ABSTRACT
                This paper presents and illustrates a technique for
analyzing the communicative effect of errors produced in spoken and
written communication samples by students of English as a second
language (ESL). First, a method is demonstrated for eliciting a
representative communication sample of a student's speech or writing,
using pictorial stimuli. Second, a practical taxonomy is presented
for classifying student errors in communicative and linguistic terms.
Third, an actual written composition demonstrates step-by-step how to
classify, code, and chart these errors systematically. Finally,
suggestions indicate ways in which the ESL teacher can use error
charts to obtain four different kinds of information about his
students' spoken and written proficiency. (Author/AM)

GOOF ANALYSIS FOR ESL TEACHERS

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The purpose of this paper is to present a method for determining how and which errors affect the comprehension of intermediate ESL students' speech and writing, and to demonstrate how error analysis can be useful to ESL teachers. The analysis of errors can serve two functions. First, studying errors can help psycholinguists to understand better the complex processes involved in learning a language, whether foreign or native. Although very little is known about these processes at this time, studies in error analysis hold promise of adding much to our knowledge. Thus it is probable that in the future error analysis will contribute to the evolution of language pedagogy and the redesign of learning materials. Second, and of more immediate interest, studying errors can help language teachers solve practical problems such as those outlined by Corder (1973, p. 265):

> Errors provide feedback, they tell the teacher something about
> the effectiveness of his teaching materials and his teaching
> techniques, and show him what parts of the syllabus he has been
> following have been inadequately learned or taught and need further
> attention. They enable him to decide whether he must devote more
> time to the item he has been working on. This is the day-to-day
> value of errors. But in terms of broader planning and with a new
> group of learners they provide the information for designing a re-
> medial syllabus or a programme of reteaching.

The procedures described below are intended to guide ESL teachers in eliciting a spoken or written communication sample and in evaluating the errors contained in this sample.

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Eliciting Communication

The process of analyzing student communication errors begins by obtaining a representative communication sample. This sample must meet two criteria: 1) it must contain a wide variety of learner errors available in sufficient quantity for error analysis (Valdman 1975, p. 232), and 2) it must represent a realistic communicative situation that can be simulated in the classroom (Bartz 1976, p. 55). An effective and efficient way to obtain a communication sample for error analysis is to use pictorial stimuli. The picture sequences found in a variety of books, newspapers, magazines, and texts known as "picture composition books" lend themselves well to oral and written description.[1] After selecting picture sequences suitable for the age group of one's students, the teacher should obtain communication samples from a small group of learners to make certain that the pictorial materials satisfy the two criteria stated above. Some suggestions for using picture sequences to elicit spoken and written descriptions from ESL students follow.

Speaking

Spoken errors are easier to analyze when the oral communication sample is recorded and transcribed. Students can be recorded simultaneously in a language laboratory (if available) or individually with the use of a good quality tape recorder in a quiet location. Before the students begin taping their picture story descriptions, they must understand completely the purpose, procedures, and restrictions of their oral task. Because they are expected

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[1]Two such picture composition books are: Composition Through Pictures by J. B. Heaton, and Composition Picture Book by L. A. Hill. Both books are available from Longman Group Limited, London, England.

to use only the vocabulary and grammatical structures they have mastered for active use, students should not be permitted to use dictionaries, grammar books, class notes, or other such external aids, nor should they speak with one another while being recorded. Although they should not stop, replay, or rerecord any portion of their taped narrations, students may be permitted to rephrase their utterances. It is essential that sufficient time be alloted for all students to complete their picture story narrations.

Transcribing the taped descriptions facilitates accuracy in identifying and classifying errors for analysis. If typing the transcriptions is not feasible, they can be written in legible handwriting preferably with double spaces between lines to facilitate reading. Mispronounced words should be spelled as they sound, garbled words can be substituted by a line, and incompleted sentences can be so indicated with an ellipsis.

Oral picture story narrations seldom last longer than a few minutes, but transcribing them can be tiresome and time-consuming work, especially when there are many of them. If the teacher does not have time to complete this task alone, he can appoint competent, advanced-level students to help him. This procedure will not only save him time and energy, it also provides excellent dictation practice for his students and increases their active participation in the teaching-learning relationship.

Writing

Students should write their compositions in pencil so that they may erase and correct mistakes easily. With one exception, all the restrictions described above for eliciting spoken communication also apply to obtaining a written communication sample. In order to enhance the face validity of

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the descriptive task, students may revise their compositions, just as one would do in many real-life situations.

When transcriptions or written compositions have been completed, the communicative effect of their errors can be evaluated.

Evaluating the Communicative Effect of Errors

Definition of error

An issue that must be considered before classifying and analyzing student errors is to establish a standard for distinguishing correct from incorrect usage. Valdman (1975, p. 243) suggests that approaching errors based on their communicative effect is most useful for pedagogical applications. In this paper, an error is defined as a form or structure that a particular teacher deems unacceptable because of its inappropriate use in a given communicative task.

Classification of errors

Burt and Kiparsky (1972) found that the spoken and written errors or "goofs" produced by ESL learners fall into two distinct categories: global errors and local errors. A _global_ error is a _communicative_ error that causes a native speaker either to misinterpret a spoken or written message or to consider the message incomprehensible within the total context of the error. A _local_ error, on the other hand, is a _linguistic_ error that makes a form or structure appear incorrect or awkward but, nevertheless, causes a native speaker little or no difficulty in understanding the intended meaning of a sentence, given its contextual framework (Hendrickson 1976, p. 6).

Global and local errors can be classified further into five general subcategories based on the misuse or omission of linguistic forms and structures in standard English lexicon, syntax, morphology, orthography, and phonology. The lexical subcategory includes misused or omitted nouns (including compound nouns), verbs, adjectives, and adverbs. The syntactic subcategory comprises misused or omitted articles, demonstrative and possessive adjectives, modals (e.g., may, can, do), qualifiers (e.g., quite, rather, very), prepositions, conjunctions, subordinators (e.g., that, before, after), sentence connectors (e.g., also, still, afterward), question words (e.g., why, when, how), faulty word order, and certain otherwise uncategorized syntactic classes (e.g., there is, it is). The morphological subcategory refers to the misuse or omission of any required bound morpheme (e.g., ed in played vs. play, un in uncommon vs. common). The orthographic subcategory consists of the addition, omission, substitution, rearrangement, or malformation of one or more letters in any lexical, syntactic, or morphological form or structure. The phonological subcategory, which applies to the spoken counterpart of written communication, includes mispronunciations that are recognizably foreign (e.g., "light" pronounced as "right," "where" pronounced as "ver"). Thus, global and local errors can be subclassified into five general categories that contain more specific linguistic components as shown below:

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	Lexical	Syntax	Morphology	Orthography	Phonology
Global Errors					
Local Errors					
	Adjectives Adverbs Nouns ...etc.	Articles Conjunctions Modals ...etc.	-ing Plural markers Subject-Verb agreement ...etc.	Added letters Omitted letters Rearranged letters ...etc. (Written communication only)	Pronunciations that are recognizably foreign (Oral communication only)

A Functional Model

The following picture story composition, written by a low-intermediate-level female ESL student from Libya, is used as a working model to illustrate step-by-step how errors can be classified according to the taxonomy described above.[2]

Thier are two man tooking to the farm. In the nigth a snow came down. At the moring the two men came out from the wendow. They are start to look four the sheps. They foend the sheps. They taeking the sheps with them. The plin came down and the trik brot the food and the taeking the food to the plin. The plin went up and start to cave the shps food.

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[2]The stimulus for the composition was Picture Story 18 in L. A. Hill, Picture Composition Book, London, England: Longman Group Limited, 1960.

Here are the steps that should be followed in the evaluation and classi-

fication of errors:

1. Read the composition once for overall comprehension.

2. Read the composition a second time and underline all global errors

in red and all local errors in green.

3. Classify and code all errors based on the global/local error

taxonomy. Use capital "G" to represent a global error and capital "L" to

indicate a local error. Use lower case letters for coding errors repre-

sented by the four subcategories: "l" for lexicon, "s" for syntax, "m" for

morphology, and "o" for orthography (obviously, no phonological errors are

evident in written communication).

4. Compare the written composition with the picture sequence to be

sure that no vocabulary words cause a misinterpretation of a sentence's

meaning.3

The errors in the model composition below have been identified and

classified according to the four steps outlined above.[4]

    Lo   Lm   Go Ls   Ls   Lo Ls
Thier are two man tooking to the farm. In the nigth a snow

  Ll   Ls   Lo   Ls   Lo
came down. At the moring the two men came out from the wendow. They

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3Sometimes, when communication demands exceed a student's lexical
knowledge, he will substitute somewhat inappropriate words pertaining to
the picture story. For example, the word "plin" (the student probably
meant "plane") in the model composition contains not only a local ortho-
graphic error; it also represents a global lexical error because the actual
picture sequence portrays a helicopter. Similarly, the word "food" may be
viewed as a local lexical error because despite the fact that the food is for
sheep, the specific kind of food shown in the picture sequence has not been
communicated, i.e., hay. For an interesting typology of this type of error,
see Váradi, Támas, "Strategies of target language learner communication:
message-adjustment." Paper presented at the VI Conference of the Romanian-
English Linguistics Project in Tsimisoara, 1973.

4In the model composition a double line denotes a global error that
would be underlined in red, and a single line denotes a local error.

are <u>start</u> to look <u>four</u> the <u>sheps</u>. They <u>foend</u> the <u>sheps</u>. They <u>taeking</u>

the <u>sheps</u> with them. The <u>plin</u> came down and the <u>trik</u> <u>brot</u> the <u>food</u> and

the <u>taeking</u> the <u>food</u> to the <u>plin</u>. The <u>plin</u> went up and <u>start</u> to <u>cave</u>

the <u>shps</u> <u>food</u>.

Once a student's errors have been classified generally, they can be

recorded onto an error chart for further categorization and subsequent

analysis. Two additional steps are necessary:

5. Tally and record errors appropriate to each general category and

total all global and local errors.

6. Classify, tally, and record high-frequency errors of each general

category (global and/or local errors, depending upon student needs). The

error chart below includes the tally of <u>all</u> errors contained in the model

composition:

	Lexicon	Syntax	Morphology	Orthography*	TOTAL
Global Errors	4			2	6
Local Errors	6	5	8	17	36
	Adjectives __	Articles <u>1</u>	-<u>ing</u> <u>1</u>	Added letters <u>1</u>	
	Adverbs __	Conjunctions __	Plural markers <u>5</u>	Omitted " <u>12</u>	
	Nouns <u>7</u>	Modals __	S-V concord __	Rearranged " <u>4</u>	
	Verbs <u>3</u>	Prepositions <u>4</u>	Tense concord <u>2</u>	Substituted " <u>9</u>	

*Note that, although the student produced 19 orthographic errors <u>in</u>
<u>general</u>, there are 26 separate occurrences of letters that were added,
omitted, rearranged, or substituted (e.g., omitted "u," "g," and "h" in
<u>brot</u>, and "i" substituted for "a" in <u>plane</u>).

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Four uses of error charts

ESL teachers can use error charts to obtain four different kinds of information about their students' speech or writing. First, by glancing at the upper section of the error chart, the teacher quickly obtains an overall view of a student's general linguistic and communicative capabilities and limitations based on that student's errors. For example, in the error chart above, it is clear that the student needs a considerable amount of remedial work in spelling in order to improve her linguistic ability, but, in general, she communicates fairly well on a global level.

Second, the teacher can pinpoint the specific communicative or linguistic features that a student has least mastered for active use. For example, by examining the lower section of the error chart shown, we see that the most commonly encountered problems of this student are with nouns, prepositions, plural markers, and letters that have been either omitted or substituted in misspelled words.

Third, by calculating a global and local error index, it is possible to assign a numerical value to a student's communicative and linguistic proficiency. A "global error index" is calculated by dividing the total number of global errors by the total number of words written (or spoken) in the communication sample, then subtracting this dividend from 1. The global error index is computed to reflect a student's communicative proficiency, i.e., a student's communicative proficiency increases as his global error index approaches 1. Similarly, dividing the total number of local errors by the total number of words in a communication sample, then subtracting the dividend from 1, yields a "local error index." A student's local error index thus reflects his linguistic proficiency, i.e., a student's linguistic proficiency

increases with his local error index. For example, in the model composition, the student produced 6 global errors and 36 local errors, while writing a total of 73 words. Following the calculation procedures described above, we can now represent this student's communicative proficiency as 0.92 and her linguistic proficiency as 0.51.[5] The use of these indices over a period of time would permit the teacher to follow, and literally to graph, students' progress in developing linguistic and communicative language skills.

Fourth, by recording all one's students' error types and frequencies on a master error chart, the teacher can determine and more efficiently work on specific problems that are evident in the linguistic and communicative proficiency of an entire class.

Conclusion

The errors that students produce in their spoken or written communication samples provide the teacher with feedback on the effectiveness of his teaching materials and techniques. If these errors are classified and charted systematically, the teacher can obtain a clear picture of the parts of his syllabus that need further attention. Like all instructional techniques, no one technique is suited to the goals or preferences of all teachers; therefore, the techniques described in this paper will be most effective if the ESL teacher adapts them to his own students' needs. Once the teacher becomes more familiar with observing and charting errors systematically, he will become more aware of the possible roles that error analysis can play in the development of remedial materials for individual students and instructional syllabi for new groups of learners.

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