

DOCUMENT RESUME

ED 104 134

FL 006 536

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TITLE Linguistics and the Language Arts.
PUB DATE 74
NOTE 25p.

EDRS PRICE MF-\$0.76 HC-\$1.58 PLUS POSTAGE
DESCRIPTORS *Applied Linguistics; Composition (Literary);
Elementary Secondary Education; *English Instruction;
*Language Arts; Motivation; Nonstandard Dialects;
Reading Comprehension; *Reading Skills; Standard
Spoken Usage; Syntax; *Vocabulary Development;
Writing Skills

ABSTRACT

Linguistics can have useful applications in elementary and secondary language arts instruction, in a number of areas of skill development. The issue of student motivation is involved with the form of language used--standard or nonstandard--and educators may adopt the linguistic view that all forms of language have value and their use depends on the occasion. The mechanics of reading and writing involve skills of recognizing and reproducing letters; linguists' work in the area of phoneme-grapheme correspondence can be useful here. Reading comprehension involves ability to understand sentences and texts through the disciplines of semantics (including grammatical and lexical meaning), textual analysis, and syntax. Vocabulary building, while often over emphasized as an indicator of educational level, is an important language skill; words and lexical units may be categorized according to subculture and taxonomy as they best relate to the students. Oral and written expression and composition must be concerned with syntax, stylistics, textual analysis, and standard language theory, all fields in which linguistic findings can be part of the educational process. (CK)

ED104134:

U.S. DEPARTMENT OF HEALTH
EDUCATION AND WELFARE
NATIONAL INSTITUTE OF
EDUCATION

LINGUISTICS AND THE LANGUAGE ARTS

Paul L. Garvin

One of the obvious areas in which linguistics can find a useful application is that of the teaching of the language arts or the elementary and high school level. A good deal of effort has been devoted to this recently. Some well-known linguists have addressed themselves to educators, while a good many educators have made valiant attempts at "adapting the findings of linguistic science" for educational purposes. Particularly since the late 50's, all kinds of linguistically oriented materials have been produced both for use by teachers in the classroom, and addressed to teachers for their own "self improvement". Some of these materials were produced by linguists, others by educators, and a few even by both. A good many of these linguistic materials have actually found application both in schools of education and in elementary and high school classrooms, although, of course, these constitute only a small fraction of the total. At the same time, the use of linguistics in education has created quite a stir among both educators and the interested general public, and the amount of discussion generated has been quite out of proportion to the extent to which linguistic principles have actually been tested in the educational process.

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Although theoretically one would expect some really significant advantages from the application of linguistic principles to the teaching of the language arts, in practice, the results of much of the use of linguistics in this area have been quite inconclusive. It is difficult to tell what this is due to. Undoubtedly, some of the blame can be placed on the inertia inherent in the educational bureaucracy and in established educational practices. Undoubtedly also, some of the blame can be placed on the naivete of teachers and other educators who simply are trying one "significant" improvement after another without really understanding what it's all about, and who thus are using the trappings of linguistics without quite comprehending



its essence. Surely, no small portion of the blame also attaches to the materials themselves. Often, linguists simply tell educators how to apply linguistic principles to teaching without knowing much about the nature of the teaching process. Equally commonly, educators scan the linguistic literature to see what the latest "findings" are and look for ways of applying them in the teaching of the language arts, without knowing much more about linguistics than the linguists know about education.

How, then, can linguistics be of greatest use to the teaching of the language arts?

To begin with, some obvious but perhaps not entirely trivial cautionary remarks. The first of these is addressed to the linguist: "The linguistic tail should not try to wag the educational dog". That is, linguists--as well as other devotees of linguistics--should be aware of the fact that linguistic factors are only one of the many considerations that have to be taken into account in the educational process. Needless to say, psychological, sociological, and just plain human factors, not to mention economics and political considerations, play a significant role in education. In this broader context the linguistic variables turn out to be important, but not necessarily primary. A second comment is addressed primarily to the educators. The answers to your linguistic questions will very rarely be found in textbooks of linguistics. As has been noted above, educators often perceive the use of linguistics as being the adaptation of linguistic findings to educational purposes. The trouble with this is that, as a look at the literature of the field will show, linguistics has developed very few "findings" that everyone in the profession would unquestioningly accept as definitive. Rather, a great deal of the discussion in the literature of linguistics revolves around matters of opinion; thus, one of the fundamental difficulties faced by the non-linguist trying to apply linguistics is, whose linguistics is he to apply? This is particularly apparent in the case of education: educators had barely acquired a certain familiarity with the principles of "structural"

linguistics as applies to education, when they were suddenly confronted with the total obsolescence of structural linguistics within the discipline. They had to readjust to the emergence of a new trend in linguistics that of transformational generative grammar. This, of course, required the revision of all past educational applications of linguistics, and often did not lead to improvement as much as to additional confusion.

In spite of all this, there is no doubt that, given the right circumstances, linguistics does have an important and lasting contribution to make to the development of the language arts. What, then, are the right circumstances? It is evident that one-sided efforts by linguists to "re-educate" the educators have not been conspicuously more successful than the equally one-sided efforts by educators to "incorporate" the latest linguistic achievements into their curricula. What is needed instead of the one-sided approaches is a continuing discourse between the two professions and the closest possible cooperation at all professional levels in the development of approaches and materials.

It is suggested that a fruitful way of bringing about such a cooperative development is to look at the problem in terms of the following questions: What are the skill developments involved in the language arts, and what aspects of linguistics relate to the different skills that language arts curricula attempt to develop? In addition, there is the perennial problem of motivation and here again there are linguistic aspects to the problem. In the following, an attempt will be made to outline some specific suggestions along the lines indicated above. These will include, in addition to motivation, the following areas of skill development: the mechanics of reading (including reading readiness), reading comprehension, vocabulary building, and finally, oral and written expression and composition. These will now be discussed in turn.

Motivation. One of the recurrent themes in all contemporary discussions of education is the problem of motivating pupils to achieve literacy and proficiency in the language arts. The heart of the problem is clearly not linguistic. It is

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~~language~~ ~~are~~ ~~regarded~~ ~~as~~ ~~an~~ ~~attitude~~ ~~of~~ ~~what~~ ~~might~~ ~~be~~ ~~called~~ ~~cultural~~
~~relative~~ ~~to~~ ~~the~~ ~~forms~~ ~~of~~ ~~language~~. That is, they look upon these
~~different~~ ~~forms~~ ~~of~~ ~~language~~ ~~as~~ ~~not~~ ~~in~~ ~~terms~~ ~~of~~ ~~some~~
~~abstract~~ ~~esthetics~~ ~~or~~ ~~logical~~ ~~consistency~~, but
~~rather~~ ~~in~~ ~~terms~~ ~~of~~ ~~the~~ ~~cultural~~ ~~setting~~ ~~of~~ ~~the~~ ~~society~~ ~~that~~ ~~uses~~
~~the~~ ~~language~~. Language is considered neither esthetically more beautiful
~~than~~ ~~other~~ ~~forms~~ ~~of~~ ~~language~~, but rather, it is con-
~~sidered~~ ~~more~~ ~~appropriate~~ ~~for~~ ~~certain~~ ~~social~~ ~~purposes~~. More and more, educators are
~~beginning~~ ~~to~~ ~~realize~~ ~~that~~ ~~the~~ ~~argument~~ ~~of~~ ~~appropriateness~~ ~~is~~ ~~better~~ ~~sued~~
~~than~~ ~~the~~ ~~some~~ ~~traditional~~ ~~esthetic~~ ~~and~~ ~~logical~~ ~~arguments~~.
~~The~~ ~~attitude~~ ~~of~~ ~~cultural~~ ~~relativism~~ ~~that~~ ~~has~~ ~~significant~~
~~implications~~ ~~for~~ ~~education~~ ~~has~~ ~~to~~ ~~do~~ ~~with~~ ~~the~~ ~~non-standard~~ ~~forms~~ ~~of~~ ~~lan-~~
~~guage~~. It is ~~now~~ ~~generally~~ ~~recognized~~ ~~that~~ ~~every~~ ~~form~~ ~~of~~ ~~language~~ ~~is~~
~~valuable~~ ~~and~~ ~~has~~ ~~its~~ ~~own~~ ~~claim~~ ~~to~~ ~~dignity~~ ~~and~~ ~~appropriateness~~ ~~in~~
~~certain~~ ~~social~~ ~~settings~~ ~~and~~ ~~has~~ ~~been~~ ~~made~~ ~~by~~ ~~most~~ ~~linguists~~. With the
~~increasing~~ ~~awareness~~ ~~of~~ ~~the~~ ~~need~~ ~~for~~ ~~cultural~~ ~~pluralism~~ ~~in~~ ~~educa-~~
~~tion~~, ~~and~~ ~~the~~ ~~growing~~ ~~consciousness~~ ~~of~~ ~~the~~ ~~importance~~ ~~of~~ ~~recognizing~~
~~the~~ ~~educational~~ ~~and~~ ~~communicative~~ ~~significance~~ ~~of~~ ~~non-standard~~ ~~forms~~
~~of~~ ~~language~~, the teaching of the language arts must be based on not only an
~~understanding~~ ~~of~~ ~~the~~ ~~importance~~ ~~of~~ ~~the~~ ~~standard~~ ~~language~~ ~~in~~ ~~certain~~ ~~communica-~~
~~tion~~ ~~settings~~, and even more importantly, a recognition that the value
~~of~~ ~~non-standard~~ ~~forms~~ ~~of~~ ~~language~~ ~~do~~ ~~not~~ ~~exclude~~, and may even serve to enhance, the values
~~of~~ ~~the~~ ~~standard~~ ~~forms~~ ~~of~~ ~~language~~.

Reading and writing. What is meant here are the skills in-
 volved in the ~~recognition~~ ~~and~~ ~~production~~ of the individual letters of the alpha-
 bet and the single ~~words~~ ~~sentences~~ that are made up of them. This is con-

different skill from the one involved in the understanding of text of more than sentence length which will be discussed under the heading of "reading comprehension"; it is also considered different from the skill required in composing text of greater than sentence length which will be discussed under the heading of "oral and written expression and composition".

The skills to be discussed under the current heading of "the mechanics of reading and writing" actually fall into two fundamental categories: one is the ability to write and recognize individual letters, which also includes the traditional area of penmanship; the other is the ability to put individual letters together into words, which, of course, coincides with the traditional area of spelling. The amount of work done by linguists on these two areas differs greatly: In the field of letter recognition and penmanship, linguistic work has been fairly trivial; on the other hand, in the area of spelling a great deal of work has been done by linguists under the heading of "phoneme/grapheme correspondences".

First, then, the question of letter recognition and penmanship. As was noted above, neither of these two areas has received much attention from linguists, although it has received attention from scholars in other fields. More specifically, the area of letter recognition has been given a good deal of attention by engineers and other specialists interested in the field of automatic character recognition--that is, the design of electronic equipment which would be capable of automatically recognizing letters and other written and printed symbols for purposes of, for instance, computer input; the field of penmanship has, of course, traditionally been given attention by educators.

In the field of letter recognition, the basic problem seems to be--at least from the point of view of a linguist--what are the distinguishing features of shape by which letters, both handwritten and printed, are recognized and differentiated from each other. This problem is highlighted by the well-known fact that in many alphabets (such as the Roman alphabet used by the English-speaking world) letters

have been discussed much in the linguistic literature, and as a result it is not at all clear for the Roman alphabet, for example, how many variants there are for each of the letters; nor is it clear what the distinctive features are for each variant of each of the letters. And even less perhaps, is known about some of the other alphabets.

In teaching the production of the letters the same two types of problems are encountered. First of all, the decision has to be made as to which variant or variants of each of the letters of a given alphabet should be taught. Usually, in a given school system only one, or at best two, variants are taught--with the result that pupils later have difficulty recognizing other (particularly foreign) variants of these letters. At some stage in the educational process it might be useful to provide pupils with at least a passive knowledge of some of the less common or foreign variants of the letters, in order to enable them to recognize these as they come across them later in life. So much about the variants. Distinctive features play a part, albeit indirectly, in the teaching of writing in most school systems, since in most places penmanship is taught in terms of the strokes and angles that make up the letters. And while these strokes and angles are the result rather of a tradition of penmanship than of thorough linguistic or other analysis, it is clear that they more or less correspond to the distinctive features of which the handwritten letters are made up.

Turning now to the second major question involved in the mechanics of reading and writing, namely, that of correctly assembling the letters into words, which as we all know is the fundamental problem in the art of spelling, it has already been noted above that linguists have given a great deal of attention to this under the heading "phoneme/grapheme correspondences". A major portion of the linguistic literature devoted to questions of reading, such as C. C. Fries's book Linguistics and Reading, deals with this. Linguists have attempted to point out not only the obvious correspondences between speech and writing (such as the well-known regular

can be written and printed in more than one way: thus, more than one font (such as Roman or italics) can be used in print; more than one tradition may exist with respect to handwriting. Thus, for instance, there are at least two traditions for writing the capital letter "A": 1. approximate the Roman font in print, the other the italic. The two differ as follows: in the first of these, the capital "A" is written by first making an arch that stretches all the way up to the top of the space provided for the letter, and then putting a crossbar midway through the arch; in the second tradition, the capital "A" is simply a larger version of the lower case "a". Note that the arch used in the first tradition can be made in at least three different ways: it can be a pointed arch, it can be rounded, or it can be squared off. These different shapes of the capital letter "A" are shown below:



The above example illustrates some of the difficulties in trying to determine what are the distinctive characteristics of the shape of the letters. It is clear that most users of the Roman alphabet would agree that all of the shapes discussed above are examples of the capital letter "A". It is not at all clear, however, how the same set of distinctive features could be assigned to all of them. It seems that for all of the shapes written in the Roman tradition a common set of features can be assigned: an arch (made in three different possible ways) and a crossbar; likewise, a common set of features can be assigned to the "A" written in the italic tradition. The shapes written according to the two different traditions seem to have no distinctive features in common; at the same time, they are by most users of the Roman alphabet clearly recognized as variants of the same letter, namely the capital "A".

Two basic questions seem to emerge from the above in regard to the recognition of the shapes of the letters: first, how many variant shapes are there for each given letter, lower case or capital, in a given alphabet; secondly, what are the distinctive features of each of the variant shapes. Neither of these questions

pronunciations of the "open" and "closed" vowel letters), but also some of the less obvious regularities (such as the more complex rules relating letter combinations such as ph, th, ea, ie, ei, to their pronunciation and conversely). One important general observation has been made in this connection by all linguists, namely that a given phonological segment may correspond not only to a single letter but to a given standardized letter combination. The term grapheme has by some linguists, then, been applied not only to individual letters, but also to such standardized combinations as, for instance, the one previously mentioned, or additional ones such as gh, qu, etc. Obviously, these observations have not been made only by linguists--those educators who have been interested in the so-called phonics approach to the teaching of reading and writing have certainly been aware of the questions talked about here. Linguists will, however, claim--and perhaps with some justification--that they have treated these matters more systematically than others who have been interested in them.

A very important problem which arises in this connection has until recently been neglected by both linguists and educators. In talking about "phoneme/grapheme correspondences", the problem has usually been stated in terms of the correspondence of certain letters or letter combinations to a given uniform set of phonological segments, namely, those corresponding to a careful pronunciation of standard English. Clearly, such a limited conception of the correspondences is pedagogically useful primarily when dealing with a pupil population that speaks a careful version of standard English--and this applies only to a very small portion of the enrollment in the public schools. What is needed here, of course, is an awareness of the many dialects of English that are spoken by pupils coming into the schools, and what is further needed is to make allowances for dialectal differences in the teaching of reading as related to pronunciation. In addition, it is necessary to realize that the teaching of standard English pronunciations is one task, and the teaching of reading and writing another--and while both tasks may be necessary and appropriate in the early stages

of education, they should certainly not be confused with each other.

Reading comprehension. This area of skill development has to do with the pupil's ability to understand not just individual words but sentences, textual passages, and whole texts. All specialists agree that the skills required here are rather different from those discussed in the preceding section. What is needed here is not the recognition of individual letters and words, but rather the ability to see the connections between words, as well as the broader connections between sentences, and the ability to reconstruct from these individual components and their connections a general understanding of the methods conveyed by larger textual units such as sentences, textual passages, and entire texts.

From a linguistic standpoint, the skills involved here can be characterized as having to do with an understanding of the meaning of linguistic units, as well as of the content structure of texts and textual passages. Two subfields of linguistics are concerned with this: the study of meaning, which most linguists and many others agree on calling semantics (but linguists disagree as to exactly how it fits into the discipline as a whole); and the study of the structure of the content of text, which some call textual analysis, others discourse analysis and still others content analysis (and not all linguists agree on whether or not it even belongs in the field of linguistics). Irrespective of the linguistic dispute as to the status of these subfields, it is clear that they have definite bearing on the development of reading comprehension skills, and they will therefore be discussed here. A third subfield of linguistics, that of syntax, is by many considered highly relevant to reading comprehension; however, it is the view held here that syntax is secondary to meaning and structure of content as a factor in reading comprehension, and the emphasis will consequently be on semantics and textual analysis.

In the area of semantics, it is considered important to distinguish between grammatical and lexical meaning. Grammatical meaning is the meaning of grammatical categories such as the tenses or numbers that are present in a language like English.

Lexical meaning, on the other hand, is the meaning of lexical units--that is, of the terms that make up the vocabulary of a language. Both of these varieties of meaning are important factors in the development of reading comprehension skills.

An example of the significance of grammatical meanings in reading comprehension is the role that the understanding of tense meanings plays in the comprehension of the content of English sentences. Thus, clearly, sentences containing a past tense predicate such as "I went" refer to a different set of conditions affecting the event than sentences containing a perfect tense predicate such as "I have gone". The significance of tense meanings is even more apparent in the case of compound sentences in which the tense meaning of the subordinate clause is related to that of the main clause, such as for instance in "after he had arrived there things began looking up". The importance attributed to grammatical meanings here may be disputed on the grounds that all native speakers of English share the same grammatical categories and therefore can be expected to understand the appropriate grammatical meanings. Two important arguments can be brought up against this view. The first of these is that all varieties of English do not have the same grammatical categories; recent research on the non-standard variety of English spoken by urban Blacks in the United States has shown that this form of speech does not have the same system of verbal tenses as standard English but rather has its own subtle and complex way of referring to different time relations (called "phases" by Joan Fickett who has done the pioneering research on this). The second argument is that even when a particular variety of English has the same system of grammatical categories, and therefore the same or similar grammatical meanings, as standard English, it is still very often the case that the colloquial version of English--standard or otherwise--does not use all of the grammatical categories that occur in the literary version of English (thus, for instance, such grammatical forms as the pluperfect tense or the subjunctive mood are extremely rare, if indeed found at all, in colloquial English). Thus, the proper understanding of grammatical meanings has to be considered a

significant factor in the overall skill of reading comprehension.

By contrast with the question of grammatical meaning, there has been no disagreement as to the significance of lexical meaning for reading comprehension. This is particularly true if, as many educators have pointed out, the significance of shared cultural content and life experience is taken into account in the preparation of reading materials. From a linguistic standpoint, differences in cultural content and life experience are reflected primarily in the lexical meanings contained in the text. Here again, dialect and style differences are at least as significant as in the area of grammatical meaning. A detailed discussion of lexical units and lexical meanings will be deferred until the next section dealing with vocabulary building, an area in which lexical factors clearly are of predominant significance.

The role of the structure of the content of text is beyond doubt of primary significance in reading comprehension. While a number of linguists and other specialists tend to identify the structure of content with syntax, in the point of view underlying these materials these two factors are considered clearly separate. It is believed that the content structure of a text is at least potentially independent of its syntactic structure. This is based on the common observation that the same portion of content or plot can be expressed by more than one type of sentence. Thus, for instance, a given action can be expressed by either an active or a passive sentence; likewise, a description may be expressed by either a predominantly verbal or a predominantly nominal sentence.

Textual analysis deals primarily with the determination of the progression of the plot in the case of narrative texts, with that of the unfolding of an argument in the case of expository texts. Plot and argument are of course not the only elements in the structure of a text, but they do appear to be the most dynamic ones. Other elements of the structure of text seem to be the characterizations of personages and the descriptions of settings, and one of the interesting questions about the structure of a text is the way in which these elements are interrelated with the dynamic

elements mentioned above. Clearly, only when these elements and their inter-relationships are well understood can it be said that the content of a text is fully comprehended.

Unfortunately, while both linguists and non-linguists (such as, for instance, folklorists and cognitive anthropologists as well as literary scholars) are becoming increasingly interested in textual analysis, work in this field is still pretty much in its beginnings. In addition, educators have on the whole not yet become aware either of the importance of this field or of the work done in it, so that what few results have been obtained so far have not yet been adapted to the needs of education.

Vocabulary building. This area of skill development has traditionally received a great deal of emphasis not only in primary and secondary school education but also in adult education and in the average American English speaker's efforts at linguistic self-improvement. As a matter of fact, it is not unfair to say that vocabulary building is being given more than its proportionate share of attention in American education. This over-emphasis on vocabulary development is at least in part due to two misconceptions about the place of the vocabulary in the overall compass of language.

One of these is the commonly held assumption that the size of the vocabulary somehow reflects the evolutionary standing of a language and thus the cultural advancement of its speakers. Thus, it is believed that so-called "primitive" languages are characterized by small vocabularies (a really "primitive" language might not have any more than four to five hundred words), while "civilized" languages of course excel by the very great size of their vocabularies (in the tens or hundreds of thousands). Linguistic work on languages considered "primitive", such as those of American Indians, Africans, or Oceanic Island people, has shown that this conception of vocabulary size is a myth; linguists not only agree but have been able to show that every language has exactly as large a vocabulary as its speech community needs--that is, whenever

new terms are needed by the speakers of a language, they are either created or borrowed in line with requirements. Nevertheless, this notion of the size of the vocabulary has persisted in the thinking of many educated speakers of European languages; it has even been extended to apply to different categories of speakers within the same speech community. Thus, it is commonly believed that one of the marks of the so-called "culturally deprived" child is the lack of an adequate vocabulary--such children are supposed to have significantly smaller vocabularies than their more fortunate age-mates; and comparisons are occasionally made between "culturally deprived" children and "primitives".

An equally common misconception is that a person's command of a language can be measured exclusively or primarily by the amount of vocabulary he knows. This is based on the broader conception that a language essentially consists of "words", and that, therefore, the more words one knows, the better one masters the language. What is forgotten here is, of course, the importance of grammatical competence: in order to have adequate command of a language, one must know not only its vocabulary but also its grammar. This latter misconception, incidentally, is at the root of the excessive significance given to vocabulary in many of the evaluative tests used in education and elsewhere.

While the importance of vocabulary building should thus not be overestimated, it should not be underestimated, either. Although the vocabulary is by no means all there is to a language, command of the vocabulary is an extraordinarily important language skill and must be fostered at all levels of education. As can be seen from the discussion in the preceding paragraph, the problems encountered in this area of skill development do not stem from any neglect of its significance. Rather, they stem from a lack of understanding of the linguistic characteristics of the vocabulary and of its role in the overall framework of a language.

The vocabulary of a language corresponds to what in these materials has been referred to as the lexicon as opposed to the grammar of a language. Vocabulary building

thus is equivalent to increasing one's command of the lexicon. What linguistics can contribute to the development of a successful pedagogy for achieving such an increased command is then a better understanding of the nature and function of the lexicon.

From a functional point of view, it should first of all be noted that the lexicon of a language is much more directly related to the culture of its speakers than is the grammar. This is, of course, inherent in the nature of the lexical dimension which constitutes a system of reference to culturally recognized phenomena--thus, the terms by which these phenomena are named are clearly directly related to the culture which recognizes them. It is to be noted, however, that this close relation exists not only between a given lexicon and a given culture, but also between a given lexicon and a given "sub-culture". That is, within a larger speech community and its culture there can be differentiated a number of sub-communities which correspond linguistically to dialects and culturally to sub-cultures. And very often the most conspicuous differences between these sub-communities are in terms of the lexicon: Thus, different dialect areas of the American English speech community may be characterized by different regional terms for the same cultural item, such as "soda pop", "soft drink", "tonic", all referring to the same beverage; or, speech communities may differ by the use as opposed to the non-use of terms associated with sub-cultural items limited to a particular region or sub-group within the major speech community, such as the term "grits" and the associated food item which are limited to a regional and social sub-community of the greater American English speech community. From the standpoint of the language arts, both the cultural and the sub-cultural differences in lexicon are significant; the extent to which one or the other of these prevails will depend on whether or not the student body is differentiated only dialectally and sub-culturally or also linguistically and culturally--that is, whether education must be developed on only a multi-dialectal base, or on a multi-lingual one.

In regard to the structure of a lexicon, there are two basic and obvious problems, neither of which have been faced squarely even by linguists, much less by educators. The first of these is the problem of the units of the lexicon, the second is that of the categorization of these units into classes, hierarchic or otherwise.

In regard to the units of the lexicon, even many linguists have not yet overcome the popular misconception that the elements of the vocabulary (that is, the units of the lexicon) are "words". As is stated in some detail elsewhere in these materials (in the section on "the lexical dimension"), words are units of the grammatical dimension, more specifically of its morphemic level. The units of the lexical dimension are lexical units of various orders of complexity; lexical units often consist of single words, but almost equally often consist of more than one word and in a good many languages may consist of less than one word (in German, for instance, many compounds which grammatically have to be considered single words, lexically can be shown to consist of more than one lexical unit). The confusion of lexical units with words is most unfortunate not only from the standpoint of linguistic analysis but also from the standpoint of increasing the command of the lexicon; what the pupil has to learn in enhancing his knowledge of the vocabulary are precisely lexical units regardless of whether or not they consist of single words. A very clear-cut example of this is afforded by the technical terminologies which in many languages abound with multi-word lexical units--English examples of these are such terms as "connecting rod", "public relations expert", etc. In a word, vocabulary building has to be designed in terms of lexical units rather than in terms of grammatical words.

The situation with regard to the categorization of lexical units is somewhat better. Not only linguists but others as well, including educators, agree that the units of the lexicon--however defined--fall into broad categories in accord with the domains in which they are used. These domains can be defined in terms of

the aspects of culture--daily life or otherwise--to which the terms refer such as kitchen terms, mechanical terms, medical terms, etc. In designing materials for vocabulary building, educators have consistently taken domains into consideration by gearing units towards aspects of everyday life such as the home, the school, the school. The mistakes that have been made in this respect consist not so much in the neglect of the notion of domains, as in the use of domains from one population when the student population belongs to another sub-culture or culture--that is, assuming that the domains of mainstream American culture apply to every cultural community within the United States.

Another categorization of the units of the lexicon, related to the notion of domains, is by means of taxonomies. A taxonomy is a classification in terms of a hierarchy of terms of narrower and broader scope. Terms of broader scope serve to designate the categories into which are fitted the terms of narrower scope that are subsumed under the broader terms; thus, for instance, a broad term such as "tools" will be used to create a category under which are subsumed narrower terms such as "pliers", "hammer", "saw", etc. Most members of European speech communities are primarily aware of what might be called scientific taxonomies, that is, the kind of taxonomies that are created by using broader and narrower scientific terms. The classical example of such a taxonomy is the one used by botanists to categorize plants. More recently, anthropologists interested in using the lexicon as a means for studying culture have noted the significance of so-called 'folk taxonomies' that is, the taxonomies used by ordinary speakers of a language for the informal categorization of the lexical units they are using. An example of folk taxonomy as opposed to scientific taxonomy would be the categorization of animals in colloquial American English not into vertebrates, invertebrates, etc., but into domestic animals, zoo animals, wild animals, etc. The importance of folk taxonomies as opposed to scientific taxonomies lies in the fact that the former are based on ordinary everyday usage and thus seem to reflect more accurately the way in which



The following table shows the results of the tests conducted on the various specimens. The specimens were tested under the following conditions: (1) at room temperature, (2) at 100 degrees Fahrenheit, and (3) at 200 degrees Fahrenheit. The results are given in the following table:

Specimen	Room Temperature	100 Degrees F	200 Degrees F
Specimen A	1000	800	600
Specimen B	1200	900	700
Specimen C	1100	850	650
Specimen D	1300	1000	800
Specimen E	1400	1100	900
Specimen F	1500	1200	1000
Specimen G	1600	1300	1100
Specimen H	1700	1400	1200
Specimen I	1800	1500	1300
Specimen J	1900	1600	1400
Specimen K	2000	1700	1500
Specimen L	2100	1800	1600
Specimen M	2200	1900	1700
Specimen N	2300	2000	1800
Specimen O	2400	2100	1900
Specimen P	2500	2200	2000
Specimen Q	2600	2300	2100
Specimen R	2700	2400	2200
Specimen S	2800	2500	2300
Specimen T	2900	2600	2400
Specimen U	3000	2700	2500
Specimen V	3100	2800	2600
Specimen W	3200	2900	2700
Specimen X	3300	3000	2800
Specimen Y	3400	3100	2900
Specimen Z	3500	3200	3000

RESULTS OF TESTS ON SPECIMENS AT ROOM TEMPERATURE

The results of the tests on specimens at room temperature are given in the following table:

Specimen	Room Temperature
Specimen A	1000
Specimen B	1200
Specimen C	1100
Specimen D	1300
Specimen E	1400
Specimen F	1500
Specimen G	1600
Specimen H	1700
Specimen I	1800
Specimen J	1900
Specimen K	2000
Specimen L	2100
Specimen M	2200
Specimen N	2300
Specimen O	2400
Specimen P	2500
Specimen Q	2600
Specimen R	2700
Specimen S	2800
Specimen T	2900
Specimen U	3000
Specimen V	3100
Specimen W	3200
Specimen X	3300
Specimen Y	3400
Specimen Z	3500

The following table shows the results of the tests conducted on the various specimens. The specimens were tested under the following conditions: (1) at room temperature, (2) at 100 degrees Fahrenheit, and (3) at 200 degrees Fahrenheit. The results are given in the following table:

Specimen	Room Temperature	100 Degrees F	200 Degrees F
Specimen A	1000	800	600
Specimen B	1200	900	700
Specimen C	1100	850	650
Specimen D	1300	1000	800
Specimen E	1400	1100	900
Specimen F	1500	1200	1000
Specimen G	1600	1300	1100
Specimen H	1700	1400	1200
Specimen I	1800	1500	1300
Specimen J	1900	1600	1400
Specimen K	2000	1700	1500
Specimen L	2100	1800	1600
Specimen M	2200	1900	1700
Specimen N	2300	2000	1800
Specimen O	2400	2100	1900
Specimen P	2500	2200	2000
Specimen Q	2600	2300	2100
Specimen R	2700	2400	2200
Specimen S	2800	2500	2300
Specimen T	2900	2600	2400
Specimen U	3000	2700	2500
Specimen V	3100	2800	2600
Specimen W	3200	2900	2700
Specimen X	3300	3000	2800
Specimen Y	3400	3100	2900
Specimen Z	3500	3200	3000

... significant part. It is because of this importance ... and also stylistics) plays a significant part in the ... and composition skills.

... be defined as the study of sentence structure; clearly, ... the creation of texts will be facilitated by ... are put together. In terms of the point of view ... the important thing here is not so much that the under- ... to the development of these skills be ... rather, the important thing is that it be ... be placed on those aspects of syntax that ... than those that might be of theoretical interest. ... are those syntactic constructions that are ... in speech. Finally, it must be stressed that the ability ... can be acquired much more readily if the ... these constructions are properly understood.

... of the importance of stylistics in this area of skill ... be greater than that of syntax. While syn- ... of sentences, stylistics deals with the way in ... a short utterance or a longish text--is ... of the important things to be learned in oral and ... the appropriate presentation of what one has

... used by linguists in at least two senses, both of which ... of these is style in the sense of a particular form ... language used in a certain social setting. In this ... of colloquial style, lofty style, technical style, ... has been used to designate the particular way in ... are used in order to express a particular content--

that is, style in the more particular sense of ways of presenting one's message. It is in the second sense that one can speak of good or bad style, or of literary style, including such notions as the style of a given period or a given author. It is usually only style in the second sense that is considered to be the subject matter of stylistics. Style in the first sense more properly belongs with a discussion of the different social varieties of language and will therefore be considered in connection with matters of standard language theory further below.

Most linguists who have become interested in stylistics have focused upon the topic/comment tradition as one of the important factors. The notions of topic and comment are not new; they go back to traditional rhetoric and have been commonly used in composition teaching for many generations. Linguists have only recently begun paying attention to them; their contribution has been, on the one hand, to make these notions more precise or perhaps more objective, and on the other hand, to relate them to the notions used for dealing with language in general.

Topic and comment have by some linguists been redefined in terms of the way in which the information is presented in an utterance. From this point of view, the information conveyed can be laid out along a scale: one end of the scale is occupied by information that is in some way old and well known; the other end of the scale is occupied by information that is new and in some ways unforeseen--and of course, there are many gradations in between. The first end of this scale is the topic, the second end is the comment. The way these two fit together is that the topic constitutes the type of information that sets the stage, so to speak, for the main event of the message which is conveyed by the comment.

These notions can best be illustrated by showing how the same information can be presented in different ways by letting different portions of the message serve as topic and comment respectively. Thus, for instance, in the utterance "Shakespeare wrote *The Tempest*", the utterance portion "Shakespeare" is topic, and the utterance portion "*The Tempest*" is comment. In the utterance "*The Tempest* was written by

Shakespeare", in which essentially the same information is conveyed, the topic and comment functions of the portions of the message are reversed: here, "The Tempest" is topic, and "Shakespeare" is comment. Clearly, in the first utterance the message is presented in such a way that the information about Shakespeare sets the stage where the information about The Tempest is the core of the message, whereas in the second utterance the opposite relation holds.

As has already been noted, linguists are also interested in a second problem area in connection with the topic/comment relation. This is the question of what has been called the "devices of the language" that are used to express these relations. In the examples given in the preceding paragraph, the major device for expressing the topic/comment relation was word order combined with the use of grammatical categories. That is, the topic portion in both examples was that which occupied the initial position in the utterance, and the comment portion that which occupied the final position. In order to achieve this manipulation of word order without changing the nature of the information conveyed, in a language like English it is necessary to switch from one term of the grammatical category of voice to the other, that is, to change an active construction into a passive one. This is, however, not the only possible way in which the topic/comment relation can be expressed. Linguists have noted that, for instance, the use of a highly unusual and explicit lexical unit may attract the comment function to an utterance portion which is located in the topic position. Thus, for instance, compare the two utterances "two men were talking" and "two extraordinarily well-dressed gentlemen were talking". In both utterances, the subject portions, namely "two men" and "two extraordinarily well-dressed gentlemen" are in the topic position, that is, at the beginning of the utterance. However, in the first of the two examples the subject "two men" remains topic and the predicate "were talking" functions as comment. In the second example, on the other hand, it appears that the subject portion "two extraordinarily well-dressed gentlemen" has acquired the comment function because of the extraordinary

amount of information it conveys thanks to its rather complex and explicit lexical structure.

The importance of expressive and composition skills for mastering stylistic factors such as the topic/comment relation need not be belabored. It is, after all, the major aim of the development of these skills to enable a person to present the information that he has to impart in the way best calculated to affect his audience favorably. That is, the presentation of the information is one of the essential features in oral and written expression and composition. The role of textual analysis in the development of expressive and composition skills is similar to its previously discussed one in comprehension. Both the structure of the plot and narrative and the structure of the argument in exposition are important factors in the composition of the text. Clearly, to compose a narrative text, it helps to know something about the unfolding of the plot; clearly, in order to compose an expository text, it helps to know something about the development of an argument.

Finally, a few words about the role of standard language theory in the development of expressive and composition skills.

The first point to be made here is that expressive and composition skills are not to be confused with a command of the standard language. While clearly certain types of texts (such as, for instance, scientific, legal, or bureaucratic) are in most speech communities limited to the standard language, other types of texts (such as folkloric, literary, entertainment) are often composed in other than standard dialects. Consequently, it is perfectly reasonable to consider the development of expressive and composition skills in a form of speech other than the standard. At the same time, because of the importance of the kinds of texts that are usually limited to the standard language and because of the general importance of the standard language in most speech communities, its command will significantly contribute to the development of expressive and composition skills. This is particularly true when two considerations closely linked to the notion of standard language are taken

into account.

The first of these has to do with the matter of speech styles mentioned earlier. These can roughly be defined as different forms of expression corresponding to different types of communicative needs; thus, formal, informal, technical, literary, and other speech styles can be correlated with corresponding speech situations and communicative needs. Clearly, in the development of expressive and composition skills, an understanding of different speech styles and of their appropriate use in the creation of texts will be of great help. Of particular importance will be an understanding of the structural differences between different styles, as well as of the culturally appropriate situations and communicative conditions under which the different styles be used. Thus, the use of a highly formal style for a family letter, or the use of a highly informal style for the exposition of a highly structured logical argument, is not likely to lead to the creation of a good piece of writing.

The second important consideration relating to standard language has to do with the notion of intellectualization. This notion was developed by the standard language theorists of the Prague School of the 1930's; it has to do with the tendency of a standard language to develop increasingly accurate, more highly structured forms of expression. This is not to say that such forms of expression are not possible in other varieties of a language than the standard, but merely to stress the fact that in a standard language these tend to develop and play an increasingly more significant part. The phenomenon of intellectualization manifests itself in various aspects of a standard language, but primarily in those of the lexicon and the syntax. In the area of the lexicon, intellectualization manifests itself by the creation of extensive terminologies--particularly technical, legal, bureaucratic, and other terminologies needed by a complex society with a complex cultural pattern. In the area of syntax, intellectualization manifests itself by the development of complex syntactic patterns, such as the creation of varied forms of sentence

coordination and subordination by means of a variety of connective expressions such as conjunctions. Thus, while in non-standard forms of language it is very common to find simple coordinate sentences linked by connective expressions such as "and then...and then", a standard language text very often contains complexly structured sentences coordinated and subordinated by means of a variety of conjunctions. Clearly both the lexical and the syntactic aspects of intellectualization have significant bearing on the development of expressive and composition skills, since written texts in the standard language are expected to exhibit these features of intellectualization.

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The above has been an attempt to outline some of the linguistic factors that enter into the development of language art skills. Clearly, they must be taken into account in some way in both curriculum development and the actual conduct of classroom teaching. This is not intended to imply, of course, that the teaching of linguistics should now become a part of the language arts curriculum. Rather, what is suggested is that linguistic principles be taken into account in the development of language arts curricula and materials as well as in the training of the teachers. This cannot be achieved by either educators alone or linguists alone but must be the result of a sustained cooperative effort between the two professions. Finally, one thing that must be kept in mind in considering the possible application of linguistic principles to the development of language art skills is that very often the areas of linguistics that are of greatest relevance to language arts development are also those which have received the least attention within linguistics. This is certainly true of the areas of the structure of the lexicon, the study of semantics, textual analysis, stylistics, standard language theory--and the importance that these have in the development of language art skills should have become evident in the preceding passages.