

***Reading Comprehension of Junior High School Students With Hearing Impairment  
in the Post Pandemic Classes***

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The IAFOR International Conference on Education in Hawaii 2024  
Official Conference Proceedings

**Abstract**

Reading is an essential life skill and one of the focal concerns of the academic system particularly among the learners. However, Junior High School (JHS) with hearing impairment in the post pandemic classes are facing challenges in reading comprehension. Their hearing impairment is pointed out to be the reason for their difficulty in comprehending what they are reading. In this regard, this study identified S.Y. 2022-2023 JHS students with hearing impairment as the respondents. It sought to determine the reading comprehension level, hearing impairment level, and reading comprehension level according to the level of hearing impairment. This study used the descriptive survey design. The respondents of this study were JHS students with hearing impairment. Universal sampling or total enumeration of the respondents was used. An adapted reading comprehension test was used to determine the reading comprehension. The students' hearing impairment levels were determined based on the profile of the students. Frequency count, percentage, and weighted mean were the statistical tools used to answer problems 1, 2, and 3. The results reveal that the overall level reading comprehension is literal level, hearing impairment is profound, and that the reading comprehension is not dictated by the hearing impairment level. In this regard, emphasis on the use of different post pandemic reading strategies should be reemphasized and considered by the teachers in order to develop and improve the reading comprehension of the JHS students with hearing impairment in the post pandemic classes.

Keywords: Reading Comprehension, Junior High School Students With Hearing Impairment, Post Pandemic Classes

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## **Introduction**

Bringing education back to face-to-face classes means that students even from special education are undergoing a phase of adjustment in their reading practices relevant to their reading comprehension. This transition poses a challenge on the reading comprehension of junior high school students with hearing impairment. Hence, this study aimed to determine the level of reading comprehension, hearing impairment, and the level of reading comprehension according to their hearing impairment in the post pandemic classes. This study can help reading coordinators understand the needs of the JHS students with hearing impairment that will be a basis for reading comprehension plans and strategies. This will help JHS students with hearing impairment based on the results of the reading comprehension test. Moreover, this can help educators make necessary adjustments in their overall teaching styles in order to meet the needs of the JHS students with hearing impairment. With this, the reading comprehension of JHS students with hearing impairment will benefit from SPED teachers' preparation and adjustment of teaching approaches.

## **Literature Review**

Bachik and Aladdin (2022) discovered that the impact of online learning amid the Covid-19 pandemic has been detrimental to students with hearing impairment. It has resulted in a substantial decrease in their performance on reading tasks, a decline in the application of prior knowledge, and a reduction in the average achievement level when completing reading comprehension assignments. However, effects of the pandemic are neither clear nor simple for deaf students (Kuhfeld, et. al. 2021).

In the Philippines, according to Magsambol (2020), instructing students with special needs online has been challenging in the Philippines. In 2019, even prior to the pandemic and post pandemic research showed that the level of hearing impairment of SHS students with hearing impairment does not necessarily affect the level of reading comprehension (Sibayan, 2019). With this, there is a need to identify the JHS student's level of hearing impairment, level of reading comprehension, and level of reading comprehension according to the level of hearing impairment in the post pandemic classes.

In the context of this study, hearing impairment refers to a condition where an individual's ability to hear falls below the norm of 20 dB or better in both ears, compared to those with typical hearing. The degree of hearing loss can range from mild to profound, impacting one or both ears. Common contributors to hearing impairment encompass congenital or early childhood onset, persistent middle ear infections, damage from loud noises, age-related factors, and the use of ototoxic drugs that harm the inner ear (WHO, 2023) While reading comprehension as mentioned by Basaraba, et. al. (2012) is a complex process that requires different building-block skills. One model of reading comprehension proposes that understanding what we read is really the result of three levels of skills: literal comprehension, inferential comprehension and critical comprehension. Firstly, a reader who acquired the literal level must be able to determine what is actually stated which include facts, details, rote learning and information (Bernardo, 2009 as cited in De Guzman, et al., 2014). Secondly, Sao-an (2008) stated that a reader who acquired the inferential level must be able to assume and interpret correctly events as occur in the selection. Lastly, a reader who acquired the critical level must be able to acquire the skill that the very act of reading the reader constructs meaning by extending his prior knowledge base and arriving at new insights (Rudell, 2001 as cited in Resurreccion, 2010).

## **Problem Statement**

This study aimed to determine the level of reading comprehension and level hearing impairment of JHS students with hearing impairment in the post pandemic classes and the level of reading comprehension according to their hearing impairment.

## **Method**

Descriptive survey design was used to systematically analyse and measure the level of reading comprehension and hearing impairment of JHS students with hearing impairment.

## **Materials**

A 30-item reading comprehension test was adapted from the research entitled “Reading Comprehension of Senior High School Students with Hearing Impairment” by Sibayan (2019). Its reliability test result using Kuder-Richardson Formula showed a 0.72 value which means that the items in the questionnaire have relatively high consistency. It is composed of questions along the three levels of reading comprehension, specifically the literal, inferential, and critical level. This reading comprehension test was distributed through the use of printed format. The hearing impairment level was based on the school profile of the students.

## **Samples**

Universal sampling was employed. With this, a total of (24) JHS students with hearing impairment in the post pandemic classes from one SPED school for the S.Y. 2022-2023 were identified. Specifically (4) or 16.67% from Grade 7, (10) or 41.67% from Grade 8, (7) or 30.43% from Grade 9, and (3) or 12.5% from Grade 10.

## **Site**

The SPED Integrated School identified from the Schools Division Office - City of San Fernando is a SPED centre that caters JHS with hearing impairment in the post pandemic classes.

## **Procedures**

Before the data gathering collection, the researcher sought approval to administer the questionnaire, letters of permission to conduct the study and invitation to participate, and participant consent forms were given to the schools’ division superintendents, school heads, and teachers of the target institutions. These letters and forms contain details about the study that need to be known to the participants.

During the data gathering collection, there was a consent form distributed informing the participants that the study does not have known risks, costs, nor monetary compensation, and is voluntary. They were also informed that they were given anonymity and should the data published or disseminated; their individual information will not be disclosed. Furthermore, they were informed that the data gathered from the participants will solely be used for the purpose of the study.

After the data gathering collection, numerical data collected from the student profile and reading comprehension test were both statistically treated, analysed, and interpreted.

## Measurement

The researcher based the hearing impairment level of JHS students with hearing impairment in the post pandemic classes from the students' profile available in their school. Meanwhile, the frequency count for the level of reading comprehension was based on research entitled "Reading Strategies and Reading Comprehension Levels of the Sophomore BSED students Major in English". The level of reading comprehension of the participants ranges from poor (0-2), (0-6) to excellent (9,10) (25-30).

## Data Analysis

Weighted mean was used to identify the level of hearing impairment of JHS students with hearing impairment in the post pandemic classes as elicited from their student profile.

Table 1 presents the level of severity of hearing loss and resulting impairments.

**Table 1.** *Severity of Hearing Loss and Resulting Impairments*

<b>Statistical Range</b>	<b>Descriptor</b>	<b>Interpretation</b>
26-40 Db	Slight	Able to hear or repeat words spoken in normal voice at 1 meter.
41-60 Db	Moderate	Able to hear or repeat words spoken in a raised voice at 1 meter.
61-80 Db	Severe	Able to hear some words when shouted into a better ear.
81 Db- above	Profound	Unable to hear and understand even with a shouted voice.

Weighted mean was used to identify the level of reading comprehension of JHS students with hearing impairment along literal, inferential, and critical level. Table 2 presents the numerical and qualitative value that was used to categorize and interpret the level of reading comprehension of JHS students with hearing impairment along literal, inferential, and critical level.

**Table 2.** *Level of Reading Comprehension*

<b>Statistical Range</b>	<b>Descriptor</b>	<b>Interpretation</b>
9-10	Excellent	The level of reading comprehension of JHS student with hearing impairment is very high.
7-8	Above Average	The level of reading comprehension of JHS student with hearing impairment is high.
5-6	Average	The level of reading comprehension of JHS student with hearing impairment is moderate.
3-4	Fair	The level of reading comprehension of JHS student with hearing impairment is low.
0-2	Poor	The level of reading comprehension of JHS student with hearing impairment is very low.

**Table 3. Overall Level of Reading Comprehension**

<b>Statistical Range</b>	<b>Descriptor</b>	<b>Interpretation</b>
25-30	Excellent	The overall level of reading comprehension of JHS student with hearing impairment is very high.
19-24	Above Average	The overall level of reading comprehension of JHS student with hearing impairment is high.
13-18	Average	The overall of reading comprehension of JHS student with hearing impairment is moderate.
7-12	Fair	The overall of reading comprehension of JHS student with hearing impairment is low.
0-6	Poor	The overall of reading comprehension of JHS student with hearing impairment is very low.

Weighted mean was used to identify the overall level of reading comprehension of JHS students with hearing impairment. Table 3 presents the numerical and qualitative value that was used to categorize and interpret the overall level of reading comprehension JHS students with hearing impairment.

### **Validity and Reliability**

The hearing impairment level was elicited from the student's profile present in school. While the reliability of the reading comprehension test adapted for the study has a KR20 reliability coefficient that is considered as highly consistent. After the data gathering collection, the process of triangulation was also utilized to further analyze and verify the findings of the study.

### **Results and Discussion**

This portion of the study presents analysis, interpretation, and discussion of the data collected on the overall level of hearing impairment, level of reading comprehension, and overall reading comprehension according to the level of hearing impairment.

Table 4 presents the overall level of hearing impairment of JHS students with hearing impairment in the post pandemic classes.

Generally, the level of hearing impairment of 19 or 79.2% JHS students with hearing impairment in the post pandemic classes have profound (61-80 Db) level of hearing impairment while only five (5) or 20.8% have moderate (41-60 Db) level of hearing impairment.

**Table 4. Overall level of hearing impairment**

<b>Statistical Range</b>	<b>Descriptor</b>	<b>Frequency</b>	<b>%</b>
41-60 Db	Moderate	5	20.8%
61-80 Db	Profound	19	79.2%
<b>Total</b>		24	100%

This implies that the majority of JHS students with hearing impairment in the post pandemic classes are unable to hear and understand even with a shouted voice. This indicates that with a profound level of hearing impairment they use sign language to communicate.

Similarly, the World Health Organization (2023) shares that Deaf people mostly have profound hearing loss, which implies very little or no hearing. They often use sign language for communication.

Table 5 presents the overall level of reading comprehension of JHS students with hearing impairment in the post pandemic classes.

**Table 5. Overall level of reading comprehension**

<b>Items</b>	<b>Mean Score</b>	<b>Equivalent</b>
Literal Level	4	Fair
Inferential Level	3	Fair
Critical Level	2	Poor
<b>Overall Mean Score</b>	<b>9</b>	<b>FAIR</b>

Generally, the level of reading comprehension of JHS students with hearing impairment in the post pandemic classes along literal, inferential, and critical level is fair. Table 5 as gleaned above shows the literal level (4) fair garnering the highest of the overall mean score (See Appendix A).

This suggests that a negative impact of the pandemic is existing in the post-pandemic classes. The result shows that the respondents mostly recognize simply, directly, and explicitly talked about information in the textual message. This hints that it will take lots of effort for the JHS students to recover with their reading comprehension during their post pandemic classes.

These results support the research of Bachik and Aladdin (2022) when they found that the impact of online learning amid the Covid-19 pandemic has been detrimental to students with hearing impairment. It has resulted in a substantial decrease in their performance on reading tasks, a decline in the application of prior knowledge, and a reduction in the average achievement level when completing reading comprehension assignments. Meanwhile, Kunzre et. al. (2022) suggested that students may be bouncing back from the negative impacts, but for some groups, the impacts may be continuing or even deepening. This negates the findings that effects of the pandemic are neither clear nor simple for deaf students (Kuhfeld, et. al. 2021).

Table 6 presents the overall level of reading comprehension of JHS students with moderate hearing impairment in the post pandemic classes.

**Table 6. Moderate hearing impairment level**

<b>Respondent</b>	<b>Score</b>	<b>Equivalent</b>
Respondent A	15	Average
Respondent B	14	Average
Respondent C	17	Average
Respondent D	11	Fair
Respondent E	13	Average
<b>Mean Score</b>	<b>14</b>	<b>AVERAGE</b>

The results reveal that the overall level of reading comprehension among JHS learners with moderate hearing impairment in the post pandemic classes is average. The results reveal that the majority of the JHS students with moderate hearing impairment in the post pandemic classes were able to answer half of the items correctly. Four (4) out of five (5) respondents got an average score or moderate level of reading comprehension and only one (1) got a fair score or low level of reading comprehension.

This suggests that the JHS students with moderate hearing impairment in the post pandemic classes exhibit different levels of resilience in coping and adjusting from the pandemic classes to the post pandemic classes in connection to their reading comprehension. This implies that despite having the same level of hearing impairment reading comprehension test results still vary.

The results affirm the interview among deaf students wherein they described their experience of using online technology in both negative and positive terms Alshawabkeh, et. al. (2021). This backs the findings of Aljedaani, et. al. (2022) where they revealed that various recent studies have shown the underlying infrastructure used by academic institutions may not be suitable for students with hearing impairments. The results support similar research concluding that the hearing impairment level does not necessarily affect the level of reading comprehension (Sibayan, 2019). The result negates the idea of Friend and Bursuck (2006) stating that students with hearing losses have the same range of intellectual disability as other students.

Table 7 presents the overall level of reading comprehension of JHS students with profound hearing impairment in the post pandemic classes.

**Table 7. Profound hearing impairment level**

<b>Respondent</b>	<b>Score</b>	<b>Equivalent</b>
Respondent F	10	Fair
Respondent G	14	Average
Respondent H	8	Fair
Respondent I	6	Poor
Respondent J	7	Fair
Respondent K	9	Fair
Respondent L	3	Poor
Respondent M	7	Fair
Respondent N	7	Fair
Respondent O	8	Fair
Respondent P	10	Fair
Respondent Q	2	Poor
Respondent R	6	Poor
Respondent S	8	Fair
Respondent T	9	Fair
Respondent U	9	Fair
Respondent V	5	Fair
Respondent W	9	Fair
Respondent X	10	Fair
<b>Mean Score</b>	<b>7.74</b>	<b>FAIR</b>

The results reveal that the overall level of reading comprehension among JHS learners with profound hearing impairment in the post pandemic classes is fair. This reveals that the majority of the JHS students with profound hearing impairment in the post pandemic classes were able to answer only 25% of the items correctly. One (1) out of 19 respondents got an average score or moderate level of reading comprehension. While 15 respondents got a fair or low level of reading comprehension and four (4) got a poor score or very low level of reading comprehension.

This suggests that most of the JHS students with profound level hearing impairment in the post pandemic classes are having difficulty in coping and adjusting from the pandemic classes to the post pandemic classes in connection to their reading comprehension. Also, this hints that the level of hearing impairment does not necessarily affect the level of reading comprehension level.

These results support the findings that COVID-19 pandemic has had adverse effects on students with hearing impairments, particularly in terms of the negative impact of online learning. It has led to a significant drop in their performance in reading tasks, a decrease in the application of previously acquired knowledge, and a decline in overall achievement levels when undertaking reading comprehension assignments Bachik and Aladdin (2022). The results support similar research showing that the degree of hearing impairment does not necessarily influence the proficiency in reading comprehension (Sibayan, 2019).

## **Conclusion**

This portion of the study presents the conclusion drawn and recommendations proposed by the researcher. Looking through the level of hearing impairment and level of reading comprehension of the Junior High School students with hearing impairment in the post pandemic classes showed that it can be the basis for further research. In light of the findings of the study, the following conclusions are drawn: The hearing impairment level of the Junior High School students does not dictate the result of the level of reading comprehension in the post pandemic classes.

After a careful review of the conclusion, the following are recommended. SPED teachers in the post pandemic classes are recommended to Sign Exact English (SEE) to develop the JHS with hearing impairments level of reading comprehension. Also, emphasize the use of different post pandemic reading strategies to develop and improve the reading comprehension of the JHS students with hearing impairment. The JHS students with hearing impairment are recommended to promote a solid working open communication and collaboration with their peers and parents to improve their reading comprehension level. In addition, future researchers are recommended to look into other variables aside from the post pandemic classes and hearing impairment that might affect the level of reading comprehension.

Certainly, being able to reveal the overall level of reading comprehension and level of hearing impairment of JHS students with hearing impairment are both vital in the 21st century learning as a reflection of our special education system's adaptability in the changing environment.



## **Acknowledgements**

The researcher is very grateful to the God who made everything possible. The researcher would like to extend her gratitude to the JHS students with hearing impairment that were identified for the study. The researcher would also like to thank IAFOR for this opportunity. Lastly, the researcher would like to express her appreciation to her family members, friends, boyfriend, Snow, and JD1E SOL fam who provided so much support, concern, and prayers. *Mabuhay! Aloha! Let's go future panyera.*

## Appendix A

### HEARING IMPAIRMENT AND READING COMPREHENSION LEVEL

Respondent	Level of Hearing Impairment	Literal Level Score	Inferential Level Score	Critical Level Score	Over-all Score
A	Moderate	7	5	3	15
B	Moderate	9	2	3	14
C	Moderate	6	7	4	17
D	Moderate	5	3	3	11
E	Moderate	5	4	4	13
F	Profound	6	1	3	10
G	Profound	6	2	4	14
H	Profound	5	3	0	8
I	Profound	3	1	2	6
J	Profound	2	2	3	7
K	Profound	5	3	1	9
L	Profound	0	1	2	3
M	Profound	1	4	2	7
N	Profound	4	2	1	7
O	Profound	2	3	3	8
P	Profound	3	3	4	10
Q	Profound	1	0	1	2
R	Profound	3	2	1	6
S	Profound	4	2	2	8
T	Profound	6	1	2	9
U	Profound	3	4	2	9
V	Profound	2	1	2	5
W	Profound	2	3	4	9
X	Profound	6	4	0	10
Over-all	Profound	4	3	2	9

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