

**CHAPTER - IV**  
**ANALYSIS OF DATA AND**  
**INTERPRETATIONS OF RESULTS**

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### ANALYSIS OF DATA AND INTERPRETATIONS OF RESULTS

#### 4.0.0 INTRODUCTION

Analysing research data is an important step in the dissertation process. It is the time that a researcher may reach important facts about the data collected, uncover facts that one might not otherwise have known. Assuming the need to analyse the data collected from the survey, the process begins with a quick review of the results, followed by analysis and reporting.

The present study has been formally stated as 'A Study on Online Learning in Hearing-Impaired Students at Higher Secondary Level in Terms of Students' Perceptions'. So, first step is to consider the perceptions of hearing-impaired students on online learning.

#### 4.1.0 STUDY OF THE PERCEPTIONS OF HEARING-IMPAIRED SCHOOL STUDENTS ON ONLINE LEARNING

The first objective of the investigation was to study the perceptions of hearing-impaired students on online learning. The study was conducted in 40 hearing-impaired students of higher secondary level. The data was analysed by finding out the percentage. The result related to the said objective is presented in table 4.1.

**Table 4.1 Perceptions of Hearing-Impaired Students**

Serial Number	Positive Statements	SA	A	U	DA	SDA
1	On-line educational setting helps you develop your writing skills efficiently.	27 (67.5%)	11 (27.5%)	2 (5%)	0	0

2	On-line educational setting helps you develop your reading skills, efficiently.	21 (52.5%)	16 (40%)	2 (5%)	0	1 (2.5%)
3	On-line educational setting helps you achieve social acceptance.	30 (75%)	7 (17.5%)	2 (5%)	1 (2.5%)	0
4	On-line educational setting enhances your academic performance, efficiently.	30 (75%)	8 (20%)	2 (5%)	0	0
5	On-line educational setting meets the specific needs of the hearing-impaired students, efficiently.	20 (50%)	16 (40%)	1 (2.5%)	3 (7.5%)	0
6	On-line educational setting helps to enhance level of participation in class activities and assignments.	24 (60%)	14 (35%)	2 (5%)	0	0
7	On-line education helps to choose studying atmosphere as per the learners' convenience.	18 (45%)	16 (40%)	6 (15%)	0	0
8	Through On-line education, instructors are able to use teaching-learning resources, efficiently.	4 (10%)	12 (30%)	14 (35%)	5 (12.5%)	5 (12.5%)

9	On-line education with the utilisation of technology augments better possibilities for the better understanding in hearing-impaired students.	21 (52.5%)	17 (42.5%)	1 (2.5%)	1 (2.5%)	0
10	On-line education increases social isolation within the class environment.	19 (47.5%)	19 (47.5%)	2 (5%)	0	0
<b>Serial Number</b>	<b>Negative Statements</b>	<b>SA</b>	<b>A</b>	<b>U</b>	<b>DA</b>	<b>SDA</b>
11	On-line education proliferates the negative experiences than face-to-face classes.	1 (2.5%)	2 (5%)	2 (5%)	23 (57.5%)	12 (30%)
12	On-line education increases the need for the role of instructor more than in face-to-face classes.	10 (25%)	13 (32.5%)	15 (37.5%)	1 (2.5%)	1 (2.5%)
13	On-line education does not ensure good and satisfiable factors needed for better learning experiences.	0	4 (10%)	7 (17.5%)	15 (37.5%)	14 (35%)
14	On-line education cannot foster a good teacher-student relationship.	5 (12.5%)	4 (10%)	16 (40%)	10 (25%)	5 (12.5%)
15	Particular preparations relating to technology which are inconvenient are needed to make to undergo On-line classes.	1 (2.5%)	1 (2.5%)	3 (7.5%)	17 (42.5%)	18 (45%)

16	The expectations of hearing-impaired students are unable to meet through On-line teaching.	7 (17.5%)	9 (22.5%)	18 (45%)	5 (12.5%)	1 (2.5%)
17	On-line education has more disadvantages over advantages.	0	1 (2.5%)	6 (15%)	11 (27.5%)	22 (55%)
18	On-line education fails to motivate the students in learning and to involve in other co-curricular activities.	1 (2.5%)	6 (15%)	12 (30%)	13 (32.5%)	8 (20%)
19	On-line education increases the difficulty level of the learning of students due to the lack of technological awareness.	0	0	4 (10%)	22 (55%)	14 (35%)
20	On-line education affected the quality and process of education adversely.	1 (2.5%)	1 (2.5%)	4 (10%)	14 (35%)	20 (50%)

Based on the percentage evaluation of the responses given by the students to both the positive and negative statements, indicates that there is no significant difference on the perceptions of hearing-impaired students on online learning with respect to traditional classrooms. Students who are supporting and rejecting the pros and cons of online learning are of equal proportion.

**Finding:** There is no significant difference on the perceptions of hearing-impaired students on online learning. From the above percentage table 4.1, it is evident that the hypothesis is proved. Therefore, the null hypothesis is hence accepted.

#### 4.2.0 STUDY OF THE PERCEPTIONS OF HEARING-IMPAIRED SCHOOL STUDENTS ON ONLINE LEARNING BASED ON GENDER

The second objective of the investigation was to study the perceptions of hearing-impaired school students on online learning based on gender. The study on perceptions based on gender was conducted among 40 students including boys and girls. The data were analysed with the help of mean and SD. The result to the said objective is presented in table 4.2.

**Table 4.2 Descriptive Statistics of Perceptions of Hearing-Impaired Students based on Gender**

Gender	N	Mean	Std. Deviation	Std. Error Mean	t
Boys	17	81.00	10.857	2.633	0.420
Girls	23	79.70	8.777	1.830	0.407

The mean and standard deviation of the perceptions of boys and girls of the classes are mentioned above in the table 4.2. The result shows that mean of boys is 81 and that of girls is 79.70 with a standard deviation 10.857 and 8.777 respectively. The t value of the perceptions of boys is 0.420 and of girls is 0.407 as per the table 4.2 which eventually says that there is no average level of perceptions on online learning based on gender.

**Finding:** Hearing-impaired students have no average level of perceptions on online learning based on gender. From the above table 4.2 and its interpretation, it is evident that the hypothesis is proved. Therefore, the null hypothesis is hence accepted.

#### 4.3.0 STUDY OF THE ACHIEVEMENT LEVEL OF HEARING-IMPAIRED SCHOOL STUDENTS THROUGH ONLINE LEARNING

The third objective of the investigation was to study the academic achievement level of the hearing-impaired school students through online learning. The study was administered in 40 hearing-impaired students. The data was analysed with the help of t-test and Pearson correlation. The result related to the said objective is presented in table 4.3.

**Table 4.3 Descriptive Statistics of Academic Achievement of Hearing-Impaired Students**

Gender	N	Mean	Std. Deviation	Std. Error Mean	t
Achieve 1	17	40.82	8.560	2.076	0.565
2	23	39.43	6.986	1.457	0.548

**Table 4.4 Correlation of Academic Achievement of Hearing-Impaired students**

Total	Pearson Correlation Sig. (2-tailed) N	Total	Achieve
		1	-.117 .473 40
Achieve	Pearson Correlation Sig. (2-tailed) N	-.117 .473 40	1 40

The mean and standard deviation of the academic achievement of boys and girls of the classes are mentioned above in the table 4.3. The result shows that mean of academic achievement of boys is 40.82 and that of girls is 39.43 with a standard deviation 8.560 and 6.986 respectively. The result clearly shows that boys have more academic achievement than girls. The t value of the academic achievement of boys is 0.565 and of girls is 0.548 as per the table 4.3. The t-test is followed by Pearson correlation to comprehend the academic achievement and is shown in the table above 4.4.

**Finding:** There is no significant difference in the achievement in hearing-impaired students with reference to gender. From the above table of correlation and t-test, it is evident that the hypothesis is proved. Therefore, the null hypothesis is hence accepted.