In addressing selected aspects of the language arts from the context of an integrative language paradigm, this paper focuses on the results of three studies recently completed in Manitoba, which help to shed some light on three modes of expression—dictation, independent writing, and retelling—in the primary grades. The first part of the paper discusses the background and need for the studies—their purposes, methods and procedures, findings, and conclusions and implications. The second part of the paper is a response by Linda Phillips-Riggs, which outlines the main points of Froese's paper and discusses the weaknesses of his paper and of the three studies cited. Some research ideas are presented, followed by a conclusion. (EL)
INTRODUCTION

Much interest has been generated over the last few years in "integrating" the language arts (Mandel, 1980; Bushing & Schwartz, 1983) and other related notions such as "holistic view of language", "pragmatics", "communicative competence", and "process or student-centered models". The reasons for these changes from a skills oriented approach to an integrated approach are many but are aptly summarized by Shuy (1981): Research shows that good language learners begin with a function, a need to get something done with language, and move gradually toward acquiring the forms which reveal that function. They learn holistically, not by isolated skills ... we have developed a tradition of teaching reading, writing, and foreign language which goes in just the opposite direction--from surface to deep (structure), from form to function, from part to whole". At the curricular level the manifestation of the paradigm shift takes the following form: The Language Arts Guide...
in the Province of Manitoba explicitly states that "integration is the aim of this guide". This paper, consequently, addresses selected aspects of the language arts from the context of an integrative language paradigm. The assumption is that both teaching and assessment should, when possible, be consistent with such a view.

More specifically, this paper primarily focusses on the results of three studies recently completed in Manitoba (Straw, 1982; Froese, 1983; Hay, 1984) which help to shed some light on three modes of expression—dictation, independent writing, and retelling—in the primary grades. All three studies used common quantitative language measures such as mean T-unit length, mean number of dependent clauses per T-unit, and total number of words per composition as well as some qualitative measures such as general impression scoring, aspects of story (i.e. characterization, plot, initiating events, etc.). These units allow comparisons across modes of expression, between syntactic fluency and rhetorical quality, and across grade levels.

BACKGROUND & NEED FOR RESEARCH

The initial interest in these studies stemmed from the author's preference for an experience-based approach to teaching language (Braun & Froese, 1971), a proposed developmental progression in understanding how children learned to write (Froese, 1978), and subsequently a study of first-grader's dictation, independent writing, and
retelling. A graduate student, Teresa Hay, extended the study to the second grade and controlled for the student's cognitive level (conserver or nonconserver) as well as memory load (story generation with aid of pictures versus retelling without pictures). And Stan Straw, a colleague, conducted the 1982 Manitoba Writing Assessment Program from which the third-grade results are gleaned. The Writing Assessment contained data on both story writing and writing directions as well as on general impression marking (in addition to other data not discussed here).

Perhaps one of the most startling reminders of the interrelationship among the language arts and especially the close linkage between writing and speaking was Loban's (1976) observation that "subjects tend to speak and write in units of virtually the same average length." Unfortunately, Loban did not gather writing samples below grade four. The paucity of research in writing at the primary grade level was also noted by King & Rentel (1979) at this time. By then Barrit & Kroll (1978) were calling for "cognitive-developmental" research in composing and Graves (1975) was well into his process-oriented type of investigations. As late as 1981, Stotsky (NCTE, Boston) lamented that the studies on the relationship between reading and writing were basically of only three types: correlational, studies examining the influence of writing on reading, and vice-versa.

In Britain, the relationship between talking and
writing was explored by Briton, et al (1967) and in the U.S.A. James Moffett expounded similar views.

Most recently, Moffett (1983) explained the relationship among thinking, writing, and reading in this manner: "Reading assimilates one person's composed inner speech into another person's on-going inner stream so that one's composition temporarily restructures the other's consciousness. Writing temporarily restructures one's own consciousness as one focuses, edits, and revises the inner stream so as to act on another's."

The above mentioned interrelationships naturally lead to other questions such as those raised by Morris (1981): "Should writing be viewed as a secondary language process; Should reading and writing be thought of as complementary; Should writing be viewed as a beneficial introduction to learning to read; Does there exist in the minds of beginning readers a developing conceptual knowledge of wordness that underlies their ability both to read and spell words?"

Combined, these theorizations, speculations, and observations seemed to suggest that while an interrelationship was commonly assumed, very little systematic and descriptive data existed to relate all four language processes—speaking, writing, reading, and listening—especially in the primary grades. With this in mind, the present study was devised to provide information about children's ability to dictate, to write
independently, to retell a story they had heard, and to comprehend (in an unaided manner) a story read to them.

STUDY ONE

PURPOSE

The intent of this study was to examine the relationship among three expressive language modes and to try to understand better the process of aural comprehension in the first-grade. The student at this level of development is becoming facile with oral language but still has many obstacles to overcome in recording ideas on paper. While the child may have the fine motor skills to make the letter forms, the process of keeping ideas in the "mind's eye" while attempting to write them is tedious and requires great concentration. In addition, the student at this stage has some difficulty forming some letter and the concept of "sentence"--writing in manageable units separated by punctuation--is a rather vague notion.

Based on this perspective the present study asked the following questions:
1. In terms of common quantitative language units (mean words per t-unit, mean number of dependent clauses, words per maze, mean number of dependent clauses per t-unit, and length in words) how do the three modes--dictation, independent writing, and retelling compare?
2. How may the aural comprehension elements (knowledge of character, events, plot) in student's retelling transcripts
be described and compared both with each other and with the t-unit analysis?

METHODS & PROCEDURES

Initially 40 first-grade subjects, 10 from each of four elementary schools were drawn from one suburban Winnipeg school division on the basis of their beginning writing abilities (i.e. they could write 2 or 3 statements independently), but for the statistical analysis only the 19 complete protocols were used.

Arrangements were made for two graduate students to record the dictations (original to student, carbon copy for study), to read a story to students, and to hear the stories retold (these were tape-recorded for transcription purposes). The stories used were specially written to a common story structure and were read by one examiner and retold to another examiner in an adjacent room. While the general procedure for collecting the independent writing samples were discussed with classroom teachers, the specific motivation (i.e. pictures, experiences, etc.) and production was left under their care. One writing sample was to be collected every other week during the period February 1st to March 26th. Dictations were taken on alternate weeks between January 25 and March 12th. The story reading and retelling was used as the "ice breaker" at the beginning of the study to allow the graduate
students to meet with the subjects individually and the same procedure was repeated at the end of the study. Examiners were asked to keep anecdotal notes with regards to individual subject's reactions to the situation throughout the experimental period. In general the procedures for collecting the language samples were patterned after those employed by Loban (1976) and King & Rentel (1981). The complete protocols contained four dictation samples, three independent writing samples, and two retelling samples.

After the data were collected, the oral retellings were transcribed, the dictations were analyzed for T-units, dependent clauses, mazes, and number of words. The retellings were also assessed using the RMI Retelling Guide (Burke & Goodman, 1972) to indicate how well the student retold character (recall and development), event, and plot information. This was taken as the measure of unaided aural comprehension.

FINDINGS & DISCUSSION

In order to compare the first three modes of language expression—dictation, independent writing, and retelling—factorial analysis of variance with repeated measures (BMD02V) were used and trials were collapsed within modes. Only two instances of statistically significant mode effects were noted: For words/maze, $F=15.39$, $df=2,10,$
p = .0009 and for words/story, F = 5.03, df = 2,10, p = .0308.

Since the purpose of the study was to provide descriptive information, the means for the various language measures are presented in Table 1.

**TABLE 1**

**DICTATION, INDEPENDENT WRITING, & RETELLING COMPARISONS**

(MEANS)

<table>
<thead>
<tr>
<th></th>
<th>Dictation</th>
<th>Ind. Writing</th>
<th>Retelling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Words/T-unit</td>
<td>7.846</td>
<td>6.409</td>
<td>7.250</td>
</tr>
<tr>
<td>Mean Dep.Clauses</td>
<td>1.145</td>
<td>.281</td>
<td>1.474</td>
</tr>
<tr>
<td>Words/maze</td>
<td>.280</td>
<td>.375</td>
<td>12.310</td>
</tr>
<tr>
<td>Mean DC/T-unit</td>
<td>.100</td>
<td>.070</td>
<td>.084</td>
</tr>
<tr>
<td>Total Words</td>
<td>80.110</td>
<td>22.030</td>
<td>105.600</td>
</tr>
</tbody>
</table>

The second question dealt with the descriptive aspects of aural comprehension and the interrelationship of the units assessed. Correlational analysis were used for this portion of the study. Table 2 shows the breakdown for Retelling 1 (completed before the other data were collected) and Retelling 2 which terminated the study. The two analysis show essentially the same results—in terms of normal comprehension questions, the total percentages are low—36.3 percent for Retelling 1 and 19.3 percent for Retelling 2. Naturally these are indicators of unaided aural comprehension and should therefore not be directly equated with normally cued comprehension (i.e. via
questions or choices).

TABLE 2
AURAL COMPREHENSION - BASED ON-RETELING
(IN PERCENTAGES)

<table>
<thead>
<tr>
<th></th>
<th>Retelling 1</th>
<th>Retelling 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Character (Recall)</td>
<td>9.789</td>
<td>2.421</td>
</tr>
<tr>
<td>Character (Development)</td>
<td>2.526</td>
<td>4.211</td>
</tr>
<tr>
<td>Events</td>
<td>13.000</td>
<td>8.158</td>
</tr>
<tr>
<td>Plot</td>
<td>11.000</td>
<td>3.947</td>
</tr>
<tr>
<td>Total</td>
<td>36.316</td>
<td>19.263</td>
</tr>
</tbody>
</table>

Table 3 shows the correlational analysis. It becomes evident that "events" was the best predictor of TOTAL COMPREHENSION (r=.98 and .92) and that the identification of "plot" followed closely behind (r=.94 and .88). Since the traditional measures of language complexity such as T-units have been criticized (Crowhurst, 1983) as not necessarily being related to quality in compositions, an analysis was undertaken to compare the combined Retelling scores (measure of complexity) with the Total Comprehension (measure of comprehension quality). The resulting significant correlation of 0.62 (df=17,p<.05) indicated that when using these measures there was a moderate relationship between these quantitative and qualitative measures.
TABLE 3

INTERRELATIONSHIPS OF AURAL COMPREHENSION MEASURES
(CORRELATION COEFFICIENTS)

<table>
<thead>
<tr>
<th></th>
<th>Retelling 1</th>
<th>Retelling 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Character (recall) vs Total</td>
<td>.86</td>
<td>.44</td>
</tr>
<tr>
<td>Character (devel.) vs Total</td>
<td>.87</td>
<td>.65</td>
</tr>
<tr>
<td>Events vs Total</td>
<td>.98</td>
<td>.92</td>
</tr>
<tr>
<td>Plot vs Total</td>
<td>.94</td>
<td>.88</td>
</tr>
<tr>
<td>Events vs Plot</td>
<td>.89</td>
<td>.72</td>
</tr>
<tr>
<td>Charac (r) vs Charac (d)</td>
<td>.64</td>
<td>.30</td>
</tr>
<tr>
<td>T-units (comb.) vs Total</td>
<td></td>
<td>.62</td>
</tr>
</tbody>
</table>

CONCLUSIONS & IMPLICATIONS

From the data presented one is lead to conclude that indeed there is little difference among the three modes of language under study—dictation, independent writing, and retelling—when common language units such as T-units, dependent clauses, mazes, dependent clauses per T-unit, and total words produced are compared. The only differences observed were that retelling produced more mazes (mostly accounted for by one school) and that the number of words produced in independent writing was the lowest (22 words—again mostly due to one school, but a different school from the one producing the mazes) when compared to dictation (80
words) and retelling (106 words). Dependent clauses were used very infrequently by these first-graders—approximately ONE per writing session; the fewest number of dependent clauses were used in independent writing, the most in oral retelling. These findings were in keeping with the previous findings of Loban (1976) who found approximately equal numbers of communication units in oral and written language in grades 4-12 and with Fox (1972) who found first-grader's oral language to be in the 7.0-7.2 range in terms of T-unit length. However, the number of words produced in oral retelling and independent writing seems low when compared to data presented by Graves & Giacobbe (1982). These authors report written accounts of 73 words long (compared to 22 in this study) and oral accounts of 246 words long (compared to 106) in December of grade one.

When examining the data on aural comprehension in this study it becomes clear that there is a reasonable correlation between retelling as measured by traditional language measures and as measured by a "quality" measure (in this case RMI-like scoring of character, plot, and events mentioned). It also becomes clear that the retelling of EVENTS is the single best predictor of composition quality. This finding appears to agree with the findings of Hansche (1983) at the grade 1,4,8 and 10 level and with Phifer, et al (1983) who concluded that "the presence of details enhanced recall of major idea units" at
the adult level. While a step-wise regression analysis was not performed, it is clear from Table 3 that very little would be added to the prediction of TOTAL RETELLING by the addition of the variables: character recall, character development, and plot. These types of findings could be used to develop a weighted RMI-type scoring system to produce more valid predictions.

In conclusion, the present findings provide some descriptive evidence (though of the product type) of what teachers may expect of first-graders.

STUDY TWO

PURPOSE

Study Two in its original form was entitled "A study of grade two conservers' and nonconservers' ability to retell stories, to tell stories, to dictate stories, and to write stories" (Hay, 1984). However, for this presentation only some of the original questions are addressed:

1. Are children classified as conservers able to provide more language output than nonconservers?

2. What is the relationship between language output and story structure quality in dictated stories?

3. What is the relationship among an holistic evaluation of the dictated stories of conservers, transitional conservers, and nonconservers and measures of language output?
METHOD & PROCEDURES

The subjects were 35 grade two children from four individual classrooms of one suburban Winnipeg school. The Goldschmid-Bentler Concept Assessment Kit—Conservation, Form A (1968) was used to classify the 11 nonconservers (six points or less), 12 transitional conservers (seven to ten points), and 12 conservers (eleven or twelve points). Boys and girls were distributed equally in the groups.

In the story retelling task, the children were required to retell (without the aid of pictures) the story originally generated with the aid of pictures to a second person who had not heard the story. Story dictations were taken by the researcher (Hay, 1984) in manner similar to Study One. The independently written stories were obtained through class writing lessons which included a 15-20 minute prewriting activity based on a visual or auditory stimulus. Assistance in spelling was provided. Three samples were collected for each mode—retelling, dictation, independent writing.

The stories were analyzed as in Study One but in addition two measures of rhetorical quality were applied. The primary measures were the five macrostructure categories developed by Rumelhart (1975) and adapted into a question format by Sadow (1982). A second rhetorical measure was a holistic evaluation patterned after Cooper (1977) and the Manitoba Writing Assessment (1982) but modified to accommodate the "dictation" procedure.
FINDINGS & DISCUSSION

Analysis of variance of the two factors, developmental level and story-language mode, indicated a statistically significant difference between conservers and nonconservers, and between the four story-language modes, for specific measures of linguistic quantity and rhetorical quality. A step-wise regression correlation indicated that Total Number of Words and Total Number of T-units, measures of linguistic quantity, predicted the rhetorical quality of conservers' stories, while total number of T-units predicted rhetorical quality of nonconservers' stories. Further, a comparison using ANOVA and t-tests of the dictated stories of conservers, transitional conservers, and nonconservers showed that nonconservers were statistically different from both other groups on four measures: General impression mark, theme, ideas, and sentence structure.

TABLE 4
A COMPARISON OF SECOND-GRADE CONSERVERS' AND NONCONSERVERS' MEAN LENGTH OF T-UNITS IN THREE MODES (MEANS)

<table>
<thead>
<tr>
<th></th>
<th>Dictation</th>
<th>Ind. Writing</th>
<th>Retelling</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSERVERS</td>
<td>9.527</td>
<td>8.360</td>
<td>8.257</td>
</tr>
<tr>
<td>Total Words/Comp.</td>
<td>210.36</td>
<td>126.30</td>
<td>222.14</td>
</tr>
<tr>
<td>NONCONSERVERS</td>
<td>8.817</td>
<td>7.023</td>
<td>7.180</td>
</tr>
<tr>
<td>Total Words/Comp.</td>
<td>177.88</td>
<td>74.30</td>
<td>137.30</td>
</tr>
</tbody>
</table>
CONCLUSIONS & IMPLICATIONS

Hay (1984) concluded among other things that in terms of mean T-unit length it was possible to distinguish between conservers and nonconservers in the various language modes. In fact, if one compares the first-grader's retelling scores in terms of mean T-unit length (Table 1) with the nonconserver second-graders (Table 4) one sees a striking resemblance. The relationship between quantitative and qualitative measures proved to be somewhat erratic in Hay's study and was dependent on the measure used; only for nonconservers did the multiple-R reach statistical significance (R=0.58). However, the holistic evaluation did discriminate among conservers and nonconservers but not between conservers and transitional conservers.

The cognitive variables "conserver" and "nonconserver" appear to be powerful ones in assisting the teacher in understanding the difference in second-graders' expressive language. When compared to first-graders, the second-grade conservers have gained considerable syntactic fluency.

STUDY THREE

The data reported here are based on the 1982 Manitoba Writing Assessment Program. While the Assessment program was conducted to provide benchmark indicators about the level of student achievement in the Province of Manitoba for grades 3, 6, 9, and 12, only the third-grade results are alluded to here and only selected measures which might
shed some light on the developmental nature of these measures are discussed.

Approximately ten percent of the students at each grade level in Manitoba public schools were randomly designated for the provincial sample. For the third-grade level that was a total of 1,333 students of which only a subsample of 70 received the intensive scoring reported here (i.e. attribute scoring, descriptive scale, error count).

FINDINGS & DISCUSSION

Table 5 presents measures for the third-grade which may be compared, cautiously, to similar measures in grade one (Table 1) and grade two (Table 4). The Preliminary Report: Test Data did not attempt to interpret any of the test results and the Final Report containing more interpretive information and comparisons to the 1979 Assessment was not released at the time of this writing. It can be seen that in terms of mean length of T-unit, the third-graders' scores fall between those of the conservers and nonconservers in grade two. Of special note are the findings about these subjects' "writing of directions"—they are shorter pieces of writing yet more syntactically complex writing. Because these students represent a provincial sample, the results should be generalizable to a larger population than is the case for the other two studies.
TABLE 5
A COMPARISON OF THIRD-GRADE'S STORY AND DIRECTION WRITING ABILITY AS EXPRESSED BY SELECTED MEASURES (MEANS)

<table>
<thead>
<tr>
<th></th>
<th>Story Writing</th>
<th>Writing Directions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Words/T-unit</td>
<td>8.22</td>
<td>10.30</td>
</tr>
<tr>
<td>Mean Dep. Clauses</td>
<td>2.76</td>
<td>1.66</td>
</tr>
<tr>
<td>Mean DC/T-unit</td>
<td>.15</td>
<td>.19</td>
</tr>
<tr>
<td>Total Words/Comp.</td>
<td>139.36</td>
<td>73.31</td>
</tr>
</tbody>
</table>

OVERALL CONCLUSIONS & DISCUSSION

What, then, may be learned from these three studies when considered together? While it is always dangerous to generalize across findings based on somewhat different samples, some interesting observations (although in need of further confirmation) may be derived.

First, by using measures of syntactic fluency such as the T-unit, it is possible to explain differences not only within compositions but also across language modes. As Hunt (1977) stated: "Linguistics will be of vastly greater help to language teaching as it begins to be able to make such statements as: 'This structure has this meaning in this environment for this reason'". Because the T-unit allows comparisons across language modes—writing, speaking, reading—it is a measure useful in understanding the interrelationship of the language arts and ultimately
in teaching the language arts.

Second, while the literature is replete with American norms and data about language measures, comparatively little is known about Canadian populations. These studies make a contribution since they form rudimentary benchmarks to guide the researcher. Furthermore, these language measures do indicate a general developmental trend, at least for narrative writing.

Third, while these language measures (T-units, dependent clauses, mazes, total words) may be indicators of syntactic fluency, their relationship to rhetorical measures is somewhat erratic as pointed out by Crowhurst (1983) and confirmed by two of the studies discussed here.

Fourth, the cognitive variable "conservation" in relation to language measures looks extremely promising in that it differentiates students in terms of fluency and rhetorical quality. As Hay (1984) pointed out, previous studies by Brown (1975) and Stein and Glen (1978) did not actually determine the level of cognitive functioning and hence considerably more research using such controls will be required.

Straw's (1982) work gives some tentative insights into the relationship of story writing to writing directions. While only the third-grade data is presented in Table 5, the relationship between the two types of writing is generally supported at grades 6, 9, and 12 in his study.

Sixth, while the discussion here has centered mainly

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around comparing language modes—retelling, independent writing, dictation—the procedures and measures discussed in these studies may actually be considered as assessment techniques in their own right. The context under which information is gathered has high ecological validity. That is, the retelling is done for a purpose (i.e. the story is told to a person who has not heard it before), the writing can emerge from a real experience, and the dictation is a natural activity not dependent on the encoding abilities of the student, yet it produces text usable for other purposes such as reading or record keeping.

In closing, it should be reiterated that what is presented here is not intended to be definitive but rather it is presented for the purpose of showing that more coordinated research is needed, and that the investigation should be in the Canadian context. The initial assumption was also that it should be in the context of the "integrated language arts" paradigm. These studies have provided the investigators with some insights which may make further research more productive. That is, we need more carefully controlled and comparable work; we need more information about expository text; we need to look carefully at rhetorical and arhetorical measures; and we need to consider more seriously the function of language and communication as a holistic process. As Smith (1979) has so forcefully put it: "The categories of the language arts are arbitrary and artificial; they do not refer to
exclusive kinds of knowledge or activity in the human brain. Reading, writing, speaking and understanding speech are not accomplished with four different parts of the brain, nor do three of them become irrelevant if a student spends a forty-minute period on the fourth."
REFERENCES


National Reading Conference, Austin, Texas.


RESEARCH IN READING AND WRITING SHOULD BE PROGRESSIVE

A RESPONSE TO PROEBSE

Linda Phillips-Riggs
Institute for Educational Research and Development
Memorial University of Newfoundland

Response presented at the Colloquium on Research in Reading and Language Arts in Canada, Lethbridge, Alberta, June 7-9.

1984
INTRODUCTION

Progressive research in reading and writing is systematic. It must build upon extant knowledge, explain and delineate theory components and their relationships, seek compatibility with research evidence as well as undergo progressive modifications in the processes of thinking and testing. I focus my concern on the problems with three studies on Dictation, Independent Writing, and Story Retelling reported by Victor Froese (1984).

As a group, these three studies on Dictation, Independent Writing and Story Retelling offer diverse levels of information that communicate in different ways the importance of gaining better knowledge about language and language growth in primary children. Efforts to compare the results among them should take into account how very different the actual studies were.

Froese's paper is an example of a zealous attempt to expand the horizons of our understanding of three modes of expression - dictation, independent writing and retelling - in the primary grades. I will briefly summarize the paper, indicate that within it lies a wealth of information which has been generally left implicit, suggest that some of the points made warrant a broader and deeper consideration, as well as share some of my ideas for future research.
The main points of Froese's paper are as follows: first, language is the nucleus of the language arts which should be taught in a developmentally integrated manner, specifically he emphasizes the importance of its function; and, second, while such an inter-relationship is commonly assumed, little systematic and descriptive data exists to support such a belief. He further states this to be glaringly evident particularly in the primary grades and in the Canadian-context; third, while Froese lends caution about the dangers of generalizing across findings, he proceeds to point out that the T-unit may be a way to explain differences not only within compositions but across language modes, dictation, independent writing and retelling. The cognitive variable "conservation" was highlighted as promising for differentiating students in terms of fluency and rhetorical quality.

What is the Problem?

The introduction to Froese's paper states the integration of the language arts to be a paradigm shift from a skills-oriented (product) to a more process-oriented and holistic language paradigm. The assumption proffered is that both teaching and assessment should be consistent with philosophy. He then proceeds to infuse the three studies conducted in the primary grades but only implicitly relates how his introduction has anything to do with the notion of an "integrated" language paradigm nor does he say any more than that the results of the studies are useful in understanding the inter-relationships as well as their teaching, without explicating "HOW".
While it is not the purpose of this reaction paper to critique each of the studies, it is worthwhile to take a look at each. The most obvious way to organize what I wish to convey would be to ask "what is the problem?".

Study One examined the relationship among three expressive language modes and tried to understand better the process of aural comprehension in the first grade. Having placed emphasis on the writing process which is reflective of the progressive consensus, Froese then proceeds to use quantitative measures which have their emphasis and application on the writing product.

Past research has praised the T-unit as a reliable and efficient manner of language development in both speech and writing. The T-unit was developed by Hunt in 1965 as a measure of syntactic complexity and at a time when the emphasis was quantitatively geared towards getting at the product of children's language. Froese indicates that Crowhurst (1983) did voice some concerns about the use of the T-unit in her review of syntactic complexity and writing quality. Given that research has a way of growing whereby one study inspires and leads to another then cognizance should be taken of the work by such people as Rosen (1969) where his subjects who had the highest T-unit length had the lowest mean quality score. Gebhard (1978) found that good and poor freshmen showed no significant difference on T-unit length in expository essays but rather that clause length was a better indicator of quality. Crowhurst (1980b) examined the relationship between T-unit and quality ratings of narrative and argumentative compositions of pupils in grades 6, 10 and 12. No significant difference was found at
the grade 6 level. Steward and Grobe (1979) found at the grade 5 level that the number of words per T-unit and words per clause explained respectively 11% and 3% of the variance in quality scores, while at grades 8 and 11 they accounted for only 1% of the quality variance. It would seem then from the few studies to which I have referred that the quantitative measures of the past are not an adequate means to get at the current philosophy in the field of language development. Crowhurst (1983) insightfully asks "Is the improvement in quality related to increases in syntactic complexity scores, and in particular, to the two most commonly used measures of syntactic complexity - T-unit length and clause length?".

Definitions of T-unit, mazes, and rhetorical quality are not provided for the reader. Having lamented the existence of only correlational studies to show the relationship between reading and writing, Froese uses descriptive statistics to show the relationships without elaborating as to why and or how Moffett's (1983) position on the relationship of thinking, writing and reading relates to Study One. Metacognitive questions about children's conceptions are posed exciting the reader but which are not further dealt with in the paper. Froese alludes to the point that first grade children may have some difficulty in the actual motor skill of writing in grade 1, that is true if the children are from a context in which writing has not been encouraged from day one.

Clarification as to whether there was an emphasis on the children composing their own story for the dictation as opposed to retelling a well-known story was not supplied. In all of the recent work on the
development of prose comprehension (Anderson, Spiro and Montague, 1979; Spiro, Bruce and Brewer, 1980; Glaser, 1982; Mandler and Stein, 1980) one of the best predictors of accurate comprehension is the amount and organization of prior knowledge a student has for the topic and task at hand. The work of Humes (1981) and others imply that children must have some working knowledge of a topic before they begin to write. What effects do story schema have upon the oral and written production of stories is a very important question. The examiners kept anecdotal notes as to the children's reactions but no mention of this potentially informative data was disclosed.

The findings of Study One revealed that the only two significant mode effects were for the total number of words per maze and for number of words per story. No discussion of this finding was presented. Loban logically and empirically identified that situation played a large part in maze behavior. Indeed since mazes played such a stable role in Loban's work, he wondered whether they are related to an interaction between psychological security and language rather than to chronological language development. Mazes are a curious and interesting feature of language which play an important part in fluent communication. The second point of the study dealt with the descriptive aspects of listening comprehension and the quantitative measures used. Events was the best predictor of total comprehension, Froese stated "...clear that the retelling of events is the single best predictor of composition quality" but to the extent that I understand the study, events were only a part of the retelling not of dictation nor of independent writing. Moreover, we know from research
(Keller-Cohen, 1978; Clark, 1978) that what children pay attention to is reflected in early vocabulary development; for instance, their attention to actions is reflected in early choice of "words that refer to agents, movers, and doers". Finally, Froese suggests that the study provides descriptive evidence of what teachers may expect of first graders but he overlooked telling us "what".

Study Two was carried out by a graduate student, Hay, 1984. It is apropos to say that the purpose of this study was different than for that of either the first or the third. It was a study of grade two conservers' and nonconservers' ability to retell, to tell, to dictate and to write stories. The lack of definitions and the concerns I expressed with regard to the quantitative measures used in Study One also apply to this study.

Hay (1984) concluded that in terms of mean T-unit length it was possible to distinguish between conservers and nonconservers in the various language modes. I do think that Hay is on to a very stimulating notion here in terms of childrens' cognitive ability and their expressive language ability. Flavell suggested that cognitive complexity sets the pace for acquisition since children tend not to use words for which they have no meaning. It would be useful to know how the cognitive variables of the study could assist teachers as was suggested in the paper.

Study Three was conducted as a writing assessment program to provide benchmark indicators about the level of student achievement in the province of Manitoba for grades 3, 6, 9 and 12. Only the grade 3 results pertain to this study. Froese does advise caution in the
comparisons of these results for Story Writing and Writing Directions with those of the other two studies. At this point, I want to ask a question "What does this study have to do with Dictation, Story Retelling and Independent Writing in the Primary Grades?". No details were provided as to the nature of the writing assessment, the context of the study, the tasks to which the children were to respond, plus other factors.

Froese then proceeded to draw some overall conclusions while stressing caution and the need for further confirmation of this work. He states that by using measures of syntactic fluency such as the T-unit, it is possible to explain differences not only within compositions but also across language modes. I suggest that a maxim in research is that a measure might be highly reliable yet not a valid measure of that being researched. I feel that a quantum leap was made when Froese made the statement "Because the T-unit allows comparisons across language modes it is a measure useful in understanding the inter-relationship of the language arts and ultimately in teaching the language arts", no explanation as to how this might be so was given.

The second overall conclusion highlighted the Canadian data issue as well as suggested that the language measures used indicated a general developmental trend at least for narrative writing, yet one of the comparisons made in the third grade study was on the basis of expository writing.

The third overall conclusion pointed out that the language measures used and their relationship to rhetorical measures is somewhat erratic, I agree entirely. It seems to me to be another indication that
researchers need more adequate measures to reflect today's thinking in the field of language. I also agree with the conclusion that the cognitive variable "conservation" is a promising area for research in language however I note that it does not reflect an overall conclusion since indeed it was a variable in only Study Two.

Study Three by Straw (1982) suggests that there are tentative insights as to the relationship of story writing to writing directions, "what are they?". I think it is incumbent upon Froese to demonstrate how the procedures and measures used in the three studies discussed could actually be considered as assessment techniques and indeed for what?

In the final paragraph of Froese's paper, I agree that we need more coordinated research in the Canadian context; that we need more carefully controlled and comparable work; that we need more information about expository text; to consider rhetorical and arhetorical measures; and certainly that we need to consider the function of language and communication as a holistic process but I'm not certain that I see how Smith's statement concludes the paper since in fact I don't believe the language arts to be arbitrary and artificial.

Some Research Ideas

Researchers who ask process questions not only gather sound information about child growth, but also ask the very question that contribute significantly to the growth of the children themselves. Right now, the belief seems to be that if we involve children enough in the meaning of their writing, that they will
gradually acquire the linguistic information they need to express themselves in a clear manner. However, there is little or no data to substantiate this point. Clearly, the answer awaits future research, to which I reiterate the necessity for a better descriptive system for the types of knowledge that are critical to the writing process as well as for a theory that will lend guidance in predicting how and in what sequence such knowledge should be used. Researchers must be cognizant that children's verbalizations (oral and written) are only part of the message communicated by them, so we must consider such factors as the language the child is reacting to and its meaning potential, the situational environment of the participant, the variety of language used in any specific communication event, the linguistic system itself (both its potential and how it is constructed by the child), and the social structure within which the interaction is taking place.

The development of oral discourse strategies to a certain level is probably essential for including them in decontextualizing written language, and research on the relationship of this aspect of oral language development to reading is of great potential significance for schooling.

If we are to avoid "magical thinking" about language development in the classroom, we need to understand more clearly the nature of task environments for language growth in schools and how teachers can intervene meaningfully to support the acquisition process.

Related to the "conservation" variable in Study Two is decontextualization. It begins when children use language to refer to objects, people or actions, not present in the immediate
environment. What is inherent in a child's ability to decontextualize (to symbolize and construct context linguistically), to communicate with others who do not share the same social and personal experiences and a child's ability to "conserve"?

Conclusion

All of my comments pertain to the three studies and their overall conclusions. This type of information also contains an implicit theory of importance. That is, by becoming aware of the purposes for each, we become aware of what makes information important or valuable which in turn stimulates more information to be researched. It seems to me that an evaluation of the procedures used, as well as the gains in language ability, is an absolute necessity if we are to advance our knowledge about language in various modes. The research we do is judged in its strength by the criteria that is used to show gains in actual language development.
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