receiving a single intensive lesson. Post-test scores averaging 14.77 points (70.33% correctness ratio) indicated an overall improvement of 8.10 points from the 6.67 points (31.76% correctness ratio) on the pre-test. This improvement was even greater than had been anticipated, and shows that it is not impossible to teach the order of adjectives despite the difficulty inherent in producing such sentences for many Japanese English teachers.

Why, then, is adjective order almost completely neglected in Japanese senior high school English curricula, when this necessary point of semantic adjective order can so easily and quickly be taught? The goal of each learner presumably and ideally being to achieve fluency, the order of adjectives in noun phrases deserves just as much attention for non-native learners as any other semantic or grammatical rule. While students might somehow be able to communicate any given point, disordered adjective placement results in cumbersome expressions which are not only incorrect, but also place greater responsibility on the listener to ensure smooth communication.

Questions remain as to whether or not retention of rules learned as a result of the intensive lesson can be demonstrated in the long term (remembering that almost a third of participants in the present study indicated having previous awareness and instruction in adjective ordering), and how students can be encouraged to *internalize* and *spontaneously produce* (rather than arrange) correctly ordered adjectives. One approach to investigating these questions would include conducting the same test at some point in the future with the same students. A further, and perhaps better alternative given the logistical difficulties inherent in achieving the same group of participants for a longitudinal study, would be to conduct one or two intensive lessons, involving more inductive as well as deductive approaches to instruction. This study employed intensive instruction based on *deductive* methods, which may result in a stronger ability to produce more complex and expressive sentences on written assignments and hence may be the most significant result of this form of intensive instruction in adjective order.

Given the remarkably positive results of this exercise, the next step would be to conduct similar intensive experiments based on a more *inductive* approach. The link between inductive instruction and long term retention has been discussed at length elsewhere (e.g., Herron & Tomasello, 1992). It may furthermore foster students' ability to internalize their learning, ideally to respond with intuitive semantic judgment rather than mechanical grammatical recall. Finally, future research might look at measuring improvement in oral competence in the same way we tested for reading recognition skills.

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Table 1 The Order of Adjectives

Determiner (How many?)	Observation (Opinion)	Physical Description (What does it look like?)			Origin (Where from?)	Material (What of?)	Qualifier (What for?)	Noun
		Size	Shape	Age				
a	beautiful			old	British		touring	car
an	expensive			antique		silver		mirror
four	gorgeous		long		red	silk		dresses
her			short		black			hair
our		big		old	English			sheepdog
those			square			wooden	hat	boxes
several		enormous		young	American		football	players
some	delicious				Thai			food

Table 2 Means and Standard Deviations of Adjective Order Pre- and Post-test Scores

Knowledge Condition	Participants	Pre-test scores		Post-test scores		Improvement
		Mean	SD	Mean	SD	
Aware and learned	24	6.25	3.25	15.25	3.90	Δ 9.00
Aware but not learned	28	6.82	3.91	15.07	3.16	Δ 8.25
Neither aware nor learned	29	6.86	3.54	14.07	3.35	Δ 7.21
Total	81	6.67	3.56	14.77	3.46	Δ 8.10

Note: The maximum score of pre- and post-tests is 21.

1	the	<u>(1) serious</u>	<u>(2) French</u>	<u>(3) middle-aged</u>	teacher
2	the	<u>(1) curved</u>	<u>(2) steel</u>	<u>(3) sharp</u>	knife
3	the	<u>(1) metal</u>	<u>(2) large</u>	<u>(3) heavy</u>	desk
4	the	<u>(1) scary</u>	<u>(2) Russian</u>	<u>(3) tall</u>	actor
5	the	<u>(1) small</u>	<u>(2) Italian</u>	<u>(3) expensive</u>	shoes

Figure 1 Sample questions from the adjective arrangement task



Figure 2 Sample Photo for Intensive Lesson on Adjective Order

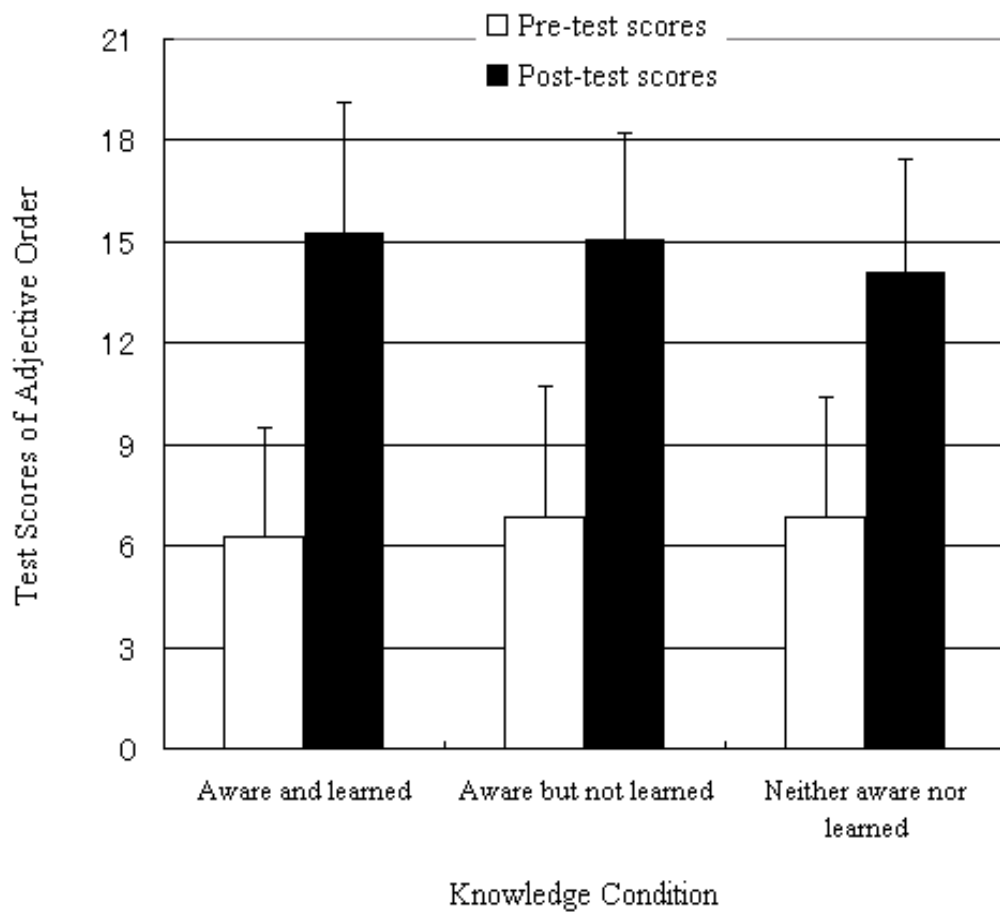


Figure 3 Pre- and Post-test scores as a function of knowledge conditions
Note : Upper-level bar extensions indicate standard deviations.

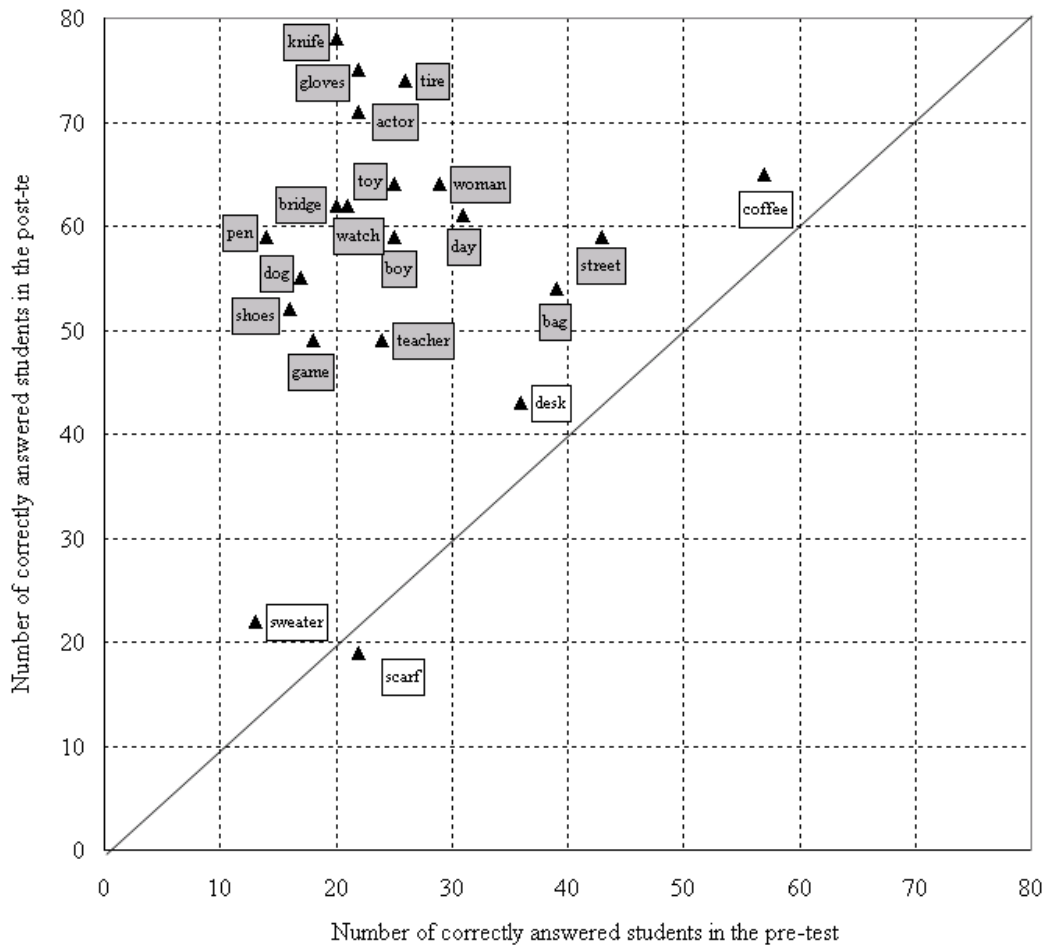


Figure 4 Plots of numbers of correctly answered students in the pre- and post-tests

Note 1 : A maximum number is 31 in both the pre- and post-tests.

Note 2 : Shaded items indicate significant score improvement as examined by the Chi-square test of independence.