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Instructional Practices used by Special Education Teachers in Classrooms of Young Children with Deafness

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Abstract

The purpose of this quantitative investigation was to identify instructional practices used by special education teachers in classrooms of young children with deafness. The population of study involved all 388 teachers serving in 34 Government Deaf & Defective Hearing Schools located in four zones of the Punjab province. A sample of 68 teachers (two teachers from each school) teaching to young children with deafness in class K.G.I and K.G.II was selected. A self developed and validated questionnaire (cronbach Alpha: 0.92) was used to elicit teachers' responses on instructional practices made by them in teaching speech, speech reading, reading recognition, writing and mathematics, on parental involvement and evaluation. Data were collected personally, through email, and registered post. Collected data were analyzed on SPSS. Independent sample *t*-test and ANOVA was run to see differences in instructional practices on the basis of teachers' gender, position, qualification, number of children, and four zones of the Punjab. Major findings revealed that teachers were having problems in teaching to and working with young children with deafness due to overcrowded classrooms, lack of teaching staff, unavailability of hearing aids, lack of parental cooperation etc. conclusions were drawn and recommendations to Punjab Special Education Department of Pakistan were made.

Keywords: Instructional practices, young children with deafness, special education teachers, Punjab province

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Introduction

First few years of a child's life are of significant importance for shaping his subsequent life in the coming years. Bloom (1964) and Kirk (1958) asserted that external experiences and healthy environment determine the style of a child's development. National Head Start program, in 1965, played a vital role in forming public focus on early childhood education highlighting ceaseless endeavours of US institutions (Hinitz, 2014). The backbone importance of early childhood education in the whole education system was recognized soon after the creation of Pakistan. The Pakistan Educational Conference (1947) emphasized the education of children between three through six years in special schools. Report of the Commission on National Education (1959), and National Education Policy and Implementation Programme (1979) stressed the importance of education and rehabilitation of children with special needs. Additionally, the formulation of National Policy for Persons with Disabilities (2002), in the coming years, proved a breakthrough in throwing light on the equal rights, facilities, and opportunities for persons with disabilities with particular emphasis on early detection and intervention of children with special needs. National Education Policy (2009) noticeably accepted the foremost important position of early years by using the term Early Childhood Education (ECE), and recommending one year pre- primary education for young children and two year specialised training for their teachers.

A considerable research has highlighted a significant gap in academic achievement between students with and without deafness (Meadow-Orleans, 2001; Marschark, 2006). The SAT-9 calculated the median reading comprehension score for 17 and 18 year old students with deafness and hard of hearing which was approximately equal to that of grade four students without deafness (Gallaudet Research Institute, 2005). This gap has been associated with the dearth of research and ineffectiveness of instructional practices being used by teachers in teaching to deaf and hard of hearing children (Marschark, 2006). Sufficient research studies emphasizing the instructional practices, teachers, curricula, and program uniqueness are not available on a large scale (Meadow-Orleans, 2001).

The quality of programs for young children with deafness depends on focusing classroom interaction and engagements, classroom setting, teachers' qualities, their professional development, administrative and support services, and parental contribution (Buysee & Hollingsworth, 2009). These programs are required to be designed to facilitate teaching learning process, to develop an internationally acceptable curriculum structure which is flexible and wide, to include families in the process, and concentrate on mixing groups with diversified needs and capabilities (Sandall, Hemmeter, Smith, & McLean, 2005).

The strong connection between early years skills and later development requires age –specific instructional practices adopted by teachers of young children with deafness within the structure of programs for these children. These instructional practices would support the learning process of children in the classroom, implementation of different components of age-appropriate curriculum, development of activities fit for the child (Council for Exceptional Children, 2001; Trivette & Dunst, 2000).

After going through a number of research studies it is evident that performance of educated individuals with deafness is not up to the mark in speech, speech reading, reading recognition, writing, and mathematics (Akhtar & Inam, 2005; Galaudet Research Institute, 2005; Wahid & Ishfaq, 2000; Stinson & Walter, 1997). Their communication skills are not developed to the extent to have interaction with persons without deafness (Parveen, 2007; Latif & Watto, 2005; Hart & Risley, 1995). It seems that some gaps are lying in their early years education, specifically in the instructional practices of the teachers who are responsible for the implementation of curriculum developed for young children with deafness in Government deaf & Defective Hearing Schools in the Punjab province of Pakistan.

Objectives of the Study

The present research was conducted to find out instructional practices of the special education teachers regarding teaching speech, speech reading, reading recognition, writing, and mathematical skills. It was also intended to throw light on the endeavours of special education teachers in providing guidance to the parents and putting efforts in evaluating the performance of young children with deafness.

Method

It was a quantitative study in nature. The population of the study included 388 special education teachers working in 34 Government Deaf & Defective Hearing Schools (GDDHS) established in 31 districts in four zones of the Punjab province of Pakistan. Two teachers dealing with young children with deafness in class K.G.1 and K.G.2 from each school were taken as sample of the study. In this way, sample included 68 (2x34) special education teachers.

The data from teachers were collected using a self developed questionnaire consisting of two parts. Part one comprised 14 items on demographic information about the teachers regarding name of the teacher (optional), gender, age, academic qualification, designation, professional qualification, area of specialization, training

courses/workshops attended, total experience with young children with deafness, class, and number of children in class. The main purpose of gathering this information was to better understand the sample characteristics. Part two consisted of five sub scales: 1. Speech (statement 1- 10), 2. Speech Reading (11- 15), 3. Reading (16- 26), 4. Writing (27-34), 5.Mathematics (35-43), 6.Parental Guidance (44- 50), 7.Evaluation (51- 60).All statements (1-60) were on five point (always, frequent, often, rare, never) Likert type scale. Validity of the instrument was ensured by taking opinions of five special educationists having experience of dealing with young children with deafness. Reliability of the questionnaire was determined through pilot testing (Cronbach alpha= 0.92).

Data Collection Procedure

First of all, the consent of all heads of 34 deaf schools regarding filling up the questionnaires from teachers was taken by dropping emails, posting letters, and making phone calls. The purpose and details of the study were briefed to them. After seeking their permission in writing, the respective special education teachers dealing with young children with deafness were contacted and requested for cooperation in the filling up of the questionnaires. Data were collected from 32 (47%) teachers personally, from 20 (29%) through email, and from 16 (24%) through postal service. It took approximately 16 days in collecting duly filled in questionnaires back from the teachers. The return rate was 100%.

Results

Table 1

Special education teachers' demographic information

Variable	Description	Number	Percentage
Gender	Male	7	10.3
	Female	61	89.7
	Total	68	100
Age	20-25	2	2.9
	26-30	33	48.5
	31-35	20	29.4
	36-40	8	11.8
	41-45	3	4.4
	46-50	1	1.5
	above 50	1	1.5
	Total	68	100.0

Designation	SSET	35	51.5
	JSET	17	25.0
	Psychologist	9	13.2
	any other	7	10.3
	Total	68	100.0
Professional Qualification	B.Ed	23	33.8
	T.D.	10	14.7
	M.Ed	18	26.5
	Diploma in Psychology	8	11.8
	Any other	1	1.5
	Nil	8	11.8
	Total	68	100.0
General Qualification	B.A.	9	13.2
	M.A. Special Education	44	64.7
	M.Sc Psychology	10	14.7
	M.Phil	2	2.9
	Any other	3	4.4
	Total	68	100.0
Zones	zone 1	12	17.6
	zone 2	18	26.5
	zone 3	10	14.7
	zone 4	28	41.2
	Total	68	100.0
Area of Specialization	Deafness	55	81
	Psychology	9	13
	Any other	4	6
	Total	68	100.0
Courses attended	Nil	28	41.2
	Speech diploma	14	20.6
	Sign Language diploma	14	20.6
	Audiology diploma	12	17.6
	Total	68	100.0
Experience of teacher	below one year	1	1.5
	1-5	26	38.2
	6-10	28	41.2
	11-15	13	19.1
	Total	68	100.0

Classes of teachers	K.G.1	34	50.0
	K.G.2	29	42.6
	Combined	5	7.4
	Total	68	100.0
Strength of students	5-10	11	16.2
	11-15	12	17.6
	16-20	19	27.9
	21-25	17	25.0
	above 25	9	13.2
	Total	68	100.0

Table 2

ANOVA for difference in mean scores of instructional practices adopted by special education teachers on the basis of zones

Zones	*SS*	*DF*	*M*	*F*
Between Groups	1832.578	3	610.859	1.063
Within Groups	36776.481	64	574.633	
Total	38609.059	67		

* p> 0.05

Table 2 shows that a one-way Analysis of Variance between groups was conducted on the basis of four zones to identify difference among instructional practices adopted by special education teachers of young children with deafness. Teachers' responses were collected on seven components i.e. speech, speech reading, reading, writing, mathematics, parental guidance, & evaluation. There was no statistically significant difference among the instructional practices of special education teachers in all four Zones: F (3, 64) = 1.06, p= .37. It means that teachers of all four Zones were adopting same practices in teaching to young children with deafness.

Table 3

Independent sample t-test to compare mean scores of instructional practices of special education teachers on the basis of their gender

Variable	Male			Female			95% CI for	*T*	*DF*
Instructional practices	*M*	*SD*	*N*	*M*	*SD*	*N*	mean difference		
Total scores	208.7	24.66	7	208.9	24.13	61	-19.45, 19.08	-.019	66

Table 3 indicates that there was no significant difference between the mean scores of instructional practices of male (*M* = 208.7, *SD* = 24.66) and female special education teachers (*M* = 208.9, *SD* = 24.13); *t* (66) = -.019, p= .86 (two-tailed). The magnitude of the difference in the means (mean difference = -.18, 95% CI: -19.45 to 19.08) existed. It means that the male and female teachers were adopting same instructional practices in teaching to young children with deafness.

Table 4

ANOVA for difference in mean scores of instructional practices of special education teachers on the basis of their qualification

Sources of variation	*SS*	*Df*	*MS*	*F*
Between Groups	7593.909	4	1898.477	3.856
Within Groups	31015.150	63	492.304	
Total	38609.059	67		

Table 4 shows that there was statistically significant difference among the instructional practices of special education teachers on the basis of their qualification: *F* (4, 63) = 3.85, *p*= .007. It means the teachers' instructional practices were differing on the basis of their qualification in teaching to young children with deafness.

Post-hoc comparisons using the Tukey HSD test indicated that the mean scores of teachers with M.Phil (*M* = 180.00, *SD* = 11.3) and additional qualifications (*M* = 241.00, *SD* = 7.54) were significantly different from the mean scores of teachers with B.A (*M* = 212.25, *SD* = 29.03), M.A Special Education (*M* = 203.90, *SD* = 21.59), and M.Sc. Psychology (*M* = 176.75, *SD* = 21.01). It means that teachers with M.Phil, and other additional qualification were teaching to young children with deafness in a better way.

Table 5

ANOVA for difference in mean scores of instructional practices of special education teachers on the basis of their designation

Sources of variation	*SS*	*DF*	*MS*	*F*	*Sig.*
Between Groups	2107.668	3	702.556	1.232	.305
Within Groups	36501.391	64	570.334		
Total	38609.059	67			

Table 5 shows that there was no statistically significant difference among the instructional practices of teachers on the basis of their designation: F (3, 64) = 1.23, p= .305. It means that the teachers of all designations (S.S.ET, J.S.E.T, Psychologists, and working on any other designation) were adopting same instructional practices in teaching to young children with deafness.

Table 6

ANOVA for difference in mean scores of instructional practices of special education teachers on the basis of their professional qualifications

Sources of variation	*SS*	*Df*	*MS*	*F*
Between Groups	2275.796	5	455.159	.777
Within Groups	36333.263	62	586.020	
Total	38609.059	67		

Table 6 depicts that there was no statistically significant difference among the mean scores of instructional practices of special education teachers on the basis of their professional qualification: F (5, 62) = .77, p= .75. It means that the teachers holding different professional qualifications (B.Ed., T.D., M.Ed., and Diploma in Psychology) were adopting same instructional practices in teaching to young children with deafness. The real difference in the mean scores between the groups was medium. The effect size, calculated using eta squared, was .05.

Table 7

ANOVA for difference in mean scores of instructional practices of special education teachers on the basis of refresher courses attended

	SS	*Df*	*MS*	*F*
Between Groups	458.071	3	152.690	.256
Within Groups	38150.988	64	596.109	
Total	38609.059	67		

Table 7 depicts that there was no statistically significant difference among the instructional practices of teachers on the basis of refresher courses attended by them: F (3, 64) = .25, p=.85. It means that the teachers who had attended different refresher courses on audiology, speech, and sign language were adopting same instructional practices in teaching to young children with deafness. The real difference in the mean scores between the groups was small. The effect size, calculated using eta squared, was .01.

Table 8

ANOVA for difference in mean scores of instructional practices of special education teachers on the basis of their experience

Source of variation	*SS*	*Df*	*MS*	*F*
Between Groups	929.991	2	464.996	.802
Within Groups	37679.068	65	579.678	
Total	38609.059	67		

Table 8 depicts that there was no statistically significant difference among the mean scores of instructional practices of teachers on the basis of their experience: F (2, 65) = .80, p= .45. It means that the teachers having experience of different years were adopting same instructional practices in teaching to young children with deafness. The real difference in the mean scores between the groups was small. The effect size, calculated using eta squared, was .02.

Table 9

ANOVA for difference in mean scores of instructional practices of special education teachers on the basis of strength of children

Source of variation	*SS*	*Df*	*MS*	*F*
Between Groups	2151.372	4	537.843	.929
Within Groups	36457.687	63	578.693	
Total	38609.059	67		

This table depicts that there was no statistically significant difference among the mean scores of instructional practices of teachers on the basis of number of children in their classes: F (4, 63) = .92, p=.45. It means that teachers having different number of children in their classes were adopting same instructional practices in teaching to young children with deafness. The real difference in the mean scores between the groups was medium. The effect size, calculated using eta squared, was .05.

Discussion

The present study was conducted to find out transactions (instructional practices) of special education teachers in teaching speech, speech reading, reading recognition, writing, and mathematics to young children with deafness. The study also focused on teachers' efforts in guiding parents, and evaluating the performance of young children with deafness. The results exhibited that all special education teachers in all of the four zones were employing same transactions in teaching to

young children with deafness and dealing with their parents. It means that no extra efforts were being put by them in uplifting the academic conditions of children. The reasons might be lack of staff, exceeding number of children in one class, and lack of resources etc. This condition leads to disparity between the academic achievement of students with and without deafness. Meadow-Orleans (2001), and Marschark (2006) have linked this gap with the shortage of research and ineptness of instructional practices.

It is also noteworthy that a significant difference was found among the transactions of special education teachers on the basis of their qualifications. It was investigated that teachers having qualification of M.Phil and masters degree in other subjects in addition to degree in special education were using better transactions. It promotes the notion of encouraging teachers with additional qualification through granting incentives in the form of monetary benefits and upgradation.

Recommendations

The results of the study have highlighted that special education teachers working in all of the 34 Government Deaf & Defective Hearing Schools located in 31 districts of four zones of the Punjab province of Pakistan were employing approximately same transactions in dealing with young children with deafness and their parents. A significant difference was only found on the basis of additional qualification of special education teachers. Therefore, it is recommended that teachers having extra degrees other than degrees in special education should be given preference at the time of appointment. Furthermore, on job special education teachers should be encouraged to receive further education.

Additionally, availability of human and material resources in the form of teacher aides and assistive devices in the deaf schools should be ensured to bring about improvement in the transactions adopted by special education teachers being employed in the classrooms of young children with deafness. Moreover, a comprehensive program for providing guidance to the parents of young children with deafness should be made through mobilizing special education teachers. Most importantly, monitoring of the young children's development in the areas of speech, speech reading, reading recognition, writing, mathematics, and evaluation is needed to be conducted on sound footing.

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