

MEASURING WRITING PROFICIENCY OF COLLEGE ESL STUDENTS

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Abstract

Previous studies on writing proficiency of college students have focused primarily on native English writers; few have focused on writers for whom English is a second language. The current educational trend shows that more and more ESL students are pursuing college-level education in English-speaking universities abroad, and that proficiency in writing is a major academic requirement for these ESL students. Many of these second language learners may have obtained the required basic qualifications to allow them to undertake college work but they still need additional writing instruction and practice before they can meet the standards set in traditional freshmen composition courses. This paper addresses the need for more research in the area of assessment of writing proficiency of college ESL students. Research in the writing of college ESL students is still in the infant stages. More research will be needed in order to help determine how college ESL students function as writers, how competent they are, or how they differ from or are similar to native speakers in their writing abilities.

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Introduction

Teachers preparing English as a Second Language (ESL) students for college-level work have for some time felt the need for a direct measure of their students' ability to produce syntactically mature prose. An instrument that could directly measure second language learners' ability to control syntactic structures while attempting to produce mature writing, would be of practical value to ESL teachers interested in facilitating the language development of their students.

The purpose of this paper is to highlight the need for more research in the assessment of writing proficiency of college ESL students. Previous studies on syntactic maturity levels, and on differences in syntactic structures, have focused primarily on native English writers; few have focused on writers for whom English is a second language.

Research in the Area of Writing

For several decades now researchers in the area of writing have tried to describe in objective, quantitative and revealing terms what syntactic differences can be observed in the writing of schoolchildren and adults at varying stages in their language development. Following the publication of Chomsky's *Syntactic Structures* (1957), considerable research has been carried out that examines various performance aspects of syntactic complexity.

Research in the writing of college ESL students, however, is still in the beginning stages. There are many articles which present research results of groups of students but little information is readily available regarding how college ESL students function as writers, how competent they are, or how they differ from or are similar to native speakers in their writing abilities.

Measuring Writing Proficiency

In addition to the fact that research in ESL writing has not provided us with universally accepted theoretical or practical answers, there is the fact that current research in second language learning has developed in several directions.

In the last two decades, although there was strong concern for research on writing and on written products, Braddock, Lloyd-Jones, and Schoer (1963:5) came to the conclusion that "today's research in composition, taken as a whole, may be compared to chemical research as it emerged from the period of alchemy: some terms are being defined usefully, a number of procedures are being refined, but the field as a whole is laced with dreams, prejudices, and makeshift operations." After surveying much of the then existing research on writing, Braddock, Lloyd-Jones, and Schoer outlined basic problems in conducting research in writing, and showed potential researchers how to refine the "structure and technique" of their studies.

Although Braddock, Lloyd-Jones, and Schoer (1963:31-32) identified new questions which were likely to lead researchers into "unexplored territory," and indicated the need for "direct observation" and case study procedures in their suggestions for future research, they heavily emphasized pedagogical, comparison-group studies. They raised pertinent questions, such as "What is involved in the act of writing?" and "What does skill in writing actually consist of?", which could lead to basic research in writing, but their emphasis was on studies that appeared to assume we already had a thorough understanding of writing and the written products.

Unlike those researchers cited by Braddock, et al., many researchers in the 1970's and 1980's like Hunt (1970a, 1977), Odell, Cooper and Courts (1978), Faigley (1979), Sharma (1979, 180), Flahive and Snow (1980), Gaies (1980), Ferris and Politzer (1981), McKay (1981), Buchanan (1982), Harris (1982), Jones (1982), and Zamel (1983), make no such assumption. Rather, these researchers raise questions which

invite us to test, to examine, and to modify our basic assumptions about writing and syntactic complexity among college students.

Research in First Language Composition

Early researchers into syntactic complexity, such as Loban (1963), Hunt (1964, 1965, 1966, 1968) and O'Donnell, Griffin, and Norris (1967), concentrated their studies mainly on children who were native speakers of English. Hunt (1964, 1965, 1966, 1968, 1970a, 1970b and 1977), the name most often associated with research in syntactic development, adopted the technique of dividing groups of words into what he identified as "minimal terminable units" or T-units.

In one of his early studies Hunt (1965) investigated the free writing of schoolchildren in grades 4, 8, and 12, and the writing of skilled adults who wrote for *Harper's* and *Atlantic* magazines. Each grade group consisted of a total of 18 students, nine male and nine female. The group of skilled adults who were native speakers of English was made up of nine from each magazine. In this study Hunt used the T-unit as his main measuring device to examine the syntactic development in the free writing of his subjects. The study by O'Donnell, Griffin, and Norris also used the T-unit as one of their measures in studying syntactic development in both the speech and free writing of kindergarten and elementary schoolchildren.

The findings by Hunt (1965) and O'Donnell, Griffin, and Norris (1967) reveal that there is evidence to indicate that throughout the school years, from kindergarten to graduation, English-speaking children learn to use a larger and larger number of sentence-combining transformations per main clause in their writing.

The studies by Hunt (1965) and O'Donnell, Griffin, and

Measuring Writing Proficiency

Norris (1967) have dealt with two different kinds of free writing. It is therefore possible to assume that the influence of subject matter upon the sentence structures produced by the subjects could be an important factor for consideration in determining the progressive increase in syntactic complexity. Generally, older writers tend to write on more sophisticated subjects or to deal with ordinary subjects in more sophisticated ways, and in studies like these, the subject and the treatment of the subject might have had as much to do with the sentence structures chosen as the age and syntactic capabilities of the writers.

Since the studies by Hunt (1965) and O'Donnell, Griffin, and Norris (1967), a vast amount of research on writing ability of native speakers of English has been carried out. Investigators such as Mellon (1969), O'Hare (1973), Combs (1976), Maimon and Nodine (1978), Mulder, et al. (1978), Daiker, et al. (1978), Morenberg, et al. (1978), Faigley (1979) and Haswell (1981), have used the T-unit as an index of syntactic maturity to demonstrate that sentence-combining exercises can accelerate significantly the syntactic growth of widely disparate age groups among native speakers of English.

Other studies on the assessment of writing proficiency of native speakers have been carried out by Hunt (1970a, 1977), Stewart (1978), Freedman (1980), King (1981), and Corwhurst (1980). Collectively, these studies have demonstrated that syntactic complexity (that is, the effective use of subordinate clauses) develops chronologically in the writing of English-speaking subjects.

Hunt's study (1970a) makes use of a rewrite passage with native speakers of English. He studies the rewriting abilities of groups of students, 50 in each group, at grades 4, 6, 8, 10, and 12, and then compares these with groups described as "average" and "skilled" adults. Hunt examines a number of factors and measures syntactic development in his subjects.

From an analysis of syntactic structures written by the

subjects, Hunt finds that the level of syntactic complexity of all his subjects increases consistently as they mature and progress through the formal education system. "Average" adults are shown to be slightly above grade 12 while there is a sharp rise in the level of complexity shown by "skilled" adults over that of the grade 12 and "average" adult groups.

Using the same instrument and procedures employed in 1970 by Hunt to measure writing proficiency, Stewart reports on an experiment to determine whether growth in syntactic maturity continues to increase as a person leaves high school and proceeds through six years of study in a university. His native English-speaking subjects are drawn from 126 students from grades 10, 11, and 12, and 176 university students. Stewart finds Hunt's procedures and measures to be useful in measuring writing proficiency among his subjects.

From his experiment Stewart concludes that:

(a) students in the first three years of university do not display significant gains in syntactic maturity over levels reached in the last years of high school;

(b) students in the fifth and sixth years of university do display gains over high school and lower level university students; and

(c) mean words per T-unit appears to be the best of those measures of syntactic growth employed by Hunt.

Stewart (1978:46) advocates replication of his study and further research in the area of writing proficiency of college students in order that the entire question of the nature of syntactic maturity and the measurement of its development "be re-examined and subjected to much more investigation." Stewart concludes that "the identification and assessment of desirable changes in students' writing are no mean chores,

Measuring Writing Proficiency

and right now, this particular line of approach looks most promising." (46)

Although all the studies mentioned so far have implicitly or explicitly indicated growth in syntactic complexity in the writing of native speakers of English, there is reason to believe that the impact of syntactic development, vis-à-vis the writing proficiency of college ESL students has not been adequately examined.

Research in ESL Composition

The history of this research is limited since only a very few studies to date have involved the measurement of writing proficiency of ESL or foreign language learners at all levels of education. It appears that research on writing in general and on ESL writing in particular, has yet to produce work that would ensure wide recognition for the value of process studies in composition. One possible limitation of work done to date is methodological

Perl (1979:317), describing the state of research on writing, indicates that narrative descriptions of the writing process "do not provide sufficiently graphic evidence for the perception of underlying regularities and patterns." Without such evidence, she contends, it is difficult to generate well-defined hypotheses and to move from exploratory research in writing to more controlled experimental studies. Perl points out that one limitation pertains to the subjects studied: to date not many examinations of the writing process have dealt primarily with subjects for whom English is a second language.

With the recent growth of and interest in the assessment of writing proficiency in ESL, researchers like Larsen-Freeman and Strom (1970), Larsen-Freeman (1978), Sharma (1979, 1980), Kameen (1979), Flahive and Snow (1980) and Gaies (1980), have acknowledged the need for an index of develop-

ment by which an ESL learner's proficiency in the English language should be gauged.

Kameen (1979:343) argues that in order to "better prepare composition teachers to help their ESL students learn to write," it is essential to have "a more thorough understanding of the relationship between syntactic skill and ESL writing quality, an understanding based on a solid body of empirical data." From the results of an exploratory study to determine if there was a correlation between syntactic skills and scores assigned to compositions written by college-level ESL students, Kameen (1979:349) concluded that "in terms of length of writing units, T-unit length and clause length appear to be much more reliable indices of rated quality than is the time-honored index of sentence length."

While Flahive and Snow (1980) concede that "there is far more writing than length of T-unit or clause per T-unit," they acknowledge that these measures are "relatively useful in determining levels of overall ESL proficiency and in predicting the overall effectiveness of writing ability."

Consequently, the T-unit as an index of measurement for writing proficiency, first used by Hunt (1970a, 1970b, 1977), has found favor in ESL research in recent years. The T-unit was first adopted in the form of error-free T-unit by Scott and Tucker (1974), who wanted an index of measurement which reflected error frequency as well as syntactic complexity in the writing of their experimental subjects. Both the T-unit and the error-free T-unit have come to be recognized by both first language and second language researchers as easily computable, objective measures of syntactic growth in writing proficiency, and are far more valid than the traditional measures, such as sentence length.

Larsen-Freeman and Strom (1977) state that the T-unit is a viable measure on which to base an index of ESL development. In fact, in her research, Larsen-Freeman (1978) has found that the average number of words per error-free T-unit

Measuring Writing Proficiency

discriminates very well between different levels of ESL proficiency. Her study, however, poses a problem with an uneven distribution of subjects among her groups, and there have been several overlapping standard deviations. Larsen-Freeman points out that her groups are not homogenous regarding proficiency, which means that any one individual may fit into more than one group based on any one of her indices of writing proficiency taken alone.

Other studies on language development and on college-student writing that have utilized the T-units in an ESL context, have been carried out by Arthur (1979), Celce-Murcia and Santos (1979), Perkins (1980), and Ferris and Politzer (1981).

Arthur's study on the measurement of writing proficiency of English as a Second Language students at the University of Michigan indicates that assessment of writing proficiency does provide an objective look at some short-term changes that could occur in the writing skills of learners of ESL. Using nine measurements made on each of 152 compositions written by 14 lower-intermediate level ESL students, Arthur determines a number of changes in the writing skills of his students. From his analysis Arthur (1979:342) concludes that "the most notable improvements were in writing speed and in vocabulary size." Although Arthur has used T-units in three of the nine measurements to measure grammatical sophistication, he reports that "there was no significant change" in the frequency of grammatical errors. Although an exploratory study, Arthur's work is an example of research that has used measures based on the T-units to measure language development of students based on samples of their writing.

Drawing on the work of Larsen-Freeman (1978) and Arthur (1979), Celce-Murcia and Santos (1979) have utilized T-units and error-free T-units to measure the writing proficiency of a native user of American Sign Language studying ESL over a

period of one year. At the end of the year both researchers found that there was a "striking increase" in ESL language development, particularly in the number of words, the average length of T-units, and the average length of the error-free T-units. This study by Celce-Murcia and Santos appears to be the first to utilize T-units and error-free T-units in studying the developing features of the inter-language of a native user of American Sign Language studying English as a Second Language.

Perkins (1980) has utilized T-units and error-free T-units as two of ten objective measures of writing proficiency to evaluate compositions written by advanced level ESL students at the Center of English as a Second Language, Southern Illinois University, Carbondale. Perkins (1980:67) finds that "objective measures which take the absence of errors into account discriminate among holistic qualitative judgments of compositions from one level of proficiency." His conclusion is that whatever measures are isolated will have to be error-free if they are to discriminate among compositions written by advanced-level students of English as a Second Language.

Ferris and Politzer (1981) adopt the T-unit evaluation of writing proficiency to measure differences in ESL writing skills of a group of Spanish-speaking junior high school students. The investigators use three indices of writing measurement for their research: (1) the average clause length, (2) the number of words per T-unit, and (3) the number of clauses per T-unit. Although their findings do not reveal significant results for clause length and average number of clauses per T-unit, Ferris and Politzer (1981:267) contend that ESL students "who write large T-units are generally accepted as better writers by teachers and writing authorities because they possess greater flexibility in the kinds of sentences they can write."

In summarizing the trends in experimental procedures and analyses of the writing proficiency studies with college ESL

Measuring Writing Proficiency

learners, it is possible to see that, by and large, variables such as sex, age, major subject area, or length of time studying the English language, have not been controlled for nor have subjects been specifically described in terms of some standardized measures, such as Test of English as a Foreign Language (TOEFL) or the Michigan Test of English Language Proficiency, which could facilitate replication. In the major findings and conclusions of the studies on college ESL writers, no single index has proven satisfactory as *the* predictor of ESL writing proficiency.

Conclusions

In language learning the development of a learner's syntactic component is a continuous process. The syntactic component responds to demands made upon it rather as muscles respond when working with increasingly heavy weights. This process is as active with second language college students as with native speakers of English.

Many second language learners who have obtained the required proficiency to allow them to take college-level courses often need additional writing instruction and practice before they can meet the standards set in traditional freshman competition courses.

Proficiency in writing is a major academic requirement for learners of ESL preparing for college-level work, whether in overseas or local colleges. ESL teachers preparing such students have for some time felt the need for a direct measure of their students' ability to produce syntactically mature prose. Many existing language tests and measurements, because of their emphasis on objectivity and reliability, have encouraged the use of indirect measurement of writing skills.

Facilitating second language learners' control over written structures to a degree approximating that of native speakers

is the major objective of most college ESL teachers. To evaluate this facilitation, indirect measures like the TOEFL, the Michigan Test of English Language Proficiency, university placement and proficiency tests such as the English as a Second Language Placement Examination (ESLPE) at the University of California at Los Angeles are generally used. These measures have, at best, concurrent validity. Recognition of correct syntax is generally not synonymous with correct production of syntax. An instrument which could directly measure second language learners' ability to control syntactic structures while attempting to produce mature writing, would be of more practical value to college ESL teachers interested in facilitating the language development of their students.

At present, in most colleges where there are ESL classes, syntactic structures are taught at a variety of proficiency levels with some structures being taught at the "low" level, some at the "intermediate" level, and others at the "advanced" level. It might be difficult to define precisely the "low," "intermediate," and "advanced" levels except in qualitative and subjective terms. Some syntactic structures have to be taught first, and some last. If teachers of ESL knew what structures tended to be used at the different levels of proficiency, such knowledge might be one consideration, though not the only one, in helping them decide what should be taught when.

The main aim of this paper is to emphasize that as long as native speakers of English are the focus, it remains unclear as to how research on writing will provide teachers with a firmer understanding of the needs of college ESL students with serious writing problems. Due to inadequate research or to the manner in which the data has been elicited or the insufficient amount of data in the samples, not much is known about the syntactic characteristics in the writing of college ESL students at varying stages in their English lan-

Measuring Writing Proficiency

guage development.

A more thorough understanding of these syntactic characteristics in the writing of college ESL students, an understanding based on a body of empirical data, will better prepare composition teachers of ESL to meet the writing needs of their students. The findings of such studies, based on a body of empirical data, apart from the contribution to knowledge of college ESL learners' mastery of the English language, will provide useful information for curriculum planners preparing writing courses in ESL, and for teaching methods in the ESL writing classrooms. These studies will also contribute knowledge to the field of applied linguistics by shedding some light on the difficulties and successes college ESL learners encounter in developing control over the written language.

It is hoped that more studies in the area of writing will focus on students for whom English is a second language. The results of such studies would be extremely useful to teachers preparing ESL students for college-level work both in the local and foreign institutions of higher learning.

REFERENCES

- Arthur, Bradford. Short-term changes in EFL composition skills. Paper presented at the 13th TESOL Convention, Boston, 1979.
- Braddock, R., Richard Lloyd-Jones and Lowell Schoer. *Research in written composition*. Champaign, Illinois: NCTE, 1963.
- Buchanan, L. M. Research on native-speaker composing: implications for ESL. Paper presented at the 16th TESOL Convention, Hawaii, 1982.
- Celce-Murcia, M. and T. Santos. Writing proficiency of a native user of American Sign Language. *Workpapers in TESL*, UCLA, 1979.

- Chomsky, N. *Syntactic structures*. The Hague: Mouton, 1957.
- Combs, W. E. Further effects on sentence-combining practice on writing ability. *Research in the Teaching of English*, 1976, 10, 137-149.
- Cooper, C. R. and Lee Odell, eds. *Research in composing*. Urbana, Illinois: NCTE, 1978.
- Crowhurst, M. Syntactic complexity and teachers' quality ratings of narrations and arguments. *Research in the Teaching of English*, 1980, 3, 223-231.
- Daiker, D. A., et al. Sentence-combining and syntactic maturity in freshman English. *College Composition and Communication*, 1978, 29, 36-41.
- Faigley, L. The influence of generative rhetoric on the syntactic maturity and writing effectiveness of college freshmen. *Research in the Teaching of English*, 1979, 13, 197-206.
- Ferris, M. R. and R. L. Politzer. Effects of early and delayed second language acquisition: English composition skills of Spanish-speaking Junior High School students. *TESOL Quarterly*, 1981, 15, 263-274.
- Flahive, D. and B. G. Snow. The use of objective measures of syntactic complexity in the evaluation of composition by EFL students. In John Oller, Jr. and Kyle Perkins, eds., *Research in language testing*. Rowley, Mass.: Newbury House Publishers, Inc., 1980.
- Freedman, Aviva. Writing in the college years: some indices of growth. *College, Composition and Communication*, 1980, 31, 311-324.
- Gaies, S. J. T-unit analysis in second language research: applications, problems and limitations. *TESOL Quarterly*, 1980, 14, 53-60.
- Harris, M. Individualized diagnosis: searching for causes, not symptoms of writing deficiencies. In Muriel Harris, ed., *Tutoring writing*. Glenview, Illinois: Scott and Foresman, 1982, 53-65.

Measuring Writing Proficiency

- Haswell, R. H. Within-group distribution of syntactic gain through practice in sentence-combining. *Research in the Teaching of English*, 1981, 15, 87-96.
- Hunt, K. W. Differences in grammatical structures written at three grade levels, the structures to be analyzed by transformational methods. Tallahassee, Florida: U.S. Office of Education Cooperative Research Project No. 1998, 1964.
- Hunt, K. W. Grammatical structures written at three grade levels. Champaign, Illinois: NCTE, 1965.
- Hunt, K. W. Recent measures in syntactic development. *Elementary English*, 1966, 43, 732-739.
- Hunt, K. W. Syntactic maturity in schoolchildren and adults. Monograph of the Society for Research in Child Development, Serial No. 134, Vol. 35, No. 1. Chicago: University of Chicago Press, 1970a.
- Hunt, K. W. An elementary school curriculum to develop better writing skills. Tallahassee, Florida: U.S. Office of Education Cooperative Research Project, 1970b.
- Hunt, K. W. Early blooming and late blooming syntactic structures. In C. R. Cooper and L. Odell, eds., *Evaluating writing: Describing, measuring, judging*. Urbana, Illinois: NCTE, 1977, 91-104.
- Jeffery, C. Teachers' and students' perceptions of the writing process. *Research in the Teaching of English*, 1981, 15, 215-228.
- Jones, C. S. Composing in a second language: a process study. Paper presented at the 16th TESOL Convention, Hawaii, May, 1982.
- Kameen, P. T. Syntactic skill and ESL writing quality. In C. A. Yorio and K. Perkins, and J. Schachter, eds., *On TESOL '79*. Washington, D.C.: TESOL, 1979, 343-350.
- King, B. J. M. Peer and teacher evaluation methods for written composition of eleventh-grade students. 1981 Ph.D. dissertation, University of Kansas.

- Larsen-Freeman, D. and V. Strom. The construction of a second language acquisition index of development. *Language Learning*, 1977, 27, 123-134.
- Larsen-Freeman, D. An ESL index of development. *TESOL Quarterly*, 1978, 12, 439-448.
- Loban, W. D. The language of elementary schoolchildren. Champaign, Illinois: NCTE, 1963.
- Maimon, E. P. and B. F. Nodine. Measuring syntactic growth: errors and expectations in sentence-combining practice with college freshmen. *Research in the Teaching of English*, 1978, 12, 233-244.
- McKay, S. A focus on pre-writing strategies. In M. Hines and W. Rutherford, eds., *On TESOL '81*, Washington, D.C.: TESOL, 1981, 89-95.
- Mellon, J. C. Transformational sentence-combining. Champaign, Illinois: NCTE, 1969.
- Morenberg, M., et al. Sentence-combining at the college level: an experimental study. *Research in the Teaching of English*, 1978, 12, 245-256.
- Mulder, J., et al. Effects of sentence-combining practice on linguistic maturity levels of adult students. *Adult Education*, 1978, 28, 111-120.
- Odell, L., C. R. Cooper, and C. Courts. Discourse theory: Implications for research in composing. In C. R. Cooper and Lee Odell, eds., *Research in composing*. Urbana, Illinois: NCTE, 1978, 1-12.
- O'Donnell, R. C., W. J. Griffin, and R. C. Norris. Syntax of kindergarten and elementary schoolchildren: a transformational analysis. Champaign, Illinois: NCTE, 1967.
- O'Hare, F. Sentence-combining: improving student writing without formal grammar instruction. Urbana, Illinois: NCTE, 1973.
- Perkins, Kyle. Using objective methods of attained writing proficiency to discriminate among holistic evaluations. *TESOL Quarterly*, 1980, 14, 61-69.

Measuring Writing Proficiency

- Perl, S. The composing processes of unskilled college writers. *Research in the Teaching of English*, 1979, 13, 317-336.
- Scott, M. and G. R. Tucker. Error analysis and English language strategies of Arab students. *Language Learning*, 1974, 24, 69-97.
- Sharma, A. Errors and syntactic complexity at two levels of EFL. Paper presented at the 13th TESOL Convention, Boston, 1979.
- Sharma, A. Syntactic maturity: assessing writing proficiency in a second language. In R. Silverstein, ed., *Occasional Papers in Linguistics*, No. 6. Carbondale, Illinois: Southern Illinois University, 1980.
- Stewart M. F. Syntactic maturity from high school to university: a first look. *Research in the Teaching of English*, 1978, 12, 37-46.
- Zamel, V. The composing processes of advanced ESL students: six case studies. *TESOL Quarterly*, 1983, 17, 165-188.