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(67) (55)

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69-55

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.Donohue, 2008; Martin & Clark, 2009; Smith, 2007)

.Hard of hearing

Deaf

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(Northern & Downs,

.2002)

(Bess & Humes, 2008; DeBonis &

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(Northern & Downs, 2002)

(Hallahan, Kuffman, & Pullen, 2009;
.Heward, 2006; Moores, 2001; Stach, 2009)

.(Moores, 2001)

Prelingually deafness

(English, 2007)

.Postlingually deafness

.(Kirk, Gallagher, & Anastasiow, 2003)

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(Smith, 2007) .(2010)

(Schrimmer, 2001; Paul, 2001). . 18

.(Paul, 2001) 35

54 35

(Marschark & Wauters, 2008)

.(Vernon & Andrews, 1990)

(Northern & Downs, 2002)

55 .(Moores, 2001)
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.(Marschark, Lang & Albertini, 2002)

(Northern & Downs, 2002)

(Briscoe, Bishop, Norbury, 2001; Trezek & Wang,
.2006)

.(Moores, 2001)
89 70

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(Northern & Downs, 2002)

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.(Moores, 2001)

.2008; Jackson, Paul, & Smith, 1997)

0.3

.(Paul, 2003) 1.0

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.(Marschark, Lang & Albertini, 2002)

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.(McLoughlin & Lewis, 2008; Moores, 2001)

(Dyer, Macsweeney, Szezerbinki,

Green, & Campbell, 2003; Gibbs, 2004; Gilbertson & Ferre,

/ .(2009
 / 89-35 .(McLoughlin & Lewis, 2008)
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 .(Heward, 2006)
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 • .(Paul, 2007)
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 () 90 -4
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 (Kelly, 1996)
 : .(2004)
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 / .(Smith, 2007)
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 Jackson, Paul, /
 (& Smith, 1997)
 51 :
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(Harris & Moreno, 2006)

(Briscoe, Bishop,

Norbury, 2001)

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85

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(Stephanie, 2008)

9000

(Dyer, Macsweeney, Szezerbinki, Green, & Campbell, 2003)

49

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(Gilbertson & Ferre, 2008)

(Gibbs, 2004)

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(Trezek & Wang, 2006)

123

(67)

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	.12	(44)	(31)
()	()		(14)
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	.2	(108)	(9)
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	.6		:
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	.9		
	.10	(Dechant &)	
	.11	(Briscoe,	Smith, 1977
	.12	(Stephanie, 2008)	Bishop, Norbury, 2001)
	.13	.(Gilbertson & Ferre, 2008)	
	.14	73	
	.15	61	
	.16	:	
	.17		:
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0.83	
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0.87	
0.86	

0.89 0.83

0,75

(3,26 -2,51)

(1,75-1)

(4 - 3,27) :

(2,50 -1,76)

12

: (2)

0.64	2.32	
0.75	2.49	
0.73	2.54	
0.61	2.08	
0.71	2.27	
0.63	2.36	

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 90 89-70 69-55 54
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2.18 2.74 () () :
 .(0.05 ≥ α)

.197 2.49 2.18 2.49
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0.007	120	2.74	0.64	2.49	0.61	2.18	
0.066	120	1.85	0.82	2.63	0.68	2.38	
0.135	120	1.51	0.77	2.65	0.68	2.45	
0.031	120	2.18	0.64	2.21	0.56	1.97	
0.198	120	1.29	0.76	2.37	0.67	2.20	
0.046	120	2.01	0.65	2.49	0.59	2.26	

:(4)

0.67	2.42	0.79	2.21	0.35	2.43	0.62	2.30
0.66	2.46	0.83	2.22	0.48	2.59	0.77	2.73
0.69	2.46	0.89	2.34	0.46	2.69	0.67	2.66
0.79	2.29	0.70	2.02	0.45	2.12	0.51	2.04
0.74	2.40	0.74	1.90	0.57	2.56	0.61	2.42
0.67	2.41	0.72	2.17	0.41	2.50	0.59	2.46

(4)

(4)

2.73

.2.22

(0.05 ≥ α)

(4)

2.42

.1.90

(0.05 ≥ α)

(4)

2.56

.1.90

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F

F
(0.05 ≥ α)

(6)

(0.05 ≥ α)

.(5)

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7.41 3.49

.(6)

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(8)

:(5)

0.481	0.83	0.34	3	1.02		
		0.41	118	48.33		
			121	49.35		
0.018	3.49	1.81	3	5.44		
		0.52	118	61.33		
			121	66.78		
0.127	1.94	1.00	3	3.00		
		0.52	118	60.90		
			121	63.90		
0.502	0.79	0.29	3	0.88		
		0.37	118	43.75		
			121	44.63		
0.000	7.41	3.25	3	9.76		
		0.44	118	51.84		
			121	61.60		
0.081	2.30	0.87	3	2.60		
		0.38	118	44.44		
			121	47.04		

:(6)

0.26	*0.51	0.13		
0.13	0.38			
0.25-				
0.02	*0.52	0.14-		
0.17	*0.66			
0.50-				

:(7)

90		89-70		69-55		54-35		
0.66	2.18	0.55	2.37	0.59	2.68	0.73	2.30	
0.75	2.33	0.71	2.55	0.77	2.96	0.69	2.42	
0.85	2.41	0.61	2.64	0.51	2.82	0.68	2.39	
0.68	2.01	0.50	2.01	0.56	2.31	0.60	2.29	
0.80	2.25	0.61	2.26	0.73	2.43	0.70	2.21	
0.69	2.26	0.54	2.40	0.56	2.67	0.64	2.34	

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(7)

.(10)

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.(8)

3.58 3.39 3.41 ()
 $\geq \alpha$

(
 2.94+2.60
 (0.05

F (8)
 (0.05 $\geq \alpha$)
 3.05 F

.(9)

2.34

(9)
 (0.05 $\geq \alpha$)

2.30 2.09 2.59 2.54

90

69-55

1.67 1.50 1.71 1.68 1.61

(7)

:

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69-55

:6

2.96

.2.33

90

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:5

()

.(11)

:(8)

0.063	2.49	0.98	3	2.95		
		0.39	119	46.87		
			122	49.82		
0.031	3.05	1.64	3	4.91		
		0.54	119	63.92		
			122	68.82		
0.151	1.80	0.93	3	2.80		
		0.52	119	61.71		
			122	64.51		
0.158	1.76	0.63	3	1.90		
		0.36	119	42.82		
			122	44.72		
0.832	0.29	0.15	3	0.45		
		0.52	119	61.68		
			122	62.13		
0.164	1.73	0.67	3	2.00		
		0.38	119	45.67		
			122	47.66		

:(9)

90	89-70	69-55	
0.1	0.1-	0.5-	54-35
*0.63	0.4		69-55
0.2			89-70

...

" " : (10)

0.001	115	3.41	0.56	1.61	0.61	2.34	
0.001	115	3.39	0.66	1.68	0.74	2.54	
0.000	115	3.58	0.59	1.71	0.72	2.59	
0.004	115	2.94	0.54	1.50	0.58	2.09	
0.011	115	2.60	0.65	1.67	0.71	2.30	
0.000	115	3.64	0.57	1.64	0.60	2.40	

" " : (11)

0.102	99	1.65	0.58	2.20	0.64	2.42	
0.003	99	3.03	0.72	2.29	0.73	2.73	
0.012	99	2.55	0.75	2.40	0.64	2.75	
0.496	99	0.68	0.54	2.02	0.56	2.10	
0.026	99	2.26	0.65	2.12	0.71	2.43	
0.017	99	2.44	0.58	2.23	0.59	2.52	

:1 (11)

2.26 2.55 3.03 ()
 $(0.05 \geq \alpha)$

2.43 2.75 2.73

2.12 2.40 2.29

(Gibbs, 2004)

:4

(Jackson, Paul, & Smith, 1997)

$\geq \alpha$)

69-55

(0.05

(Briscoe, Bishop, Norbury, 2001)

90

(Dyer, Macsweeney,

69-55

(Gibbs, Szezerbinki, Green, & Campbell, 2003)

55

(Harris & Moreno, 2006)

2004)

69

(Stephanie, 2008)

90

:2

(Moore, 2001; Northern & Downs, 2002)

($0.05 \geq \alpha$)

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$\geq \alpha$)

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($0.05 \geq \alpha$)

($0.05 \geq \alpha$)

(Hallahan, Kuffman, & Pullen, 2009;

(Harris & Moreno, 2006)

.Heward, 2006; Smith, 2007)

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Dechant, E. & Smith, H. 1977. *Psychology in teaching reading*. New Jersey: Prentice-Hall, Inc.

Dyer, A., Macsweeney, M., Szezerbinki, M., Green, L., & Campbell, R. 2003. Predictors of reading delay in deaf adolescents: The relative contributions of rapid automatized naming speed and phonological awareness and decoding. *Journal of Deaf Studies and Deaf Education*, V. 8, N. 3, p 216-229.

English, K. 2007. Audiologic rehabilitation services in the school setting. In: Roland L. Schow and Mitchael A. Nerbonne (Eds.), *Introduction to audiologic rehabilitation* (p.269-300). Boston: Allyn & Bacon.

Gibbs, S. 2004. The skills in reading shown by young children with permanent and moderate hearing impairment. *Educational Research*, V. 46, N. 1, p 17-27.

Gilbertson, D. & Ferre, S. 2008. Considerations in the identification, assessment, and intervention process for deaf and hard of hearing students with reading difficulties. *Psychology in the Schools*, V. 45, N.2, p

: 2004

: 2010

: 2009

Bess, F. & Humes, L. 2008. *Audiology: The fundamentals*. Philadelphia: Lippincott Williams & Wilkins.

Briscoe, J., Bishop, D. & Norbury, C. 2001. Phonological processing, language and literacy: A comparison of children with mild to moderate sensorineural hearing loss and those with specific language impairment. *Journal of Child Psychology and Psychiatry*, N. 42, p 329-340.

DeBonis, D. & Donohue, C. 2008. *Audiology: Fundamentals for audiologist and health professionals*. Boston: Allyn & Bacon.

- Moore, D. 2001. *Educating the deaf: Psychology, principles, and practice*. Boston: Houghton Mifflin Company.
- Northern, J. & Downs, M. 2002. *Hearing in children*. Philadelphia: Lippincott Williams & Wilkins.
- Paul, P. 2001. *Language and deafness*. Canada: Singular Thompson Learning.
- Paul, P. 2003. Processes and components of reading. In: Marc Marschark and Patricia Elizabeth Spencer (Eds.), *Oxford handbook of deaf studies, language and education* (p.97-109). New York: Oxford University Press.
- Paul, R. 2007. *Language disorders from infancy through adolescence: Assessment & intervention*. St. Louis, Baltimore: Mosby.
- Schrimmer, B. 2001. *Psychological, social, and educational dimensions of deafness*. Boston: Allyn & Bacon.
- Smith, D. 2007. *Introduction to special education: Teaching in An age of challenge*. Boston: Allyn & Bacon.
- Stach, B. 2009. *Clinical audiology*. San Diego: Singular Publishing Group, INC.
- Stephanie, C. 2008. Accommodations use for statewide standardized assessments: Prevalence and recommendations for students who are deaf or hard of hearing. *Journal of Deaf Studies and Deaf Education*, V. 13, N. 1, p 55-96.
- Trezek, B. & Wang, Y. 2006. Implications of utilizing a phonics-based reading curriculum with children who are deaf or hard of hearing. *Journal of Deaf Studies and Deaf Education*, V. 11, N. 2, p 202-213.
- Vernon, M. & Andrews, J. 1990. *The psychology of deafness: Understanding deaf and hard of hearing people*. New York: Longman.
- 104-120.
- Hallahan, D., Kauffman, J. & Pullen, C. 2009. *Exceptional learners: Introduction to special education*. Boston: Allyn & Bacon.
- Harris, M. & Moreno, C. 2006. Speech reading and learning to read: A comparison of 8 year old profoundly deaf children with good and poor reading ability. *Journal of Deaf Studies and Deaf Education*, V. 11, N. 2, p 189-201.
- Heward, W. 2006. *Exceptional children: An introduction to special education*. Upper Saddle River: Merrill & Prentice Hall.
- Jackson, W., Paul, P. & Smith, J. 1997. Prior knowledge and reading comprehension ability of deaf adolescents. *Journal of Deaf Studies and Deaf Education*, V. 2, N. 3, p 173-184.
- Kelly, L. 1996. The interaction of syntactic competence and vocabulary during reading by deaf students. *Journal of Deaf Studies and Deaf Education*, V. 11, N. 1, p 76-90.
- Kirk, S., Gallagher, J. & Anastasiow, N. 2003. *Educating exceptional children*. Boston: Houghton Mifflin Company.
- Marschark, M. & Wauters, L. 2008. Language comprehension and learning by deaf students. In: Marc Marschark and Peter C. Hauser (Eds.), *Deaf cognition: Foundations and outcomes* (p.308-350). New York: Oxford University Press.
- Marschark, M. Lang, H. & Albertini, J. 2002. *Educating deaf students: From research to practice*. New York: Oxford University Press.
- Martin, F. & Clark, J. 2009. *Introduction to audiology*. Boston: Allyn & Bacon.
- McLoughlin, J. & Lewis, R. 2008. *Assessing students with special needs*. Upper Saddle River: Merrill Prentice Hall.

Assessing Reading Skills among Hearing-Impaired Students In Jordan and its Relation To Some Variables

*Ibrahim A. F. El-Zraigat **

ABSTRACT

The main purpose of the present study was to assess reading skills among hearing impaired students. The sample of the study consisted of 123 students enrolled at schools for deaf children in Jordan, 55 males and 67 females. A reading skills test was developed and used in assessing reading skills of students. The reliability and validity of the test were established. The researcher used the t-test and ANOVA to answer the research questions. The results indicated that the hearing impaired students had poor reading skills in general. The results showed that female students had better readings skills than male students on the dimensions of vocabularies and comprehension. Additionally, findings revealed that students at grade four and five had better reading skills than students at six grades on the dimensions of fluency and phonological awareness. Also, the results showed that students who had a hearing loss of 55-69 dB had better reading skills than students of 90 dB or above on the dimensions of fluency. Differences between mean scores of students who used sign language and total communication were in favor of students who used total communication on the all dimensions. In addition, the results of study showed that there were significantly differences on the dimensions of fluency, visual discrimination, and phonological awareness in favor of students who had used hearing aids. The study recommended focusing on the out put of reading skills to these students' curricula.

Keywords: Hearing Impaired, Reading Skills, Hearing Impairment, Special Education.