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ABSTRACT
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Results obtained from the three methods should then be very similar.
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Free Composition, Translation, and Picture Description.

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Three methods for L2 data collection are compared: free composition, picture description and translation. The comparison is based on percentage of errors in a grammatical category, and in a source category. Most results obtained from the free compositions and picture descriptions tended to be similar. Greater variation was found for some error categories between these two tasks, and the translation task. Analysis of the errors suggests that differences in results could be reduced through slight adjustments in the method of data analysis, and a variation of the translation task. Results obtained from the three methods should then be very similar.

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Introduction.

Several methods have been used, and suggested for the collection of L2 data. A common method is the use of pictorial cues to elicit speech samples (Dulay and Burt 1974, Politzer 1973, Cohen 1974, Scott and Tucker 1974, Bertkau 1974, Bailey, Madden, and Krashen 1974, Cook 1973). Swain, Dumas, and Naiman (1974) propose elicited translation and imitation as methods for data collection. Larsen (1975) also proposes elicited imitation; and it has been used by Hamayan, Saegert, and Larudee (1975). Spontaneous speech has been used for data by Hakuta (1974); Cancino, Rosansky, and Schumann (1974); Valette (1964); Hatch (1974). The written language has been assessed by collecting data through compositions or letter writing (Yap Soon Hock 1973, Corder 1972, Dušková 1969,

Lambert and Tucker 1974, LoCoco 1975). Cloze tests have been used by Oller, Irvine, and Atai (, and Khampang Phon (1974).

All of the above methods are valid in their own right. However, researchers are aware of the fact that the method that has been used for the collection of data may have some influence on the results. The present study was carried out to discover how some of these methods influence the results, that is, how results vary when different methods of data collection are used. The methods tested were free composition, translation, and picture description. These methods were chosen, since it was felt that each one of them could reflect aspects of L2 acquisition not reflected by the other two methods.

Free composition, just as spontaneous speech has the disadvantage of requiring a great deal of data in order to be able to provide a fairly accurate description of the learner's grammar. In free composition, as well as in picture description, once the learner has developed alternative means of expression, he will tend to use them to avoid structures which appear difficult to him. On the other hand, the learner often attempts to use structures beyond his L2 knowledge which provide important information about his creative language acquisition process.

Picture description has the advantage that the researcher can provide pictorial cues in order to elicit a particular structure, and from which the learner could not easily depart. He may, however, provide the simplest structure which would satisfy the ob-

jective, or elaborate on it. While the researcher has some control of the obligatory occasions, the learner regulates the number of them.

In a translation task the researcher can zero in on specific syntactic rules which he would like to test. The investigator controls the number of obligatory occasions for error, whereas in free composition these are provided by the learner. When translation is used as a method for data collection it is assumed that the learner's comprehension of his native language is not a variable.

Method.

Subjects.

The subjects were 28 university students enrolled in an elementary Spanish course. All were native speakers of English.

Collection of data.

1. Free composition. Students were assigned a composition, the subject being of their choice. Suggested length was 15 handwritten lines. Subjects were allowed as much time as they felt was necessary. Composition examples are presented in appendix.

2. Translation. The translation task consisted of 12 sentences which included lexical items and syntactic structures which from class observation appeared to cause difficulty. For the most part these sentences were short; nevertheless some were of considerable difficulty, for example:

a. He has had to study very much.

b. I see it, it is pretty.

In sentence a. where the English auxiliary, and the verb denoting obligation derive from the same surface form: to have, Spanish requires two distinct forms. The auxiliary form is ha (from haber), and the participle is tenido (from tener). Further, tener in this context has to be followed by the conjunction que. This rule is absent in English.

In English the adverb "much" is modified by the adverb "very" to denote a high degree. In Spanish, mucho (much) does not accept the adverb muy (very); instead, the augmentative ísimo is required.

Sentence b. deals with the object pronoun position, and with the Spanish distinction of "it" the object pronoun, from "it" the subject pronoun. The object pronoun is overtly expressed. The subject pronoun has no overt form; it is implied in the person-number morpheme of the verb.

Examples of easier sentences are:

c. Did you give him his book?

The difficulty here consists of the position of the indirect object pronoun which in Spanish preceds the verb, and in English follows it.

d. They saw the children yesterday.

The Spanish sentence is parallel to the English one, except that the Spanish personal a has to precede the direct object.

None of these structures were new to the learners; the rules pertaining to them, as well as their application, had been taught in class. Further explanation of the translation task appears in the appendix.

3. <u>Picture description.</u> Subjects were given 16 pictures for which they had to provide an explanation. Pictures represented one or two persons involved in an activity: walking, entering a room, sitting down, talking to each other... The picture description, the same as the translation task, tried to elicit some structures of apparent difficulty. For some pictures a variety of captions could be given. In their case the provided sentences differed considerably in length and complexity. For example, a picture in which a man, obviously upset, shows a bill to a waitress was described in the following manner: (errors have been corrected)

a. Hay un error. (There is a mistake)

b. El hombre dice a la mujer que ella no tiene razón. (The man tells the woman that she is mistaken)

c. El hombre no está contento. (The man is unhappy)

d. Antes de pagar a la mesera preguntó una pregunta sobre la cuenta. (Before paying the waitress he asked a question about the bill)

e. El hombre recibe la cuenta. (The man receives the bill)

A more detailed explanation of the task is presented in the appendix.

The translation and picture description were assigned the day after the composition was assigned. It was estimated that the completion of each assignement would not exceed 15 minutes. However, learners were instructed that if they wished, they would be given additional time. Only two subjects requested a time extension.

Analysis of samples.

Samples were analyzed as to the errors they presented. Each
error was assigned to a grammatical and to a source category. In
the grammatical categorization when a word form of one category
was provided for that of another one, the error was counted as
belonging to the category which should have been provided. It is
not uncommon that when an adjective and an adverb, or a verb and a
noun have a similar surface form, confusion arises, and one form is
provided for the other one. For example, _bien_ (adverb) is provided
for _buen_ (adjective).

. If a mistake was made in the gender of a noun, and the deter-
miner and adjective agreed with the noun, only the noun error was
recorded. Certain errors involved a whole structure. Most fre-
quently they were word for word translations of an L1 structure.
Lexical items did not correspond to those of the intended L2 sen-
tence. These errors were labeled "whole expression errors". In
addition, a category of word order errors was provided. These
errors pertained to cases in which the appropriate lexical items
were provided, but the word order did not correspond to the L2
word order.

The source categorization that was followed was the same as
used previously by the investigator (LoCoco, 1975). A brief
description is provided here.

Errors are labeled interlingual, intralingual, dual, lack of
transfer, communicative, and overlap.

	L1	L2	in L2 (learner's language)
Interlingual	rule	no rule	L1 rule is applied

Ex.:

L1 rule: Present progressive can be used to express futurity.

L2 does not have this rule.

Learner's language: Está cantando mañana (He is singing tomorrow).

Intralingual	L1	L2	in L2
	no rule	rule	wrong L2 rule is applied

Ex.:

L1 does not have the rule.

L2 rule: Finite verbs are marked for person and number.

Learner's language: Yo canta, él canto (Verbs are marked, but with
the inappropriate morpheme).

	L1	L2	in L2
Dual	no rule	rule	no rule is applied

Ex.:

L1 does not have the rule.

L2 rule: direct object is preceded by a if it is a person.

Learner's language: Veo María (I see Mary; omission of personal a)

	L1	L2	in L2
Lack of transfer	rule	rule	no rule is applied

Ex.:

L1 rule: Use auxiliary in compound tenses.

L2 rule: Same as L1.

Learner's language: Ella visto (She seen)

Lack of transfer errors may also be:

	L1	L2	in L2

no. rule   no rule   A non-applicable rule is
applied

Ex.:

L1 does not have the rule.

L2 does not have the rule.

Learner's language: Ayer cantas ('The present tense is used to. express past).

Communicative. Learners attempt a form or structure not yet taught.

Overlap. Errors which can be related to two or more sources.

Analysis of data.

The scoring system applied to the grammatical categorization was the same as the one used by Dulay and Burt (1974): a correctly supplied form received a score of 2; an incorrect form a score of 1; and the absence of a form a score of zero. Dulay and Burt's system provides a percentage of correct forms. The lowest scores thus indicate the largest percentage of error. In order to have the highest score correspond to the largest percentage of error, an error score was obtained by subtracting the raw score from the obligatory score. The proportion of this error score to the obligatory score was calculated. For example:

Obligatory score: 876

Raw score   : 719

Errors score   : 157

$\frac{157}{876}$ x 100 = 17.9 (error percentage)

Obligatory occasions were counted only for the categories: verb, preposition, pronoun, adjective, and determiner. For the other categories (adverb, conjunction, noun, whole expression, word order) the number of errors is provided.

In the translation task the obligatory occasion were controlled by the researcher; in the picture description they were partially controlled; in the composition the investigator had no control. To portray the differences in obligatory occasions, the ranges, medians, and means of these are provided.

For the source categorization, for each method, errors in the categories were counted. The percentage of these in relation to the total number of errors was calculated. Categories were arranged in decreasing order of error percentage.

Results and discussion,

The raw scores, obligatory scores, error scores, error percentages, and number of errors for the grammatical categories are presented in the following tables.

TABLE 1

Translation task scores.

Category	Raw score	Obligatory score	Error score	Error %	Number of errors
Verb	1166	1232	66	5.4	61
Preposition	134	224	90	40.2	47
Pronoun	376	448	72	16.1	43
Adjective	108	112	4	3.6	5
Determiner	221	224	3	1.3	3
Adverb					2
Conjunction					10
Noun					4
Word order					9
Whole expression					21

TABLE 2

Picture description scores.

Verb	983	1078	95	8.8	77
Preposition	288	400	112	28.0	67
Pronoun	204	242	38	15.7	20
Adjective	89	100	11	11.0	12
Determiner	1101	1148	47	4.1	42
Adverb					5
Conjunction					2
Noun					22
Word order					4
Whole expression					3

TABLE 3

Free composition scores.

Category	Raw score	Obligatory score	Error score	Error %	Number of errors
Verb	915	1030	115	11.2	108
Preposition	517	588	71	12.1	43
Pronoun	189	216	27	12.5	21
Adjective	249	288	39	13.5	38
Determiner	694	760	66	8.7	48
Adverb					11
Conjunction					8
Noun					20
Word order					10
Whole expression					15

In first language acquisition, preceding the acquisition of new forms, the learner goes through a stage in which the correct form is sometimes supplied, and sometimes not. In second language acquisition it is not yet known if all learners acquire the language in an equal manner. L2 research indicates that some learners do in fact follow the same process. One can therefore, expect some variability in the results, even when data is collected by the same method; but such variability should be minor. The differences in percentages of errors for some categories, obtained for the tested methods are considerable and cannot be attributed

only to the learning process. Major differences occurred in the
preposition category in all three tasks: translation - 40.2%;
picture description - 28%; composition - 12.1%. In the adjective
category the error percentage was lower in the translation task
than in the other two tasks: 3.6% vs. 11% (picture description)
and 13.5% (composition). In the determiner category the transla-
tion task also had the lowest error percentage: 1.3%; in the
picture description it was 4.1%, and in the composition 8.7%. In
the verb category the error percentages difference was similar to
the determiner category difference: translation task - 5.4%; picture
description - 8.8%; composition - 11.2%.

The number of errors depends largely on the opportunity to
commit the error. Such opportunity often, but not necessarily
coincides with the obligatory occasions. Factors other than the
requirement of a given form influence its correct or incorrect
rendition, or its absence. For example, it has been found that
redundant verb forms lend themselves to being omitted. The copula,
and auxiliaries have a higher opportunity for error than main verbs,
although the obligatory occasions for both might be the same.
The English third person singular morpheme _s_ presents difficulties
for learners of English as the first language, and for learners
of English as a second language. In this case, the opportunity
for error, and the obligatory occasion appear to coincide. Another
factor that apparently influences the opportunity for error is the

difference of usage of a given functor in the mother-tongue and the target language structure.

Counting the number of obligatory occasions of a functor is therefore only a partial indicator of the opportunity for error. This becomes evident upon relating the percentage of error in each grammatical category to the corresponding obligatory occasion mean. Ranges, medians and means of obligatory occasions for the three methods are presented in table 4.

In the preposition category the highest persentage of error took place in the translation task, which had the lowest obligatory occasion mean. All four prepositions required in this task would not have been required in the parallel native language structure.

In the adjective category, the composition had the highest obligatory occasion mean, and also the highest error percentage, which seems to indicate that the obligatory occasion and the opportunity for error coincided. The Spanish adjective requires person and number agreement with its corresponding noun. This requirement is absent in English, and further, the morpheme is a redundant form. Both characteristics have been found to be important factors in the cause for error. In view of this, one would expect the obligatory occasion mean and error percentage in the adjective category to correlate in all three tasks. Yet, the translation and picture description had almost the same obligatory occasion mean, but the picture description had a much higher error percentage. (11.0% vs. 3.6%; obligatory mean: 1.7 vs. 2.0). The difference

might depend on the subjects perception of the tasks. They had participated in both kind of tasks previously. They knew that in a translation task the teacher expected an accurate and correct translation. In the description of pictures, teacher emphasis and encouragement had been on the expression of ideas; grammatical corrections had been done in a very casual manner to minimize inhibition.

In the verb category the same process seems to have taken place. In the translation task, which had the highest obligatory occasion mean, the error percentage was the lowest. Obligatory occasion means and error percentages did not vary greatly for the picture description and the composition.

In the determiner category, the fact that in the picture description the error percentage was lower than in the composition, although the former had a much higher obligatory occasion mean, was most likely influenced by the semantic cues for determiner choice. As mentioned earlier, the pictures that had to be described represented one or two subjects involved in an activity. Some subjects were male, some female. When providing the appropriate description, the learner had a choice of writing: the man, the woman, he, she, or no subject pronoun. When the determiner was chosen, the corresponding noun (man, woman) clearly cues the learner on the proper choice of gender. The article usage in this case was also parallel to its usage in English. Even though articles were used with other

nouns as well, the majority involved "the man" or "the woman".
This was not the case in the compositions. Determiners were used
with a variety of noun classes, and usage was not always parallel
to the English one.

TABLE 4

Ranges, medians, and means of
obligatory occasions.

Picture description

Category	Range	Median	Mean
Verb	12-33	18	19.1
Preposition	2-15	7	7.1
Pronoun	0-15	3	4.2
Adjective	0- 4	2	1.7
Determiner	9-32	19	20.5

Composition

Verb	7-31	18	18.3
Preposition	4-19	11	10.5
Pronoun	1- 8	4	3.8
Adjective	2- 9	4	5.1
Determiner	3-26	13	13.5

The obligatory occasions for the translation task were the
following: verb 22; preposition 4; pronoun 8; adjective 2;
determiner 4.

Source categorization.

The results concerning the source categorization are presented in table 5. These are the number of errors in each category, and the percentages of errors as related to the total number of errors.

TABLE 5

Source categorization: number of errors and error percentages.

Category	Translation		Picture description		Composition	
	Number of errors	Error %	Number of errors	Error %	Number of errors	Error %
Intra-lingual	52	25.4	99	39.0	140	43.5
Lack of transfer	3	1.5	12	4.7	8	2.5
Communi-cative	40	19.5	49	19.3	61	18.9
Inter-lingual	27	13.2	21	8.3	42	13.0
Dual	68	33.2	49	19.3	53	16.4
Overlap	15	7.3	24	9.4	18	5.6

Arranging categories in decreasing frequency of error percentage, the following orders are obtained:

Composition	Translation	Picture description
Intralingual	Dual	Intralingual
Communicative	Intralingual	Communicative/Dual
Dual	Communicative	Overlap
Interlingual	Interlingual	Interlingual
Overlap	Overlap	Lack of transfer
Lack of transfer	Lack of transfer	

The method of data collection appears to have influence on some types of error, while it does not on others. The percentage of communicative errors was almost the same for the three methods. Variation in the lack of transfer, overlap, and interlingual categories was 5% or less. Greater variation was evidenced in the intralingual and dual categories. The intralingual percentages were: translation 25.4%; picture description 39%; composition 43.5%. Intralingual errors were primarily morphological. If L2 has a verb system in which the conjugated verb requires a person-number morpheme, each verb form represents an opportunity for error. When number and gender agreement is required between an adjective and noun, each adjective also constitutes an opportunity for error.

The percentages of dual errors were: translation 33.2%; picture description 19.3%; composition 16.4%. Dual errors are cases of simplification in which a form which is required in L2, but not in L1, is omitted. The high percentage of these errors in the translation task is directly related to the opportunity to commit the error, which was purposely frequent. When the opportunity to commit the error is increased one would expect a corresponding increase in errors. It is difficult to predict types of error; however, increased opportunity for dual errors can be counted. Whenever L2 requires a grammatical form which L1 does not require, an increased opportunity for dual errors exist. If percentages of dual errors are calculated in relation to the opportunity for such an error, results between the three methods may not vary in this

category. This does not mean that the opportunity for dual error
can be made equal in the three tasks. The researcher can control
the opportunity in the translation task, and possibly partially
control it in the picture description. In the free composition he
has no control. But he may, in all three tasks count the opportunity
for dual errors in the same manner that he counts the obligatory
occasions.

Conclusions.

The study has shown that the method of data collection can
influence the number of certain types of error. Results obtained
from the compositions and picture descriptions tended to be similar
for most categories. Greater differences in results were found
between these two methods and the translation task. Analysis of
the errors suggests that some differences could be reduced through
adjustments of the statistical analysis. A proposed adjustment is
the counting of opportunities for dual errors, and calculating the
proportion of these errors in relation to the opportunities.
Errors in the choice of a determiner occurred primarily with nouns
that do not have a semantic cue as to gender. A separation of
determiners based on the class of nouns they are used with, should
result in a smaller difference.

Possibly attributable to the subjects perception of the tasks
was the low percentage of intralingual errors in the translation
task. Translation exercises had been used in the experimental
classroom to test the learners' knowledge of a rule, and to practice

its applicability. As far as the learner is concerned, a translation task such as the one used here is not so much for the purpose of communicating the message of the sentence, as it is for testing his knowledge of rules. In this task he appears to concentrate more on applying the L2 rules he has learned, than he does in the other two tasks. In the composition and picture description, application of certain rules seems to become secondary to communicating his thoughts and ideas.

When written samples are collected, and the researcher wants some control of the provided language samples, a task in the form of a directed dialogue might provide a more accurate picture of the learner's spontaneous use of the language, than the translation task does. However, whenever the learner's language is directed, some of the creative language which is evidenced in a task like free composition, is lost. Nevertheless, from this study it can be concluded that with slight adaptations of the statistical analysis, results obtained from the three methods should be very similar.

APPENDIX

Examples of free compositions. (Errors are underlined)

El 12 de marzo.

Cuando yo _fue_ pequeño, yo _piensaba_ que _el_ día importantísimo _fue_ el 12 de marzo, mi cumpleaños. Yo aguardaba con impaciencia _este_ fiesta. Todos mis _padres_ y todos mis amigos venían a la casa y nosotros comíamos muchas cosas deliciosas, como el pastel y el helado.

Pero ahora este día es menos importante, porque todos los días son importantes. Y el día _lo_ más importante es hoy. ¿ por qué? porque necesito vivir _por_ hoy. Por ejemplo, ayer yo _querí_ ir a visitar (_a_) _una_ amigo que vive en Francia, pero yo _sabí_ que no _estaba_ posible. Un día voy a poder hacerlo. _Hasta luego_, tengo que _estoy_ contento aquí.

La semana _pasado_ mi _compañero_ de cuarto estuvo muy _enferma_. _tenío una_ dolor de garganta, _una_ dolor de cabeza, y su cara _tenío mucho calor_, pero (_estaba_) muy pálida. ¡Qué terrible! La muchacha no _querío a_ ir (_a_) la escuela, _pero_ se quedó en su cama. Yo comprendí y la _conté a var_ al doctor. Mi amiga fue _hacia_ la enfermería y _ví_ (_a_) el doctor. El tomó su temperatura y _tenió_ fiebre. El doctor miró su garganta y _deció_:"Este es (_un_) dolor de garganta muy _mala_." El _prescribió_ una medicina _por_ mi amiga. En _pocas_ días mi _compañero_ (_se_) _sentió más bien_, pero aún ella no _quiera a_ ir a la escuela.

Translation task.

Required vocabulary.

Verbs:

acabar de ... - to just have done something

dar   - to give

decir   - to tell

estudiar   - to study

gustar   - to like (reverse in Spanish, straight forward in English)

hacer   - to make (in the provided context)

ponerse   - to put on (reflexive in Spanish)

ser/estar   - to be

tener que... - to have to...

tomar   - to take·(in the provided context)

ver   - to see

Nouns: (and corresponding determiners when needed)

abrigo, saco - coat

casa   - home, house

examen   - examination

huevos   - eggs

libro   - book

molestia   - bother

niños   - children

Pronouns:

All subject pronouns, plus indirect object pronouns me, le, les.

(me, him, them)

Prepositions:

acabar de ...   (not required in English)

un examen de español - a Spanish examination (not required in English)

dijo a Juan - he said to John/he told John

vieron a los niños - they saw the children (not required in English)

Adjectives:

bonito (a) - pretty

rojo (a)   - red

Adverbs:

mucho   - much

Conjunctions:

tener que ... - to have to ... (not required in English)

Tenses required:

Present, simple past, compound past.

    Items tested:

Tenses

Gender of nouns

Adjective and noun agreement

Object pronoun position

Subject pronoun usage

Prepositions not required in English

Conjunctions not required in English

Adverbial forms

"To like" as a reverse verb

"To put on" as a reflexive verb

Irregular verb forms

.cture description task.

Required vocabulary.

Verbs:

andar, caminar	- to walk
beber, tomar	- to drink
comprar	- to buy
dar	- to give
decir	- to say
dejar	- to leave (someone or something)
enseñar	- to show
entrar	- to enter
escuchar	- to listen
ir	- to go
irse, salir	- to leave (oneself)
levantarse	- to get up (reflexive in Spanish)
pensar	- to think
sentarse	- to sit down (reflexive in Spanish)
ser/estar	- to be

Expected nouns: (and corresponding determiners when needed)

café	- coffee
campo	- country
cuenta	- bill
dinero	- money
flor	- flower
hombre, señor	- man, gentleman

mesa	- table
mesera	- waitress
moneda	- coin
mujer, señora,	- woman, lady (Mrs.)
música	- music
reloj	- watch
restorán	restaurant
silla	- chair
sombrero,	- hat

Pronouns:

Subject pronouns he, she, they; object pronouns her, him.

Prepositions:

decir a	- to say to/to tell
salir de	- to leave (oneself)
levantarse de	- to get up from
sentarse en	- to sit on
entrar en	- to enter (not required in English)
por	- through

Although these forms were expected, they were not always provided. There was no control of adjectives (determiners were classified separately), adverbs, conjunctions, and tenses.

Items tested:

Gender of nouns

Adjective and noun agreement when adjective was provided

Object pronoun position

Subject pronoun usage

Prepositions not required in English

Spanish reflexive verbs, not reflexive in English

Irregular verb forms

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