

PROBLEMS IN MEASURING SYNTACTIC DEVELOPMENT: T-UNITS VS. SENTENCE WEIGHT

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DiStephano and Howie propose a new way of evaluating syntactic complexity and maturity, the method of “sentence weight.” The method is a measure of modification: number main clause words 1, modifiers of them 2, modifiers of modifiers 3, and so forth; add the score, divide by the total of numbered words (ignore structure words—prepositions, articles and the like); the answer is the weight of modification in the sentence, the higher the more complex. They claim the measure is an alternative to charting development by measuring clause lengths, the T-unit method of Hunt, which counts the average length of a composition’s minimally terminable units, main clauses with all associated modifiers and clauses.

But sentence weight appears to be an unneeded alternative, no more accurate than T-units—in one area less accurate—and more complicated to compute. Sentence weight does not solve and, in fact, reproduces several problems contained in T-unit analysis, even some identified by Christensen, whose work DiStephano and Howie (98) claim for their theoretical source. Sentence weight scores further vary considerably with the theory of modification—grammar—employed, a variation to which T-unit analysis is largely immune.

Hunt (1978, 93-94) himself uncovers one problem in T-unit

analysis without pursuing it, a problem with some coordinated structures on his "Aluminum" test (Appendix A gives typical structures from grade 4, 8, 12, and skilled adults together with T-unit and sentence weight scoring). Hunt finds young writers moving through three stages of coordination. Fourth graders normally coordinate main clauses (superscripts are relevant below, in sentence weight analysis):

1 1 1 1 1 1
(1) It contains aluminum and it contains oxygen.

The next stage, taking hold between grades 4 and 6, drops the second *it*, coordinating predicates:

1 1 1 1 1
(2) It contains aluminum and contains oxygen.

T-unit comparison of these shows, as Hunt might wish, a difference between sentences—the average T-unit of the first is 3.5 words (7 words divided by 2 main clauses), while the second has a much larger T-unit length—6 words (6 words divided by 1 main clause). But the next stage, beginning about grade 6, presents problems. Now the repeated *contains* in the predicate also disappears, providing coordinated objects:

1 1 1 1
(3) It contains aluminum and oxygen.

The T-unit length here is 5 (5 words divided by 1 main clause), not a very welcome answer for T-unit adherents. True, the score improves over (1), 5 to 3.5. But it is less than the earlier, 4-6 grade structure, 5 to 6. Example (3), theoretically from a more developed writing stage, is not mathematically captured as such in a T-unit analysis.

But sentence weight does no better. In fact, the sentence weight score for (1), (2), or (3) is 1, identical in all cases. None has any level 2 modifiers: (1) has 6 main clause words divided into a count of 6; (2) 5 main clause words into a count of 5; (3), 4 into 4. Sentence weight, in concentrating on modification, is blind to growth here.

Actual passages from Hunt introduce complications not in (1)-(3), but also show sentence weight clearly less sensitive to coordination of predicate and object than T-units are. Appendix B neutralizes

the relevant coordinated structures of the original Hunt versions (Appendix A) and shows revised scores, which demonstrate how little importance sentence weight gives this area of development. In grade 4, when such structures are rarely used, neither system shows much difference between original and revision. After that grade, T-unit revised scores fall better than 25% from the original at each level when such coordination is neutralized. But sentence weight scores fall only 10% or less.

Sentence weight, then, does not solve the T-unit problem with coordination. In fact, both systems may be lucky that, overall, coordination is of limited importance in syntactic growth—as Hunt (1970, 35) says, “growth in coordination seems to occur early and does not contribute much to full maturity.” However, for a short time—grades 4 to 6—that growth is, as Hunt also notes, a “major change.” T-units do somewhat better in recording the change than sentence weight does.

For modifying structures, Hunt also uncovers some potential difficulties without examining their implications for T-units. Indeed, the difficulties aren’t always initially apparent, the case with the T-unit count for the relative clause, more and more a syntactic staple after grade 6. Here is the coordinated main clause typical of grade 4:

1 1 1 1 1 1

(4) Aluminum is a metal and it is abundant.

Its T-unit average is 4 (8 words divided by 2 main clauses), less than in a relative clause version:

1 1 1 2 2 2

(5) Aluminum is a metal which is abundant.

whose T-unit count is 7 (7 words divided by 1 main clause).

So far, no problem exists. But as another modifying structure burgeons, so does an attendant difficulty. Prenoun placement of adjectives grows as writers mature, its incidence increasing regularly even into grade 12 (Hunt 1978, 99), while relative clauses are one of a group (the subordinate clause group) that stabilizes earlier (Hunt 1970, 17). The difficulty lies in the analysis of this mature, adjective structure:

1 1 2 1

(6) Aluminum is an abundant metal.

The T-unit length is 5 (5 words divided by 1 main clause), 2 less than the T-unit count of the somewhat less mature relative clause version in (5). T-unit numbers, in short, suggest that the grade 4 construction (T-unit: 4) is followed by the most mature construction (T-unit: 5) which is followed by the intermediate construction (T-unit: 7). And this anomaly is troublesome on semantic grounds as well. It seems unlikely that a construction like *metal which is abundant*—with two semantically vacuous words, *which* and *is*—would be more mature than the condensed, every-word-important *abundant metal*. Sample rewritings (Appendix A) suggest the same, *which is/are* followed by adjective or noun occurring only at grade 8, while prenoun adjectives are typical of grade 12 and skilled adult writers.

But T-unit problems are not corrected with sentence weight procedures, which succeed and fail here exactly as T-units do. As in T-units, the relative clause version (5) in sentence weight has a greater score than the coordinated main clauses (4). For (5) the weight is 1.5 (a count of 9 divided by 6 main words) while (4)—without modification—scores 1 (a count of 6 divided by 6 main words). And as with T-units, the sentence weight of the adjective version (6) fails to reflect the greater maturity of the construction over the relative clause. The score of (6) is unexpectedly lower, 1.25 (a count of 5 divided by 4 main words), than the less sophisticated relative clause score, 1.5.

Another index of syntactic maturity shows similar results, problems in both systems. A typical grade 4 structure is

1 1 1 1 1 2

(7) Bauxite is an ore and bauxite looks like clay.

with a T-unit average of 4.5 (9 words divided by 2 main clauses). Hunt (1970, 40-41; 1978, 99) notes mature writers tending to change syntactic class of items, turning the latter clause into a single adjective to produce

1 1 2 1

(8) Bauxite is a claylike ore.

But this ordering—typical only of skilled adults—has a T-unit count barely higher than grade 4, only 5 (5 words divided by 1 main clause). Sentence weight gives comparably poor results. (7) has a weight of 1.17 (a count of 7 divided by 6 main words), while (8) is only minimally higher, 1.25 (a count of 5 divided by 4).

Another case shows a T-unit problem made slightly worse by a sentence weight analysis. Consider *(it) has many uses*, which can be turned either into *with many uses* or *useful*. In fact, Hunt (1978, 99) finds that either of the latter versions is apparently equally satisfactory for mature writers, but T-units don't capture that equality. Rather, they give precedence to the prepositional phrase:

1 1 1 1 1 2 1
 (9) Aluminum is a metal and it has many uses. (T-unit: 4.5)

1 1 1 3 2
 (10) Aluminum is a metal with many uses. (T-unit: 7)

1 1 2 1
 (11) Aluminum is a useful metal. (T-unit: 5)

Sentence weight also favors (10), but additionally ranks the other mature choice behind the grade 4 choice by a slight margin. (9) has a weight of 1.33 (8 divided by 6), (10) has a weight of 1.6 (8 divided by 5), while (11) drops below both to a weight of only 1.25 (5 divided by 4).

These results suggest that sentence weight analysis shares difficulties of the T-unit approach. Actually, they share more—a common source for many difficulties. Both systems value modification highly, but only some kinds of modification—long instances, this despite evidence elsewhere saying that some short modifying structures are the more mature ones. T-unit scores always improve more from a relative clause than from an adjective, since a clause like *which looks like clay* swells the T-unit count by 4, an adjective like *claylike* only by 1. Sentence weight scores also swell more from a relative clause than from a single modifier, since the clause contains at least twice as many level 2 words as an adjective. Given their similar preferences, it isn't surprising that the two systems hardly differ in evaluating the increase in maturity between grade levels with the typical structures of Appendix A:¹

	Grade 4	Grade 8	Grade 12	Skilled Adult
T-unit length	5.36	10.00	11.89	17.00
Sentence weight	1.26	1.94	2.16	2.75

Between grade 12 and the skilled adult writer, an average T-unit

increases 1.43 times, while sentence weight increases 1.27 times; between grade 8 and 12, T-units increase 1.19 times, sentence weight 1.11 times; between grade 4 and 8, the margin differs more (T-units, 1.86 times; weight, 1.54 times), a result of the increase in coordinated predicates, which only T-units record. With those coordinated structures neutralized (Appendix B), the increases are closer:

Relevant Coordinated Structures Neutralized

	Grade 4	Grade 8	Grade 12	Skilled Adult
T-unit length	5.07	7.1	8.69	11.25
Sentence weight	1.26	1.74	2.00	2.55

The increases between grade levels, T-unit increase first, are: grade 12/adult, 1.29, 1.28; grade 8/grade 12, 1.22, 1.15; grade 4/grade 8, 1.40, 1.38.

The two systems, then, give similar results. But they are not similarly easy to compute; T-units are much more convenient. Computing either system begins with one question of a passage, locating its main clauses/level 1 words. T-unit analysis asks only one more question: how many words is one passage? Sentence weight asks several, requiring in fact a rough syntactic analysis of the entire passage: which words don't count? which are level 2? which modify a modifier? After analysis, T-unit scoring permits automatic enumeration of words—all are counted, unlike the case in sentence weight; and all count the same, 1, whereas sentence weight requires addition of various numbers.

Of course, computational inconvenience would hardly matter if the numbers of sentence weight were recording something vital. But its gross scores record no more than T-units do. Nor does increase in specific numbers—in the production of level 4 items, for instance—record the kind of growth Christensen (1963/1978, 1968/1978) means when he uses numbers to consider syntactic maturity. He restricts numbering to modifiers which mark professional writing—"free" modifiers, generally phrases cut off through punctuation from what they modify. So Christensen (1963/1978, 31) sees a Sinclair Lewis sentence as:

- (12a) 1 He dipped his hands in the bichloride solution and
 2 shook them,
 3 a quick shake,
 4 fingers down,
 5 like the fingers of a pianist above the keys.

Key features are its free modifiers—level 2 modifying *shook* in the main clause, level 3 modifying the level 2 noun *shake*, level 4 elaborating the level 3 direction for the *fingers*. Christensen almost ignores modifiers that sentence weight values, words like *bichloride*, since for him their inclusion does not indicate growth. They can occur in sentence versions with or without free modifiers, and sentence weight will score the versions almost equally. For example, Lewis's original, with 56% of its words in free modifiers, is marked for weight in (12b), with a result of 2.6 (39 divided by 15); but (13)—an imitation with 0% free modifiers—has almost the same weight, 2.65 (45 divided by 17):

- (12b) 1 He dipped his hands in the bichloride solution and
 1 1 2 1 3 2 3 4
 shook them, a quick shake, fingers down, like the
 4 5 6
 fingers of a pianist above the keys.
- (13) 1 1 2 1 3 2 3 3 3
 He dipped his hands in the bichloride solution and
 1 1 3 2 3 3 3
 shook them with a quick shake that held the fingers
 4 4 5 6
 down like the fingers of a pianist above the keys.

Clearly (13) is toneless writing, the results of what Christensen (1963/1978, 27) condemns as “the injunction to ‘load the patterns.’” But sentence weight cannot separate the toneless sentence from the one that rings true.

T-units do equally poorly in analysis—(12), with a T-unit of 25, differs minimally from (13), T-unit of 29. This is hardly surprising, given the similarities noted above between T-unit and sentence weight problems, and the added fact that Christensen's own discussion of syntactic maturity opposed his system to T-unit analysis, which he found wanting. Syntactic weight—despite its proponents'

claiming of Christensen as an influence—is equally wanting from the standpoint of the Christensen theory. For instance, Appendix C includes two sets of original sentences and rewrites that Christensen provides, and only Christensen analysis uncovers their major differences (originals devoting over half their words to free modifiers); T-units show slight differences (originals 1.25 and 1.13 times longer than rewrites); sentence weight shows similarly slight differences (originals with 1.09 and 1.15 times more weight than the rewrites).

It is true that Christensen (1968/1978, 148-149) finds free modifiers relevant only to the final stages of syntactic maturity—a finding supported by the Hunt typical passages (analysis in Appendix A), grade 4 using no free modifiers, grades 8 and 12 both using 9% of words in free modifiers, only skilled adults using a significant number of words—45%—in free modifiers. But because those final stages are captured by an increasing proportion of words devoted to level 2 (and beyond) free modifiers, the numbers in Christensen’s system are informative. But the numbers in sentence weight cannot be used that way, and in fact its numbers are often arbitrary, only accidental functions of the system of grammatical modification behind the analysis. For instance here is a simple scoring DiStephano and Howie (1979, 100) give, one with a weight of 2 (24 divided by 12):

2	2	2	3	1	1	1
(14a)	When	John	went	to	the	store,
	4	3	2	2	1	
	he bought a loaf of					
	whole wheat bread and some milk.					

But another perhaps familiar grammar provides a different answer. In Thomas (1965, 162-165), the adverbial prepositional phrase of place in *went to the store* is not a modifier and so will not contain a lower number than the verb. The actual object (85-86) would be *bread*, with *loaf* as a noun of quantity predeterminer, and so a modifier of sorts for *bread*, telling how much (the logic of *bread* and *milk* at the same level is missing in the original analysis). The stressing of *whole* and *wheat* suggests the two words become a single compound (114; the *American Heritage Dictionary* lists the item as a single hyphenated adjective). And *some* becomes part of the regular article system (79), equivalent to *a* or *the* and so (according to sentence weight scoring rules) not analyzed. The new analysis then is:

2 2 2 2 1 1 2
 (14b) When John went to the store, he bought a loaf of
 ┌ 2 ┐ 1 1
 whole wheat bread and some milk.

Under this analysis, sentence weight falls from 2 to 1.6 (16 divided by 10).

The point is not that this counter-analysis is necessarily correct, though it stems from a theory specifically of modification, one rooted in transformational-generative linguistics (Thomas, 1965, 151-152, 162-165). The point is rather that claims about modification—and numbers based on those claims—very much depend on the grammatical theory used. For further instance, in light of more recent linguistic discussion, the Thomas theory of modification disappears from his text a decade later.

And what is more crucial about the dependency of sentence weight on grammatical fashion is that the rival theory, the T-unit system, is not so dependent. The virtue of the T-unit is that it ignores much grammatical detail, and so is insulated from much grammatical debate. Most grammarians, whatever syntactic church they attend, can agree on how many main clauses a composition contains, which is all T-unit analysis really asks. True, even this is not totally straight-forward—Mellon offers reasons for departing somewhat from Hunt's scoring procedures. But T-unit analysis does, fortunately, inhabit an area where most grammars agree. For that reason, as well as for its simplicity and a degree of accuracy comparable to the one in the more complicated theory of sentence weight, the T-unit approach—despite its occasional problems—continues to be the most useful method of analyzing syntactic complexity and early maturity, despite its occasional problems.

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Appendix A

Hunt (1970, 64-67) gives these passages from his "Aluminum" tests as typical of grade 4, 8, 12 and skilled adult writers. Analyses are mine; free modifiers, evaluated according to Christensen (1968/1978, 146), are italicized. All are level 2 free modifiers but the last modifier groups in the skilled adult sentences 4 and 5, which are level 3.

GRADE 4

Av. T-unit length: 5.36 (Words, 150; T-units 28)

Av. Sentence weight: 1.26 (Key words, 103; Total court, 130)

Free modifiers: 0% of words (0 of 150 words)

- | | | | | | | | | | |
|-----|--|-------------|---|---|---|---|---|---|---|
| | 1 | 1 | 1 | 1 | 1 | | | | |
| 1. | Aluminum is a metal and is abundant. | | | | | | | | |
| | 1 | 1 | 2 | 1 | 1 | 1 | | 2 | |
| 2. | It has many uses and it comes from bauxite. | | | | | | | | |
| | 1 | 1 | 1 | | 1 | 1 | | 2 | |
| 3. | Bauxite is an ore and bauxite looks like clay. | | | | | | | | |
| | 1 | | 1 | | 1 | 1 | | 2 | 2 |
| 4. | Bauxite contains aluminum and it contains several other | | | | | | | | |
| | 1 | substances. | | | | | | | |
| | 1 | | 1 | 2 | 2 | 1 | | 2 | |
| 5. | Workmen extract these other substances from the bauxite. | | | | | | | | |
| | 1 | 1 | | 1 | | 1 | 1 | 2 | |
| 6. | They grind the bauxite and put it in tanks. | | | | | | | | |
| | 1 | 1 | | 2 | | 2 | | 1 | 1 |
| 7. | Pressure is in the tanks and other substances form a mass. | | | | | | | | |
| | 1 | 1 | 1 | | 2 | | 2 | 1 | 1 |
| 8. | They use filters to remove the mass and a liquid remains. | | | | | | | | |
| | 1 | 1 | 1 | | 3 | 3 | | 2 | |
| 9. | They put it through several other processes. | | | | | | | | |
| | 1 | 1 | 1 | | 1 | 1 | 1 | | |
| 10. | The chemical is powdery and it is white. | | | | | | | | |
| | 1 | 1 | 1 | | 1 | 1 | | 1 | |
| 11. | The chemical is aluminum and it is a mixture. | | | | | | | | |
| | 1 | 1 | | 1 | | 1 | 1 | 1 | |
| 12. | It contains aluminum and it contains oxygen. | | | | | | | | |

13. Workmen use electricity to separate the aluminum from the oxygen.
14. They finally produce a metal and the metal is light.
15. It has a luster and the luster is bright.
16. The luster is silvery and this metal comes in many forms.

GRADE 8

Av. T-unit length: 10.00 (Words, 120; T-units, 12)
 Av. Sentence weight: 1.94 (Key words, 88; Total count, 171)
 Free modifiers: 9% of words (11 of 120 words)

1. Aluminum is an abundant metal, has many uses, and comes from bauxite, which is an ore that looks like clay.
2. Bauxite contains several other substances.
3. Workmen extract these from bauxite by grinding it, then putting it in pressure tanks where the other substances form a mass.
4. The mass is removed by filters and a liquid remains.
5. Then the liquid is put through several other processes and finally it yields a chemical which is a powdery white color.
6. This chemical is an aluminum mixture which contains oxygen.
7. Workmen separate the aluminum from oxygen by use of electricity.

- 2 1 1
8. Finally, a metal is produced.
2 1 1 1 1 1 2 2 2
9. This metal is light and has a luster which is bright and silvery.
2 1 1 3 2
10. This metal comes in many forms.

GRADE 12

Av. T-unit length: 11.89 (Words, 107; T-units, 9)
 Av. Sentence weight: 2.16 (Key words, 76; Total count, 164)
 Free modifiers: 9% of words (10 of 107 words)

- 1 1 2 1 3 2
1. Aluminum is an abundant metal with many uses.
1 1 2 3 3 4 4 5
2. It comes from an ore called bauxite that looks like clay.
1 1 1 2 2 1 2
3. It contains aluminum and several other substances which
2 3
are extracted from the bauxite.
1 1 1 1 1 3 3
4. They grind the bauxite and put it in pressure tanks.
2 1 1 1 2 2 3
5. The other substances form a mass which is removed by filters.
2 1 1 3 2 3
6. The remaining liquid to put through other processes where
3 4 3 4 4 3 4 4
it finally produces a white, powdery chemical called alumina.
1 1 1 2 2 2 3
7. It is a mixture containing aluminum and oxygen, *which are*
4 3 5 4 4
soon separated from each other by electricity.
2 2 2 1 1
8. *Finally*, a light lustrous metal is formed.
1 1 2 1 2 1 3 2
9. It has a silver sheen to it and comes in many forms.

Appendix B

The following are versions of Appendix A sentences without predicate and object coordination. Words added are circled, as are all new or revised sentence weight values; asterisks before sentence numbers indicate number of new T-units added. Totals compare original (Appendix A) and revised versions, including the percentage the revised score is of the original T-unit or sentence weight score.

GRADE 4

1 1 1 (1) 1 1
 *1. Aluminum is a metal and (it) is abundant.

1 1 1 (1) 1 2
 *6. They grind the bauxite and (they) put it in tanks.

T-units	Words	T-units	Av. length	% of original
Original	150	28	5.36	100%
Revised	152	30	5.07	95%

Weight	Key words	Total count	Av. weight	% of original
Original	89	112	1.26	100%
Revised	91	114	1.25	99%

GRADE 8

1 1 2 1 (1) 1 2
 **1. Aluminum is an abundant metal and (it) has many uses.
 (1) 1 2 3 3 3 4 4
 (It) comes from bauxite, which is an ore that looks like
 5
 clay.

1 1 1 2 2 2 (2)
 *3. Workmen extract these from bauxite by grinding it. Then
 (1) (1) (1) (3) (2) (3) (4) (3)
 (they) put it in pressure tanks where the other substances
 (3) (3)

form a mass. (Numbers of old words in the second sentence are each one lower than the original's since the sentence no longer begins with level 2 *putting it.*)

2 1 1 1 (1) 1 1 (1) (1)
 ***9. This metal is light and (it) has a luster. The (luster) is
 (1) (1) (1) (1)
 bright and (the) (luster) (is) silvery. (The first *The*, a new

word technically, substitutes for original *which*. Numbers of old words in second sentence are each one lower since the sentence is no longer a relative clause.)

<u>T-units</u>	Words	T-units	Av. length	% of original
Original	120	12	10.00	100%
Revised	128	18	7.11	71%
<u>Weight</u>	Key words	Total count	Av. weight	% of original
Original	88	171	1.94	100%
Revised	95	165	1.74	90%

GRADE 12

- 1 1 1 (1) (1) 2 2
- *3. It contains aluminum and (it) (contains) several other
 1 2 2 3
 substances which are extracted from the bauxite.
- 1 1 1 (1) 1 1 3 2
- *4. They grind the bauxite and (they) put it in pressure tanks.
 1 1 1 2 2 (1) (1)
- *7. It is a mixture containing aluminum and (it) (contains)
 (1) (2) (3) (2) (3)
 oxygen, which is soon separated from the aluminum by
 (3)
 electricity. (Numbers in the relative clause are each one lower than the original, since the clause no longer modifies a level 2 noun.)

1 1 2 1 2 (1) 1 3 2

*9. It has a silver sheen to it and (it) comes in many forms.

<u>T-units</u>	Words	T-units	Av. length	% of original
Original	107	9	11.8	100%
Revised	113	13	8.6	73%
<u>Weight</u>	Key words	Total count	Av. length	% of original
Original	76	164	2.16	100%
Revised	82	164	2.00	93%

SKILLED ADULT

- 2 3 2 3 4 1
- *2. To extract the other substances found in bauxite, the ore
 1 (1) 1 3 2
 is ground and (it) (is) put in pressure tanks.

2 1 1 (1) 1 3
 **4. The remaining liquid is filtered and (it) (is) put through other
 2 3 4 3 4 4 3
 processes which finally yield a powdery white chemical,
 4 5 6 (1) (1) (1)
 alumina, a mixture of aluminum. And (it) (contains) oxygen.
 (The final word is no longer 6 because it is no longer conjoined
 to level 6 *aluminum*.)

<u>T-units</u>	Words	T-units	Av. length	% of original
Original	84	5	17.00	100%
Revised	90	8	11.25	66%
<u>Weight</u>	Key words	Total count	Av. weight	% of original
Original	56	154	2.75	100%
Revised	60	153	2.55	93%

Appendix C

Christensen (1968/1978, 140-142) gives two sets of sentences, each with an original (one from his own work, one from Northrop Frye) and a rewrite. Following are analyses of each set: first, the original (O) according to Christensen's free modifier levels; then the original (O) and rewrite (R) marked for sentence weight. Each of the sentences is a single main clause with modifiers, so there is only one T-unit in each.

FIRST SET

Original: weight, 2.68 (51 divided by 19); T-unit, 30 words
free modifiers: 20 of 30 words (67%)

Rewrites: weight, 2.47 (37 divided by 15); T-unit, 24 words
free modifiers: 0 of 24 words (0%)

In sentence weight, the original is 1.09 times "heavier" than the rewrite; in T-units, the original is 1.25 times longer than the rewrite; in free modifiers, the original has a greater percentage devoted to them than the rewrite in a ratio of 67% to 0%.

- O. 1 The very hallmark of jargon is the long noun phrase,
2 the long noun phrase as subject and the long noun
phrase as complement,
3 the two coupled by a minimal verb.
2 1 2 1 2 2 1
- O. The very hallmark of jargon is the long noun phrase, the
3 3 2 3 3 3 2
long noun phrase as subject and the long noun phrase as
3 3 4 6 5
complement, the two coupled by a minimal verb.
2 1 2 1 2 2 1
- R. The very hallmark of jargon is the long noun phrase as
2 2 4 3 4 4 3
subject coupled by a minimal verb to the long noun phrase
4
as complement.

SECOND SET

Original: weight, 4 (76 divided by 19); T-unit, 34 words
free modifiers: 20 of 34 words (59%; *for students* is not
a free modifier because it can be conjoined with *and* to
the main clause)

Rewrite: weight, 3.47 (59 divided by 17); T-unit, 30 words
 free modifiers: 1 of 30 words (3%; *however* is the only
 free modifier)

In sentence weight, the original is 1.15 times "heavier" than
 the rewrite; in T-units, the original is 1.13 times longer than the
 rewrite; in free modifiers, the original has a greater percentage
 devoted to them than the rewrite in a ratio of 59% to 3%, 19.67
 times greater.

O. 1 The curriculum is at best, / , a design to be interpreted by
 teachers, for students—
 2 however
 2 by teachers with varying degrees of ability and insight,
 2 for children with differing equipment in intelligence and
 language background.

O. 1 1 2 2 1 2
 3 3 4 6 5
 The curriculum is at best, however, a design to be interpreted
 by teachers, for students—by teachers with varying degrees of
 6 6 4 6 5
 ability and insight, for children with differing equipment in
 6 7 6
 intelligence and language background.

R. 1 1 2 2 1 2
 3 5 4 5 5
 by teachers with varying degrees of ability and insight for
 3 5 4 5 6
 children with different equipment in intelligence and language
 5
 background.

NOTES

¹These values are computed from the typical structures Hunt offers and differ
 somewhat from the statistical compilation of "synopsis scores" given by Hunt (1970,
 20), which are: grade 4, 5.42; grade 8, 9.84; grade 12, 11.3; skilled adult, 14.78.

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