



## Advance Social Science Archives Journal

Available Online: <https://assajournal.com>

Vol.2 No.4, Oct-Dec, 2024. Page No. 393-402

Print ISSN: [3006-2497](#) Online ISSN: [3006-2500](#)

Platform & Workflow by: [Open Journal Systems](#)



### ASSESSMENT STRATEGIES EMPLOYED BY SPECIAL EDUCATION TEACHERS TO ASSESS ACADEMIC ACHIEVEMENT OF HEARING IMPAIRED PUPILS AT SECONDARY LEVEL

<b>Dr. Hina Hadayat Ali</b>	Assistant Professor/Coordinator, Department of Special Education, University of Education, Lahore, Faisalabad Campus, Pakistan Email: <a href="mailto:hina.hadayat@ue.edu.pk">hina.hadayat@ue.edu.pk</a>
<b>Dr. Muhammad Nazir</b>	Lecturer Special Education, Department of Special Education, University of Education, Lahore, Faisalabad Campus, Pakistan Email: <a href="mailto:muhammad.nazir@ue.edu.pk">muhammad.nazir@ue.edu.pk</a>
<b>Shams Ul Haq</b>	Lecturer, Department of Educational Development Karakorum International University Ghizer Campus Gilgit Baltistan Email: <a href="mailto:Shamsulhaq@kiu.edu.pk">Shamsulhaq@kiu.edu.pk</a>

#### ABSTRACT

Hearing impairment adversely affects the educational performance of pupils with hearing impairment. The current study aimed to identify the academic assessment strategies employed by special education teachers for hearing impaired pupils at secondary level in district Faisalabad. A sample of 60 teachers of pupils with hearing impairment was selected for the study using convenience sampling technique. A self-developed questionnaire with 20 questions was used for the purpose of data collection from the respondents. The data collected from the teachers was analyzed in terms of mean and standard deviation. The strategies used by the special educators for the assessment of students with hearing impairment showed that majority of the respondents ( $M=4.38$ ,  $S.D=0.761$ ) were using test questions with sign language interpretation to assess the students with hearing loss. A great number ( $M=4.27$ ,  $S.D=0.756$ ) of participants were using models and pictures to assess the educational performance of the students with hearing loss. The instruments used by the special educators for the assessment of students with hearing impairment represented that majority of the respondents ( $M=4.27$ ,  $S.D=0.972$ ) were using sign language and cued speech to assess the students with hearing loss. The problems faced by the special educators for the assessment of students with hearing impairment indicated that many of the respondents ( $M=4.03$ ,  $S.D=0.974$ ) had familiarity with the use of modern tools in assessing the students with hearing, and most of the teachers ( $M=3.80$ ,  $S.D=0.782$ ) were facing time constraints in test administration. It was inferred that majority of the respondents opined that they give extra examples along with the test instructions, and test questions are interpreted through sign language to enhance student's understanding, as well as short and concise questions were used to assess the academic performance of pupils with hearing impairment. The sign language and cued speech were predominantly used as assessment tools. Problems of the teachers included the time constraint in assessing the students with hearing loss. The study will help teachers and professional in educational assessment of the students with hearing impairment.

**Key Words:** Assessment Strategies, Pupils with Hearing Impairment, Secondary Level.

## **INTRODUCTION**

Special education is a relatively young discipline. Special education is an integral part of society's response to the needs and civil rights of individuals with disabilities. It is a multidisciplinary field whose practices are influenced by developments in education, but also by events and currents in the cultural, social, economic, technological, medical and legislative arenas. Special education's primary goals are ending segregated placements in school, work, and community settings, ensuring equal access to educational supports and services and improving society's attitudes about people with disabilities (John et al., 2005; Kuder, 2008).

Hearing impairment means an impairment in hearing, whether permanent or fluctuating, that adversely affects a child's educational performance (Black et al., 2002; Cromwell, 2005). Deafness means a hearing impairment that is so severe that the child is impaired in processing linguistic information through hearing, with or without amplification, that adversely affects a child's educational performance (Mangal, 2007; Andrews et al., 2016).

Assessment is a dynamic and multi-faceted process with variable aims (Bachman, 2004). It is used to find out how much student has acquired in terms of knowledge and learning skills (Anaf & Yamin, 2014). The assessment can be continuous, final examination or a combination of both. The method of assessment is not the target but its impact on student learning is the important (Cawthon & Wurtz, 2009). The term 'assessment' is used to refer to judgments on individual pupil performance and achievement of learning goals. It covers classroom-based assessment as well as large-scale external tests and examinations (Nusche et al., 2012).

## **Literature Review**

Adebomi and Olufemi (2013) narrated that most direct approach for assessment of pupils who are hearing impaired is to use tests designed for hearing pupils. In doing so, teachers may need to make certain modifications in the stimulus demands or the response requirements, how the questions are presented and how answers are given. There are five types of change or accommodation that alter the measurement techniques but do not interfere with the standard content (Cawthon & Leppo, 2013). Changes can be made in: sensory modality; written format; time constraints; test conditions, and performance method. Hearing-impaired pupils may need a change in the stimulus presentation (Dupuis et al., 2010). An appropriate change involves administering the test in American Sign Language (ASL), British Sign Language or any other mode used by the student. A sign language interpreter can read the questions before hand.

Pupils may have problems if they are distracted by too many materials on a page, or they may have difficulty keeping their place while working on the page. Some pupils may be able to do the assessment activities as presented but may need more time (Cawthon & Leppo, 2013). Changes in the time constraints of assessment include: administer tests in more than one session; allow a longer time period for each test and present more breaks within each testing session. When standardized tests are

used it is essential that the teacher include information about the time extension in the final report.

It is a valuable practice to mark on the page what was completed during the regular test time and then allow the student to continue (Kisuu, 2011). By comparing the two pieces of information, the teacher may gain additional information on how the student would perform under regular time constraints. When pupils with hearing impairment have problems taking standardized tests in large groups with standardized instructions that dictate how the teacher and student interact, specific accommodations can be made. Changes in test conditions include: a) administer the test individually or to a small group; b) present the directions to the pupils in their primary mode of communication; c) repeat direction or re-explain until the pupils indicate understanding; and d) give extra examples along with the instructions.

When pupils with hearing impairment are unable to use conventional method, such as giving spoken response or using paper and pencil, they may need to modify their responses. Such modification can include the use of signifying their answer or making use of a multiple-choice pointing response communication in writing (Adebomi & Olufemi, 2013).

Assessment in the context of education has been used primarily "in deciding, collecting and making judgments about evidence relating to the goals of the learning being assessed", which makes no reference to how the information being collected and could be used (Harlen, 2006).

### **Objectives of the Study**

The objectives of the study were to:

1. Identify the assessment strategies used by the special education teachers for hearing impaired pupils.
2. Investigate the tools/technical instruments used in the assessment of pupils with hearing impairments.
3. Ascertain the problems faced by the special education teachers in the assessment of pupils with hearing impairment.

### **Research Questions**

Following research questions were explored in the study:

1. What are the assessment strategies used by the special education teachers for hearing impaired pupils?
2. What type of tools/technical instruments used in the assessment of pupils with hearing impairments?
3. What kind of problems faced by the special education in the assessment of pupils with hearing impairment?

## **METHODOLOGY**

### **Nature of the Study**

The study was carried out to explore the academic assessment strategies employed by special education teachers for hearing impaired pupils at secondary level. Study was descriptive research in nature. Descriptive research can be very concrete or abstract: it

depends on what we wish to describe. Survey design was chosen to be used in the current study to obtain the requisite information from the respondents.

### **Population of the Study**

The population of this study comprised of all the special education teachers presently teaching the pupils with hearing impairment in public and private special education institutes of district Faisalabad.

### **Sample of the Study**

A sample of 60 teachers of pupils with hearing impairment was selected for the study to figure out the assessment strategies used for hearing impaired pupils by their special education teachers.

### **Sampling Technique**

Convenience sampling technique was used for the selection of sample from special education teachers of pupils with hearing impairment. A convenience sample is one of the main types of non-probability sampling methods which is easy to administer the sample of the study.

### **Instrument of the study**

A self-developed questionnaire was used as a research tool for the purpose of data collection from the respondents of the study. The questionnaire was composed of 20 questions designed to collect the data from special education teachers of pupils with hearing impairment. The questionnaire was based on the five point Likert scale with following options: 1) Strongly Agree-5, 2) Agree-4, 3) Undecided-3, 4) Disagree-2, 5) Strongly Disagree- 1. The questions were pertaining to the assessment strategies used by the special education for the pupils with hearing impairment, instruments used by the special education teachers to assess the pupils with hearing impairment, and the problems faced by the special education teachers while assessing the pupils with hearing impairment.

### **Validation of Research Tool**

There was a need to have detail view and observation of the assessment strategies employed by special education teachers for hearing impaired pupils in order to design a valid research tool so researcher visited the special education schools of district Faisalabad and met with school administration and teaching staff, discussed the assessment strategies used the teaching staff and herself observed the assessment strategies being used in the classroom setting. The discussion with the teaching staff helped in designing a valid questionnaire. Afterwards researcher also studied detailed literature from the internet, books and encyclopedias to have deep insight into the topic under study. Researcher noted down the requisite traits and points from the literature. Researcher also met with the research supervisor and put the collected matter before her for further assistance. Research supervisor helped in selection, classification and formulation of the questionnaire in a suitable order and cooperatively helped to validate the questionnaire.

### **Reliability of Research Tool**

The reliability of the research tool was tested using cronbach alpha statistics. The reliability score  $r=0.84$  exhibited that tool of the research was adequately reliable to be used in the study.

### Collection of Data

Researcher prepared copies of the questionnaire for the data collection according to the size of the selected sample. Researcher visited the special education institutes and met with the teaching staff of pupils with hearing impairment. The subjects of the study were very responsive and cooperative. Researcher shared the objectives of the study with respondents and distributed the questionnaires among them for completion. The filled questionnaires were collected back by the researcher at the spot herself. The completed questionnaires were classified and carefully kept in record for its further utilization in the study.

### Statistical Treatment

Researcher arranged the collected responses in correct order and got the data analysis done by means and standard deviation. Each statement of questionnaires was elaborated in detail with all the tables formulated in the data analysis section.

### DATA ANALYSIS AND RESULTS

Data analysis refers to deriving some meaning from the observations that have been made during the research project (Sullivan & De-Jong, 1994). The analysis presented the responses descriptions and experiences of the respondents. The issues investigated in the study were the assessment strategies used by the special education teachers for hearing impaired pupils, tools/technical instruments used in the assessment of pupils with hearing impairments, and the problems faced by the special education teachers in the assessment of pupils with hearing impairment. A sample of sixty teachers of pupils with hearing impairment was selected for the study. A questionnaire comprising twenty questions was formulated as research tool. Researcher visited the special educational institutions of the children with hearing impairment and approached the teachers. The questionnaires were given to the respondents and taken back after completion. The data was analyzed in terms of percentage. The detail of data analysis has been given below.

#### Table 1

Assessment strategies used by the special education teachers for students with hearing impairment

Assessment Strategies for students with hearing impairment	Min	Max	M	S.D
1. Test questions are interpreted through sign language to enhance student's understanding.	1	5	4.38	.761
2. Short and concise questions are used to assess the educational performance of students with hearing impairment.	1	5	4.15	.799
3. Give extra examples along with the test instructions to increase student comprehension.	1	5	4.30	.743

4.	Educational performance is assessed using the models and pictures along with the written content.	1	5	4.27	.756
5.	The concept comprehension is assessed by the body language of the students.	2	5	4.05	.699
6.	Minor mistakes are avoided while marking the student test scores.	1	5	4.00	.759
7.	Extra time is given to complete the assignments.	1	5	4.10	.796
8.	Tests with easy and familiar language are administered to assess student performance.	1	5	4.15	.606
9.	Poor level of understanding of concept leads to repeat instruction in the class.	1	5	4.07	.899
10.	Graph papers are used to assess the mathematical precision of the students.	1	5	3.40	1.061

The strategies used by the special educators for the assessment of students with hearing impairment have been depicted in the table 1. Majority of the respondents (M=4.38, S.D=0.761) were using test questions with sign language interpretation to assess the students with hearing loss. A great number (M=4.27, S.D=0.756) of participants were using models and pictures to assess the educational performance of the students with hearing loss. A large number of respondents (M=4.30, S.D=0.743) used extra examples with instructions, most of the participants (M=4.15, S.D=0.799) were using short and concise questions in easy form in familiar language to assess the progress of students with hearing loss.

**Table 2**

Tools/technical instruments used in the assessment of students with hearing impairments

Instruments used to assess students with hearing impairment	Min	Max	M	S.D	
1.	Written tests are used for the educational assessment of students.	2	5	4.17	.924
2.	Computer based tests are administered to assess the student performance.	1	5	3.28	1.121
3.	Augmentative communication techniques are used assess the student performance.	1	5	3.85	.880
4.	Sign language is the best mode to assess the student academic performance.	1	5	4.27	.972
5.	Cued speech is used to assess the student performance.	3	5	4.27	.578

The instruments used by the special educators for the assessment of students with hearing impairment have been expressed in the table 2. Majority of the respondents (M=4.27, S.D=0.972) were using sign language and cued speech to assess the students with hearing loss. Most of the participants (M=4.17, S.D=0.924) were using written tests to assess the educational performance of the students with hearing loss. About

half of respondents (M=3.85, S.D=0.880; M=3.28, S.D=1.121) were using augmentative communication techniques and computer based tests as a tool to assess the students with hearing loss.

### Table 3

Problems faced by the special education teachers in the assessment of students with hearing impairment

Problems faced by teachers in assessing the HI students	Min	Max	M	S.D	
1. Teachers are familiar with the use of modern tools used for the assessment of students with hearing impairment.		1	5	4.03	.974
2. School administration lacks in provision of special tools for the assessment of student performance.		1	5	3.47	1.200
3. Parents provide poor support their deaf children in test assignments.		1	5	3.72	1.106
4. Teachers face time constraints in test administration.		2	5	3.80	.732
5. Students fail to show interest in assessment activities.		1	5	2.77	1.198

The problems faced by the special educators for the assessment of students with hearing impairment have been exhibited in the table 3. Many of the respondents (M=4.03, S.D=0.974) opined that teachers had familiarity with the use of modern tools in assessing the students with hearing, most of the teachers (M=3.80, S.D=0.782) were facing time constraints in test administration and a great number (M=2.77, S.D=1.198) of participants opined that students failed to show interest in assessment activities.

### Findings

The strategies used by the special educators for the assessment of students with hearing impairment showed that majority of the respondents (M=4.38, S.D=0.761) were using test questions with sign language interpretation to assess the students with hearing loss. A great number (M=4.27, S.D=0.756) of participants were using models and pictures to assess the educational performance of the students with hearing loss. A large number of respondents (M=4.30, S.D=0.743) used extra examples with instructions, most of the participants (M=4.15, S.D=0.799) were using short and concise questions in easy form in familiar language to assess the progress of students with hearing loss.

The instruments used by the special educators for the assessment of students with hearing impairment represented that majority of the respondents (M=4.27, S.D=0.972) were using sign language and cued speech to assess the students with hearing loss. Most of the participants (M=4.17, S.D=0.924) were using written tests to assess the educational performance of the students with hearing loss. About half of respondents (M=3.85, S.D=0.880; M=3.28, S.D=1.121) were using augmentative communication techniques and computer based tests as a tool to assess the students with hearing loss.

The problems faced by the special educators for the assessment of students with hearing impairment indicated that many of the respondents (M=4.03, S.D=0.974) opined that teachers had familiarity with the use of modern tools in assessing the students with hearing, most of the teachers (M=3.80, S.D=0.782) were facing time constraints in test administration and a great number (M=2.77, S.D=1.198) of participants opined that students failed to show interest in assessment activities.

### **Discussion**

The study was carried out to explore the academic assessment strategies employed by special education teachers for hearing impaired pupils at secondary level. Objectives of the study were: 1) to identify the assessment strategies used by the special education teachers for hearing impaired pupils, 2) To investigate the tools/technical instruments used in the assessment of pupils with hearing impairments, and 3) To ascertain the problems faced by the special education teachers in the assessment of pupils with hearing impairment.

The population of this study comprised of all the special education teachers presently teaching the pupils with hearing impairment in public and private special education institutes of district Faisalabad. A sample of 60 teachers of pupils with hearing impairment was selected for the study to figure out the assessment strategies used for hearing impaired pupils by their special education teachers. Convenience sampling technique was used for the selection of sample from special education teachers of pupils with hearing impairment. A questionnaire comprising 20 statements was used as a research tool for the purpose of data collection from the respondents (special education teachers of deaf pupils) of the study. The questionnaire was based on the five point Likert scale.

Researcher visited the special education institutes and met with the teaching staff of pupils with hearing impairment. The subjects of the study were very responsive and cooperative. Researcher shared the objectives of the study with respondents and distributed the questionnaires among them for completion. The filled questionnaires were collected back by the researcher at the spot herself. The completed questionnaires were classified and data analysis was made by means of percentage.

The results of the study exhibited that a high majority of the respondents inclined with the idea that test questions are interpreted through sign language to enhance student's understanding, as well as short and concise questions were used to assess the educational performance of pupils with hearing impairment. Most of the teachers were giving extra examples along with the test instructions to increase student comprehension, and they were using models and pictures along with written content to enhance the educational performance of the pupils with hearing impairment. Teachers were giving extra time for assignment completion, and tests with easy and familiar language were used for the pupils.

### **Conclusions**

The study conducted to investigate the academic assessment strategies employed by special education teachers for hearing impaired pupils at secondary level. It was noted that a high majority of the respondents inclined with the idea that test questions are



interpreted through sign language to enhance student's understanding, as well as short and concise questions were used to assess the educational performance of pupils with hearing impairment. Most of the teachers were giving extra examples along with the test instructions to increase student comprehension, and they were using models and pictures along with written content to enhance the educational performance of the pupils with hearing impairment. Teachers were giving extra time for assignment completion, and tests with easy and familiar language were used for the pupils.

The study investigated the tools/technical instruments used in the assessment of pupils with hearing impairments. It was inferred that majority of the respondents told that graph papers, written tests, computer based test and augmentative communication techniques were used to assess the performance of pupils with hearing impairment. The study ascertained the problems faced by the special education teachers in the assessment of pupils with hearing impairment. It was noted that most of the teachers were not familiar with the use of modern tools used for the assessment of pupils with hearing impairment, few of the pupils had poor interest in assessment activities, and teachers were facing time constraint in test administration for the pupils with hearing impairment.

### **Recommendations**

Following recommendations have been made on the study completion:

1. Teachers should use verbal techniques for the assessment of pupils with hearing impairment.
2. Augmentative strategy may be used for the assessment of pupils with deafness.
3. Simultaneous communication may be used for the assessment of pupils with hearing impairment.
4. Multimedia assessment should be effectively used for the pupils with hearing impairment.
5. Use of audio visual aids including charts, graphs and models should be used for the purpose assessment of pupils with hearing impairment.
6. Future research might be conducted at higher educational level including other categories of pupils with special needs.

### **Limitations and Delimitations**

The researcher was not able to conduct the study at broader level so due to shortage of resources only the district Faisalabad was included in the study. The present study was delimited to the teachers of pupils with hearing impairment serving in govt. & private special education schools of district Faisalabad. The sample of the study was delimited to the sixty teachers (30 male and 30 female).

### **Ethical Considerations**

Ethical considerations were observed by ensuring the complete safety and security of the respondents and their shared data and information. The data collected from the respondents was also kept safe and secure to be used for research purpose only.

### **Acknowledgement**

The supportive role of the special education teachers in provision of data to the researchers was very commendable and reliant. Researchers felt great pleasure to have

a good meet up with such prestigious people and collected the required data effectively.

### References

- Adebomi, O. Y. E. W. U. N. M. I., & Olufemi, A. D. I. G. U. N. (2013). Sources of Reproductive Health Information and Attitude towards Reproductive Health Practices among Female Adolescents with Hearing Impairment in Lagos and Oyo states, Nigeria. *African Journal for the Psychological studies of social issues*, 16(1), 28-36.
- Anaf, S. A., & Yamin, S. B. (2014). Difference and similarity of continuous assessment in Malaysian and Nigerian universities. *philosophy*, 5(1).
- Andrews, J. F., Hamilton, B., Dunn, K. M., & Clark, M. D. (2016). Early reading for young deaf and hard of hearing children: Alternative frameworks. *Psychology*, 7(4), 510-522.
- Bachman, L. F. (2004). *Statistical analyses for language assessment book*. Cambridge University Press.
- Black et al. (2002). Hearing loss, hearing handicap, and functional health status between African American and Caucasian American seniors. *Journal of the American Academy of audiology*, 13(09), 493-502.
- Cawthon, S. W., & Wurtz, K. A. (2009). Alternate assessment use with pupils who are deaf or hard of hearing: An exploratory mixed-methods analysis of portfolio, checklists, and out-of-level test formats. *Journal of Deaf Studies and Deaf Education*, 14(2), 155-177.
- Cawthon, S., & Leppo, R. (2013). Assessment accommodations on tests of academic achievement for pupils who are deaf or hard of hearing: A qualitative meta-analysis of the research literature. *American annals of the deaf*, 158(3), 363-376.
- Cromwell, J. (2005). Deafness and the art of psychometric testing. *Psychologist-Leicester*, 18(12), 738.
- Dupuis, K., Reed, M., Bachmann, F., Lemke, U., & Pichora-Fuller, M. K. (2010). The circle of care for older adults with hearing loss and comorbidities: A case study of a geriatric audiology clinic. *Journal of Speech, Language, and Hearing Research*, 62(4S), 1203-1220.
- Harlen, (2006). Age-related hearing loss in the Fischer 344/NHsd rat substrain. *Hearing research*, 241(1-2), 26-33.
- John, D., Bailey, R., Tan, & Cooke, B. (2005). Inclusive physical education: Teachers' views of including pupils with special educational needs and/or disabilities in physical education. *European Physical Education Review*, 11(1), 84-107.
- Kisuu, S. M. (2011). An assessment of the dispute resolution framework in sports Kenya.
- Kuder, S. J. (2008). Vocabulary instruction for secondary pupils with reading disabilities: An updated research review. *Learning Disability Quarterly*, 40(3), 155-164.
- Mangal, S. K. (2007). *Educating exceptional children: An introduction to special education*. PHI Learning Pvt. Ltd.
- Nusche, D., Santiago, P., McGregor, I., Ravela, P., & Toledo, D. (2012). *OECD reviews of evaluation and assessment in education: Mexico*. OECD Publishing.