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(金東一)*



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가 (, , 1997).

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가 (, , 1997).

(, handwriting), (spelling), (written expression-composition)

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“3P(, ,)”

“ (posture)”

“ (position)”

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unit) T-unit . T-unit 가

T-unit . T-unit 가 (1) T-unit

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(, 2000)

(Lerner, 1993; Mercer, 1987)

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(CBM: Curriculum-Based Measurement)

(Deno, 1985; Shinn, 1987)

(, 2000)

1.

278

가 143 51.4%

, 가 135 48.6%

1 77 27.2%, 2 80 28.3%, 3 79 27.0%, 4 47

16.6%

265 93.6% , 18 6.4% .

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가 (story starter)

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(, 2000; Salvia & Ysseldyke, 2001; Shinn, 1987)

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- /T : T-unit
- /T : T-unit
- : , 1 (가) 7 (가)

(, 2000)

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T-unit	T-unit	
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T-unit (T)	// 가 // 가 //	
T-unit (T)	...	
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	1	2	3	4	
	39.82 (19.07)	54.44 (23.06)	65.28 (26.78)	69.45 (26.78)	55.98 (26.30)
	2.14 (2.71)	1.96 (2.46)	2.19 (2.91)	1.98 (3.05)	2.08 (2.75)
	.71 (1.16)	.91 (1.17)	1.27 (1.88)	1.23 (4.05)	1.01 (2.11)
	19.55 (10.27)	25.53 (11.20)	30.28 (12.34)	33.02 (13.51)	26.47 (12.65)
	1.77 (2.26)	1.66 (1.81)	1.73 (2.12)	1.66 (2.21)	1.71 (2.08)
	.90 (1.23)	.61 (1.00)	.59 (1.09)	.53 (.93)	.67 (1.09)
	.05 (.28)	.06 (.29)	.09 (.43)	.02 (.15)	.06 (.31)
	.96 (1.53)	1.14 (2.01)	1.32 (2.17)	1.32 (2.53)	1.17 (2.03)
	.05 (.28)	.10 (.30)	.04 (.19)	.02 (.15)	.06 (.25)
	.12 (.43)	.05 (.27)	.13 (.72)	.04 (.20)	.09 (.47)
T-unit	3.65 (2.25)	4.21 (2.21)	4.51 (2.28)	4.74 (2.74)	4.23 (2.36)
T	.00 (.00)	.05 (.27)	.06 (.25)	.00 (.00)	.03 (.19)
T	.45 (.50)	.41 (.50)	.56 (.50)	.45 (.50)	.47 (.50)
	.16 (.61)	.14 (.41)	.11 (.48)	.06 (.32)	.12 (.48)
	4.26 (1.73)	3.89 (1.71)	3.86 (1.65)	4.23 (1.49)	4.04 (1.67)
	37.68 (18.31)	52.48 (22.95)	63.09 (26.88)	67.47 (26.37)	53.90 (26.04)
	17.78 (9.71)	23.86 (10.96)	28.54 (12.28)	31.36 (13.44)	24.76 (12.45)
/T	6.28 (3.70)	6.90 (2.97)	7.62 (4.19)	8.09 (3.79)	7.14 (3.71)
/T	5.73 (3.58)	6.42 (2.83)	7.09 (4.01)	7.60 (3.72)	6.62 (3.58)

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 65.28, 4 69.45 . 1 2 , 2 3
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 . 1 4.26, 2 3.89, 3 3.86, 4 4.23

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	52.17 (25.65)	60.48 (26.60)	56.21 (26.40)
	2.41 (2.88)	1.68 (2.51)	2.05 (2.73)
	1.21 (2.74)	.78 (1.10)	1.00 (2.12)
	25.05 (12.73)	28.25 (12.46)	26.60 (12.68)
	1.99 (2.30)	1.39 (1.80)	1.70 (2.09)
	.83 (1.20)	.51 (.95)	.68 (1.09)
	.08 (.40)	.04 (.19)	.61 (.32)
	1.29 (2.21)	.97 (1.69)	1.14 (1.98)
	.07 (.28)	.04 (.21)	.06 (.25)
	.1 (.39)	.07 (.55)	.09 (.48)
T-unit	4.08 (2.42)	4.40 (2.31)	4.23 (2.37)
T	.02 (.14)	.04 (.24)	.03 (.20)
T	.40 (.49)	.55 (.50)	.47 (.50)
	.13 (.47)	.12 (.49)	.12 (.48)
	3.70 (1.63)	4.40 (1.61)	4.04 (1.66)
	.50 (24.99)	.60 (26.53)	.54 (26.10)
	.23 (12.18)	.27 (12.49)	.25 (12.45)
/T	7.02 (3.96)	7.34 (3.48)	7.18 (3.73)
/T	6.42 (3.73)	6.92 (3.43)	6.67 (3.59)

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52.17

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	45.83 (36.29)	56.67 (25.42)	55.98 (26.30)
	4.11 (4.78)	1.94 (2.51)	2.08 (2.75)
	1.33 (1.88)	.99 (2.13)	1.01 (2.11)
	21.61 (17.25)	26.80 (12.25)	26.47 (12.65)
	3.0 6(2.96)	1.62 (1.98)	1.71 (2.08)
	.72 (1.02)	.67 (1.09)	.67 (1.09)
	.06 (.24)	.06 (.32)	.06 (.31)
	3.11 (4.54)	1.04 (1.68)	1.17 (2.03)
	.00 (.00)	.06 (.25)	.06 (.25)
	.22 (.55)	.08 (.47)	.09 (.47)
T-unit	3.61 (2.85)	4.27 (2.32)	4.23 (2.36)
T	.06 (.24)	.03 (.19)	.32 (.19)
T	.44 (.51)	.47 (.50)	.47 (.50)
	.00 (.00)	.13 (.49)	.12 (.48)
	2.33 (1.24)	4.15 (1.63)	4.04 (1.67)
	41.72 (35.06)	54.73 (25.18)	53.90 (26.04)
	18.56 (16.34)	25.18 (12.07)	24.76 (12.45)
/T	6.73 (3.82)	7.17 (3.71)	7.14 (3.71)
/T	5.54 (3.54)	6.69 (3.58)	6.62 (3.58)

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4.11 1.94, 가 3.0, 1.62
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T-unit 가
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가 T-unit
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(2, 3, 4) (1, 2, 3, 4)
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			/	
	.64**	.42**	.10	.16**
	-.10	-.01	-.19**	-.13*
	.66**	.42**	.12*	.17**
	.62**	.39**	.10	.13*
	-.09	-.01	-.17**	-.14*
	.65**	.40**	.13*	.15*
T-unit	.45**	.17**	.07	.07
/T	.09	.18**	.03	.04
/T	.16*	.19**	.08	.07

** p < .01, * p < .05

< 6>

							T-unit	/T	/T
	1.00								
	.15*	1.00							
	1.00**	.04	1.00						
	.95**	.17**	.94**	1.00					
	.15*	.97**	.05	.18**	1.00				
	.94**	.01	.95**	.97**	.01	1.00			
T-unit	.65**	.15*	.64**	.67**	.17**	.65**	1.00		
/T	.18**	.01	.18**	.23**	.01	.23**	-.45**	1.00	
/T	.22**	-.14*	.24**	.27**	-.14*	.30**	-.41**	.98**	1.00

** p< .01, * p< .05

< 6>

1.00

.95

.94,

T-unit

.65

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						T	T		
	.03	.02	-.12*	-.08	-.12	-.08	.00	.15*	.11
	-.11	-.01	.07	-.06	-.03	.03	.04	-.06	.10
/	-.01	.00	-.25**	.06	-.07	-.03	.01	.07	-.04
	-.15*	-.07	-.08*	-.05	-.03	.06	.15*	-.01	-.10
	.10	.02	.13*	.04	-.03	.07	-.00	.05	.23**
	.61**	.04	.88**	.18**	.36**	.04	-.03	-.10	.19**
	.04	.02	.04	.02	-.07	.06	.00	.06	.22**
	.12	.02	.15*	.04	-.04	.10	-.05	.03	.26**
	.60**	.04	.85**	.22**	.35**	.05	-.04	-.10	.19**
	.02	.01	.01	.00	-.10	.09	-.04	.05	.23**
T-unit	.12*	.05	.12*	.09	-.03	.10	-.20**	.00	.33**
/T	-.00	-.07	.03	-.03	-.02	-.03	.20**	.02	-.08
/T	-.10	-.08	-.10	-.06	-.08	-.03	.19**	.04	-.09

** p< .01, * p< .05

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가

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 1 77 , 2 76 , 3 75 , 4 37
 (2 , 2; 3 , 3; 4 , 4; 1 , 1;
 2 , 2; 3 , 3; 4 , 4).

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	2	3	4	1	2	3	4
	4.00	3.50	4.40	2.14	1.86	2.12	1.32
5%IM	3.72	3.33	3.89	1.79	1.60	1.73	1.08
	1.50	2.00	2.50	1.00	1.00	1.00	1.00
	6.06	4.43	4.90	2.71	2.16	2.84	1.94
	0	0	1	0	0	0	0
	13	10	17	14	12	15	8
4	13.00	7.50	5.25	3.00	2.00	3.00	2.00
	1.892	1.720	2.207	2.252	2.096	2.201	1.935

Note. 5%IM 5% trimmed mean(5%)

< 8>

가

< 9>

	2	3	4	1	2	3	4
	2.50	2.25	3.60	1.77	1.62	1.71	1.14
5%IM	2.33	2.22	3.33	1.47	1.42	1.43	.95
	1.00	2.00	2.50	1.00	1.00	1.00	1.00
	3.70	2.06	3.13	2.26	1.70	2.13	1.57
	0	0	1	0	0	0	0
	8	5	11	13	9	9	6
4	6.00	3.75	4.25	3.00	2.00	3.00	2.00
	1.70	.713	1.63	2.43	1.868	1.70	1.60

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1.03, 3

1.21, 4

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3.25, 4

3.00

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	3	4	1	2	3	4
	.25	1.20	.90	.64	.61	.35
5%IM	.22	1.17	.77	.52	.46	.22
	.00	1.00	.00	.00	.00	.00
	.50	1.14	1.23	1.02	1.11	.79
	0	0	0	0	0	0
	1	3	5	4	5	4
4	.75	2.25	2.00	1.00	1.00	.50
	2.00	.66	1.29	1.71	2.09	3.21

Note. 2 가 .

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	4	1	2	3
	.10	.52	.07	.09
5%IM	.06	.00	.03	.04
	.00	.00	.00	.00
	.32	.28	.30	.44
	0	0	0	0
	1	2	2	3
4	.00	.00	.00	.00
	3.162	5.83	4.99	5.35

Note. 2, 3 가 .

< 12>

	2	3	4	1	2	3	4
	3.25	3.25	3.00	.96	1.03	1.21	.86
5%IM	2.89	3.06	2.56	.74	.81	.93	.59
	.00	1.50	1.00	.00	1.00	.00	.00
	6.50	4.57	4.22	1.53	1.52	1.97	1.65
	0	0	0	0	0	0	0
	13	10	14	7	9	10	8
4	9.75	7.75	3.50	1.00	2.00	2.00	1.00
	2.00	1.81	2.32	2.18	2.90	2.36	2.96

< 13>

	1	2	3	4
	.52	.11	.04	.03
5%IM	.00	.06	.00	.00
	.00	.00	.00	.00
	.28	.31	.20	.16
	0	0	0	0
	2	1	1	1
4	.00	.00	.00	.00
	5.83	2.63	4.79	6.08

Note. 가 .

< 14>

	2	4	1	2	3	4
	.75	.10	.12	.13	.13	.03
5%IM	.72	.06	.03	.00	.04	.00
	.50	.00	.00	.00	.00	.00
	.96	.32	.43	.11	.74	.16
	0	0	0	0	0	0
	2	1	2	1	6	1
4	1.75	.00	.00	.00	.00	.00
	.86	3.16	3.78	8.72	7.14	6.08

Note. 3 가 .

T-unit (< 15 18>) . < 15>

T-unit . < 16>

T-unit ,

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가

< 15> T-unit

	3	2	3
	.25	.05	.05
5%IM	.22	.00	.04
	.00	.00	.00
	.50	.28	.23
	0	0	0
	1	2	1
4	.75	.00	.00
	2.00	5.80	4.06

Note. 2, 4 1, 4 가 .

< 16> T-unit

	2	3	4	1	2	3	4
	.25	.50	.50	.45	.42	.56	.43
5%IM	.22	.50	.50	.45	.41	.57	.42
	.00	.50	.50	.00	.00	1.00	.00
	.50	.58	.53	.50	.50	.50	.50
	0	0	0	0	0	0	0
	1	1	1	1	1	1	1
4	.75	1.00	1.00	1.00	1.00	1.00	1.00
	2.00	.00	.00	.19	.33	-.247	.284

< 17>

	1	2	3	4
	.16	.14	.12	.08
5%IM	.03	.08	.02	.05
	.00	.00	.00	.00
	.61	.42	.49	.36
	0	0	0	0
	3	2	3	2
4	.00	.00	.00	.00
	3.87	3.07	4.48	4.78

Note. 가 .

< 18>

	2	3	4	1	2	3	4
	1.25	1.25	1.40	.71	.89	1.27	1.19
5%IM	1.17	1.22	1.22	.54	.77	.99	.41
	.50	1.00	.50	.00	.50	1.00	.00
	1.89	1.26	2.22	1.16	1.14	1.91	4.44
	0	0	0	0	0	0	0
	4	3	6	7	4	12	27
4	3.25	2.25	2.00	1.00	1.75	2.00	1.00
	1.66	1.13	1.65	2.89	1.27	3.08	5.76

T - unit

(< 19 20>)

< 19> T - unit

. T - unit

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8.10,

8.07

. < 20> T - unit

< 19> T-unit

	2	3	4	1	2	3	4
	5.75	4.15	8.07	6.28	6.95	7.81	8.10
5%IM	.	4.14	7.70	5.94	6.75	7.20	7.73
	7.00	4.12	7.00	5.45	6.54	6.93	8.00
	2.17	1.50	4.35	3.70	3.00	4.21	3.69
	3.25	2.33	3.80	2.33	2.40	3.67	3.71
	7.00	6.00	19.00	29.00	16.33	31.00	24.00
4	.	2.81	3.83	3.65	3.63	3.10	3.53
	-1.73	.08	2.02	3.35	.93	3.30	2.28

< 20> T-unit

	2	3	4	1	2	3	4
	4.18	3.17	6.93	5.73	6.50	7.30	7.78
5%IM	.	3.25	6.60	5.40	6.35	6.75	7.40
	3.25	3.89	6.44	5.00	6.28	6.37	7.20
	1.66	1.68	3.93	3.58	2.83	3.99	3.70
	3.00	.67	2.60	1.75	2.00	3.00	3.36
	6.00	4.25	17.00	27.50	16.33	29.00	24.00
4	.	2.74	3.00	3.50	3.46	2.69	4.20
	1.69	-1.92	2.08	3.30	.85	3.21	2.38

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composition) 가

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가 143 , 가 135 1 77 27.2%, 2 80
28.3%, 3 79 27.0%, 4 47 16.6% 265
93.6% 18 6.4%

가 (story starter)

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, 1 4

가 가 . 1
39.82 2 54.44 3 65.28, 4 69.45 . 1 2

, 2	3	가	, 3	4	
4.23	가	1	4.26, 2	3.89, 3	3.86, 4
		가		가	
	4.11	1.94,	가	3.0,	1.62
			가		
			9가		
			, T-unit		가
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			T-unit		
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	(2, 3, 4)	(1, 2, 3, 4)			
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T-unit

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* 2001 12 18 / 1 2001 12 27 / 2 2002 1 25

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Abstract

Assessment of Writing and Error Analysis for Diagnosing Elementary Students

Kim, Dong-il*

Writing is an important basic literacy skill, which covers handwriting, spelling, and written expression. Writing is different in important ways from other basic skills such as mathematics or reading. Writing requires the writer to focus on the objective (story, plot, and so forth) while also focusing on the techniques of writing. These involves such diverse skills as handwriting or typing, spelling, punctuation, and the correct use of grammar and style. Deficits and errors in writing include various problems which the students with learning disabilities typically show in the classroom. A conventional measure of syntactic complexity is the minimal terminable unit, or T-unit. A T-unit is an independent clause including any dependent clauses attached to or embedded in it. The purpose of this study is to present a means of measuring the writing ability of elementary students, using fluency measures as well as T-unit, and identifying errors in writing. The present study comprise developments of writing proficiency indicators and error prevalence of written expression from general education students as well as special class students. The implications of writing assessment with error analysis are discussed.

■ **Key Words** : writing assessment, analysis of writing, learning disabilities in written e
measurement indicator.

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