

## (TCT-DP)

1 6 458 (TCT-DP)

가

U-

2가 1 3 가

4 (4-grade slump)

4 (4-grade slump)

가

가

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: , E-mail: yoyu2001@kmu.ac.kr

(Cropley, 1999; Isaksen, 1987; Sternberg, 1999). (Amabile, 1985).  
 Guilford(1950)가 ‘ 가 ’ ,  
 ( , 1995, ) . Guilford Torrance ( , 2002; Woodman & Scheonfeldt, 1989).  
 Torrance Guilford . Sternberg(1993) .  
 , 가 . Jellen Urban(1986) .  
 Torrance , , 가 (composition ability of organization) 가 가 가 Hennessey Amabile(1993) 가 (drop, slump) 가 U- .  
 가 U- 가 (Torrance, U- 1968, Runco & Charles, 1997).  
 (De Bono, Torrance(1963, 1968) 1986; Guilford, 1971) , . Torrance(1963) Torrance

4  
,  
Runco  
(conventional  
(1999)  
period)  
,  
U-  
Torrance 1968  
,  
가 가 4 '4 Torrance(1976) 4  
(fourth grade slump)  
Ligon(1957) 8 10  
가 가  
3  
, 4  
4  
가  
(, 1990,  
)  
Johnson(1985),  
(1987),  
(1985) 1  
IQ 6 Torrance  
Torrance  
가  
가  
가  
, 5 4  
가 6 4  
4 가 U 5  
4, 5 가 가 6

:

5  
6  
Torrance  
, 4  
(1990)  
Charles  
4, 5  
Runco(2000-20001)  
Wallach Kogan  
3,  
(2000)  
4 가  
,  
,  
2 3  
가 , 3, 4, 5, 6 가 2, 4, 6  
가 Torrance  
5  
3, 5  
smoothing method  
1 3  
가 4  
가  
'4 U-  
가 4  
,  
4  
5 6 U- 가  
,  
가  
Levene(1984) Torrance  
3, 4, 5  
, 2 3  
가  
3 5  
가  
가  
4  
3 4



:

Torrance Jellen Urban(1986)

Ausubel(1978) 가 Torrance (Test for Creative Thinking-Drawing Production: TCT-DP)가 Urban (Components model)

Torrance

1994). (Lubart, 가

1984 Urban 가

2가 13 가 (Torrance, 1998).

가 가 (Urban

(1993) Urban(1991) & Jellen, 1996).

가 가 (gestalt),

가 (TCT-DP)

1.

1	2	3	4	5	6	
45	42	46	46	37	37	253
35	34	35	30	40	31	205
80	76	81	76	77	68	458

Urban(1986) Jellen (TCT-DP)

Jellen Urban 1986  
(Test for Creative Thinking-  
Drawing Production: TCT-DP)

1 6 4 95 가  
A4  
6 ( ,  
)  
가  
가  
가  
1 6 458 15 ~30 14 가  
1

????????????????????????????

가

6

4

24

1m

(Urban

“

& Jellen, 1996). 가  
60cm X 45cm

2

,

]

가

6

4

).”

가 가

2. (TCT-DP) 가

- (Cn: Continuation): (0 -6 ).
- (Cm: Completion): , , (0 -6 ).
- 가(Ne: New elements): , 가 (0 -6 ).
- (Cl: Connections with a line): ( , 가 (0 -6 ).
- (Cth: Connections made to produce a theme): (gestalt) (0 -6 ).
- (Bfd: Boundary breaking that is fragment dependent): (□) (0 / 3 / 6 ).
- (Bfi: Boundary breaking that is fragment independent): (0 / 3 / 6 ).
- / (Pe: Perspective): (2 ) , , 3 (0 -6 ).
- (Hu: Humor): (0 -6 ).
- (Uc: Unconventionality): ( , ) 가
- Uc-a (0 / 3 ).
- Uc-b , (0 / 3 ).
- Uc-c (0 / 3 ).
- Uc-d (0 -3 ).
- (Sp: Speed): (0 -6 ). 가



가 (6: 1, 2, 3, 4, 5, 6) × (2: , ) (LSD test)

15 ~25

3

1

6

3.

( )

2 가  
(Urban & Jellen, 1996),  
(TCT-DP)

r(457) = .91

6

r(457) = .97

1	15.33(4.24)	13.94(3.42)	14.73(3.94)
2	17.10(5.04)	18.26(4.87)	17.62(4.97)
3	20.70(6.55)	20.60(5.00)	20.65(5.90)
4	15.83(4.10)	18.67(3.98)	16.95(4.26)
5	19.65(4.55)	21.15(5.91)	20.43(5.32)
6	18.84(5.23)	20.74(6.22)	19.71(5.71)

[ $F_{(5, 446)} = 16.54, p < .01$ ][ $F_{(1, 446)} = 4.34, p < .05$ ]

가

Urban(1991)

(LSD test,  
 $p < .05$ ) 4

4.

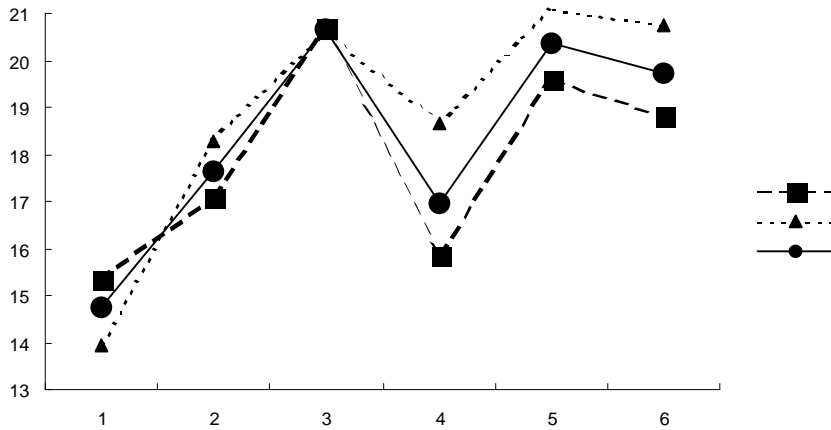
6

가

	1	4	2	6	5	3
14.73	1					
16.95	4	*				
17.62	2	*				
19.71	6	*	*	*		
20.43	5	*	*	*		
20.65	3	*	*	*		

\*  $p < .05$ 3 ( $M = 20.65$ ), 5 ( $M = 20.43$ ) 6

:



1.

( $M = 19.71$ )

(TCT-DP)

가

가

2 ( $M = 17.62$ ), 4 ( $M =$

가

16.95)

1 ( $M = 14.73$ )

가

(6: 1, 2, 3

가

, 4, 5, 6)  $\times$  (2: ,

2 4

) 가

가

1

5 .

가

Cn[ $F_{(5,$

, 1

3

가

$_{446}) = 14.54, p < .01$ ], Cm[ $F_{(5, 446)} = 35.33, p <$

가 4

5

6

$.01$ ], Cl[ $F_{(5, 446)} = 3.52, p < .01$ ], Cth[ $F_{(5, 446)} =$

가

$2.36, p < .05$ ], Bfd[ $F_{(5, 446)} = 2.60, p < .05$ ],

( $M = 18.89$ )가

( $M$

$p < .01$ ], Uc-a[ $F_{(5, 446)} = 7.15, p < .01$ ], Uc-b[ $F_{(5,$

= 17.91)

$_{446}) = 3.97, p < .01$ ], Uc-c[ $F_{(5, 446)} = 4.65, p <$

가

$.01$ ], Uc-d[ $F_{(5, 446)} = 5.63, p < .01$ ], Uc total[ $F_{(5,$

가 ( $M = 15.83$ )

[ $t_{(74)} = -2.99,$

$_{446}) = 11.05, p < .01$ ], Sp[ $F_{(5, 446)} = 20.49, p <$

$p < .01$ ],

.01] 가

Ne Bfi

1

가

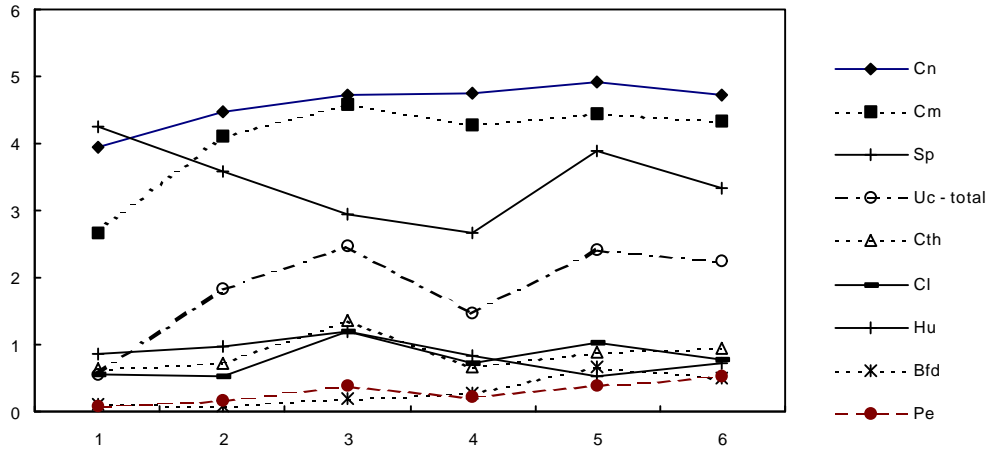
## 5. 가

	1	2	3	4	5	6
Cn	3.94(1.31)	4.46( .82)	4.73( .63)	4.74( .55)	4.91( .57)	4.72( .62)
Cm	2.66(1.60)	4.11(1.10)	4.59( .72)	4.29(1.00)	4.44( .91)	4.34( .77)
Ne	.90(1.67)	1.05(1.66)	1.44(1.75)	.88(1.19)	.97(1.43)	1.25(1.77)
Cl	.56(1.18)	.54( .89)	1.19(1.62)	.72(1.05)	1.03(1.20)	.79(1.03)
Cth	.65(1.35)	.72(1.21)	1.37(2.11)	.68(1.22)	.88(1.49)	.94(1.68)
Bfd	.11( .75)	.0( .69)	.19( .87)	.28(1.11)	.66(1.86)	.49(1.43)
Bfi	.15( .81)	.12( .59)	.15( .65)	.18( .71)	.31( .92)	.35( .97)
Pe	.0( .28)	.16( .37)	.40( .82)	.21( .44)	.38( .83)	.54( .82)
Hu	.86( .99)	.97( .99)	1.19(1.16)	.83(1.02)	.53( .91)	.72(1.16)
Uc-a	.23( .80)	.99(1.42)	.85(1.36)	.79(1.33)	1.44(1.51)	1.06(1.44)
Uc-b	.19( .73)	.24( .81)	.63(1.23)	.20( .75)	.18( .70)	.0( .80)
Uc-c	.0( .0)	.39(1.02)	.70(1.28)	.32( .93)	.55(1.16)	.51( .76)
Uc-d	.15( .42)	.20( .40)	.28( .48)	.16( .37)	.25( .46)	.57(1.19)
Uc-total	.56(1.23)	1.82(2.04)	2.47(2.41)	1.46(1.87)	2.42(1.92)	2.24(2.08)
Sp	4.24(1.00)	3.59(1.30)	2.95(1.22)	2.67(1.29)	3.90( .85)	3.32( .92)
	14.73	17.62	20.65	16.95	20.38	19.71

(LSD test,  $p < .05$ )

Cn( )	3, 4, 5, 6	, 3	1, 2, 4, 6	, 5	1,
	가	2	1	3	
, 4	1, 2	가	가	4	5
. 2	1	가	가	6	
1	3	6	Cth( )	3	6
Cm( )	3, 4, 5, 6	3	1, 2, 4, 5	가	
	가	1, 2, 4, 5, 6			
. 3	1, 2	가	. 1	3	
, 4, 5, 6	1	가	가	4	6
2	가				
. Cn( )	1	3	Bfd( )	5	
가	6		1, 2, 3, 4	가	6
. Cl( )				. 1, 2, 3, 4	
)	3	5		. 1, 2, 3, 4	

:



2. 가

가 5      Uc-total( )      3      5, 6  
 6      가      1, 2, 4  
 .      가      . 5, 6      1, 4  
 Pe( / )      6      3, 5      가      5, 6      가  
 .      2, 4      1  
 1, 2, 4      가      . 3      4, 5      2, 4      가      . 1  
 가      1, 2      3      가 4  
 .      1, 2, 3      가 4      5      6  
 가 5  
 가 6      Sp( )      1      5  
 가      2, 3, 4, 6      가  
 Hu( )      3      2      . 2      5, 6  
 .      1, 4, 5, 6      3, 4  
 가      . 2      1, 4, 6      1      4      가 5  
 .      5      가      6  
 . 2  
 가 3      4      2      가  
 5  
 가 6

Ne[F(1, 446) = 6.12, p < .05], Ucb[F(1, 446) = 5.13, p < .05], Ucd[F(1,

$_{446} = 50.52, p < .05]$ ,  $Sp[F_{(1, 446)} = 11.03, p < .01]$

Ne(가) ( $M =$  )  
 1.27)가 ( $M = .93$ ), Sp ( $M$  :  
 = 3.03)가 ( $M = 2.43$ ) . Uc-b 가 .  
 ( $M = .34$ )가 ( $M = .16$ ) , Uc-d 6.  
 ( $M = .30$ )가 ( $M = .20$ ) ,

Urban(1991)

가  $^2$  6 .  
 1. : 가 [  $\chi^2_{(5)} = 12.20, p < .05]$ .  
 가 1  
 2. : . 3 1 2 1  
 3. , ( ) 4  
 , 2 93%, 4 88%, 80%  
 : 가 5 6  
 4. . 1, 2 10% , 3  
 18.5%, 5 16.8%, 6 14.71%  
 : . 6 3, 5, 6 9~10%  
 6. ( )  $\chi^2$

	1 (N=80)	2 (N=76)	3 (N=81)	4 (N=76)	5 (N=77)	6 (N=68)	$\chi^2$
2	4(5.0)						
3	5(6.3)	1(1.3)					2.67
4	64(80.0)	71(93.4)	66(81.5)	67(88.2)	64(83.1)	58(85.3)	1.39
5	6(7.5)	3(4.0)	7(8.6)	7(9.2)	6(7.8)	3(4.4)	3.25
6	1(1.2)	1(1.3)	8(9.9)	2(2.6)	7(9.1)	7(10.3)	12.20*

:  $p < .05$ ;  $p < .10$  \*  $p < .05$

:

1. 2 4 1~2% , ( , 1990, ).

1 3 1 3 6, 7, 8

가 가 4 5

가 6

3 1,

2

1 6 가 (TCT-DP) (Sternberg, 1984).

4 (4-grade slump) Johnson(1985) Torrance(1968)

(1990)

(2000)

4 Torrance(1976) Sullivan

U- . 1 3 .

가 가 4 5 3 4

2가 , ,

1

3 가 , ,

4 (4-grade slump) .

가

( , 1990; , 2000; Jellen & Urban, 1986; Torrance, 1963, 1968).

가 Schachtel

Wilt(1959) 4

(allocentricity) 가

Khatena(1984), Torrance(1984)

Uc-total( )

가  
가 ) 4  
4 (2000)  
, , 가 가  
. 4 (4-grade slump)

가 . 6  
Cn(  
Cm( ) 가 .  
,  
가 , 4 가  
Cl( ),  
Cth( ) ,  
5 6 가  
4 ( , 1990; Guilford,  
Torrance 1968 1971; Jellen & Urban, 1988; Torrance, 1984)  
, , 4 가  
가  
가  
,  
, 가 가 가 ,  
(Fu, 1977; Raina,  
3 Pe( 1969).  
/ ) 3 6 , 가  
,  
. Jellen  
Urban(1986)  
(risk-taking) (TCT-DP)  
Bfi, , ( ),

- 가 .
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## On the Development of creativity by the TCT-DP in Korean children

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This study examined developmental trends and sex difference in children's creative abilities and potential. The subjects were 458 children(253 boys and 205 girls) grade 1 to 6. To measure the children's creative abilities and potential, the Test for Creative Thinking-Drawing Production(TCT-DP) made by Jellen and Urban was used and we tried to analysis both quantitative and qualitative perspectives. There showed U-shape development of creativity during elementary school period. The curve is appeared that the increase from 1st grade to 3rd grade and the drop or slump at 4th grade. Researchers explains this phenomenon that the younger children open and accpet directly stimulus around the world whereas fourth grade children stay on the conventional period. There was no significant sex difference except fourth grade children. The boys showed higher than the girls at this grade. The implications of these results are to speculate subcomponents of creativity and how and in which way different subcomponents of creativity develop.

*Keywords : TCT-DP, U-shape development, 4-grade slump, conventional period*