



, 1998; Fudala, 1970; Hodson & Paden, 1981; Shriberg & Kwiatkowski, 1985).

(1998) .86

가 76 % .

. Osberger (1992) 가 , 가

. Goel & Martin (1987) 가 30 %

. Most, Weisel & Lev-Matezky (1998)

가 가

가 , 가 가 가

가 가 가

가 .

가

가 (Bernthal & Bankson, 1998), 가

가

(Schiavetti, 1992).

가

가 (Monsen, 1978).

가 , 가

가 , (speech perception)

가 (Smith, 1975).

Boothroid (1984) 90 dB

.

(Hull, 1997),

( , 1995; Goehl & Kaffman, 1984),

(Ling, 1997; Wolk & Schildroth, 1986; Cole, 1992) .

,

가 가

( , 1994; , 1995; Smith, 1975; Ling, 1997; Boothroid, 1984; Goehl & Kaffman, 1984; Wolk & Schildroth, 1986; Cole, 1992; Osberger, 1992; Hull, 1997).

( , , , , , ) 가

1.

20 . 5 10 (1) , (2)  
dB 6 , (3) 6 , (4) 70  
, 가 , (5)  
, (6) 6 .

2.

가.

( , 1995) (K-BNT; .  
, 1997) 가 .

.

( , 1996) 가 ,

( , 1988; Gordon, 1987).

.

가 가

가 (Samar & Metz, 1988; Schiavetti, 1992; Kent,

1993).

, 30

30

30

3

(< > ).

3

가

가

가

가

(Osberger, 1992).

(1) 2 , (2)

( , 1972; , 1990; , 1993) , (3)

1

가

, (4)

CVCV

, 7

CVCVC

, (5)

가

가

가

, (6)

가

### 3.

가.

1 가

가

, 1 m

MZ-R5ST) (SONY ECM-MS907) (SONY

. 가

가 가 . 20  
 1  
 가 .  
 20 8 가 2  
 3 가 가 8  
 가 가  
 가 가 (Osberger, 1992). 가

, 가 (SONY MZ-R5ST) 가  
 가 가 ,

가 가

$$(\%) = \frac{\quad}{30(\quad)} \times 100$$

.

20% 2 가 가 , 1 가 가  
 가 92%

.

, , ( ), ( ),  
 ( ), ( ), , 8



130 dB, 가  
6,5 2  
70 dB  
4,3  
2;2

< - 2>

< - 2>

	K - BNT					
K - BNT	.475					
	.615*	.625*				
	.872**	.581*	.764**			
	.167	.577*	.177	.176		
	-.513*	-.290	-.098	-.469	-.411	
	.659**	.805**	.834**	.854**	.247	-.237
	.333	.455	.550*	.438	-.465	.134

\* $p < .01$ , \*\* $p < .001$

(K - BNT ), ,  
7 .87  
가  
K - BNT가 .66 .62  
가 - .51 , 가  
K - BNT가 .63,  
가 .81 , .58  
K - BNT  
K - BNT .60 .55  
.01 .75

- .47

- .47

가

7

가 4

4

(K-BNT),

(

), ( ) .

.8

가

( , 1998).

, , , t

< - 3>

< - 3>

, t

	<i>t</i>			
	-2.452E-02	.086	-.047	-.284
K-BNT	-1.418E-02	.177	-.019	-.080
	.300	.084	.852	3.550*
	-7.049E-02	.087	-.129	-.811

\*  $p < .01$

4

가

.852 가

가

.13

3

, K-BNT,

< - 4>

. < - 4>

,

(

),

(

),

(

)

.001 4 77.6 %  
 ( 1), 4 가 가  
 , 76 %  
 ( 2), 3 1.6 %

< - 4 >

	SS	df	MS	F	R <sup>2</sup>
1 <sup>1</sup>	751.682	4	187.921	12.974**	.776
2 <sup>2</sup>	736.221	1	736.221	56.942**	.760
1	217.268	15	14.485		
2	237.729	18	12.929		
	968.950	19			

<sup>1</sup> 1 : , K-BNT, ,

<sup>2</sup> 2 :

\*\*  $p < .001$

, , , 가  
 . 76 %  
 , 3 가 1.6 % 가 .  
 , ( , 1998) (Shriberg &  
 Kwiatkowski, 1985) 가  
 가

가 가 .

, 가



(Subtelny & Snell, 1988; Bernthal & Bankson, 1998).

가 ,

가 ( , 1998; Kent, Miolo & Bloedel, 1994), 가 Weston, Shriberg & Kwiatkowski (1988) 가 가 , Weston & Shriberg (1992)

가

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- (1998). . . . ( ), 『 가 』. . . .
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- . . . . (1995). 『 』. . . . :
- . . . . (1997). 『 』. . . . :
- . . . . (1995). 『 』. . . . :
- (1994). . . . , . . . . ( ). 『 』. . . .
- . . . . (1998). . . . 『 』. . . .
- . . . . 『, 3, 50-65.
- . . . . (1972). 3, 4, 5 . 『 』. . . .
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1	2	3

## ABSTRACT

# The Relationship Between Speech Intelligibility and Related Factors of Speakers in Prelingually Hearing Impaired Children Using Hearing Aids

**Misun Yoon\***, **Yoonkyoung Lee** (Interdisciplinary Program of Communication Disorders, Ewha Womans University)

**Hyun-Sub Sim** (Dept. of Special Education & Interdisciplinary Program of Communication Disorders, Ewha Womans University)

This study aimed to evaluate the relationship between the speech intelligibility and related factors of speaker in hearing impaired children using hearing aids. For the purpose of the study, the following 6 factors were selected as the related factors of speaker based on the previous studies: (1) chronological ages, (2) the first diagnostic date of hearing loss, (3) language ability, (4) articulation ability, (5) the degree of hearing loss, and (6) duration of education. The subjects were 20 prelingually hearing impaired children between the ages of 5 and 10 who have been using oral communication mode everyday. Their hearing losses ranged from 70 dB to 130 dB in better ear. Speech intelligibility, articulation ability and language ability were measured by using word intelligibility test, PCC (Percent of Consonant Correct) and two tests (reception: Korean Peabody Picture Vocabulary Test; expression: Korean Boston Naming Test), respectively. The results of the study were as follows: (1) the speech intelligibility had a strong positive correlation with three related factors of speakers: the articulation ability ( $r = .87$ ), the receptive language ability ( $r = .66$ ), the expressive language ability factor ( $r = .62$ ); (2) the speech intelligibility had a negative correlation with the degrees of hearing loss ( $r = -.51$ ) at the level of .01; and (3) the articulation ability alone explained the 76 % of speech intelligibility. These results suggest that the articulation ability factor appeared to be most influential among the 6 related factors of the speaker, which affects the speech intelligibility of prelingually hearing impaired children with hearing aids on. From the clinical perspective, the results also suggest that the treatment focused on improving the articulation ability could help to enhance verbal communication ability of hearing impaired children.

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\* e-mail: [yoonmisun@educyber.org](mailto:yoonmisun@educyber.org)