

# MANAGING THE VOICE LEVELS OF GRADE 12 CLASSES THROUGH EVV CONDITIONING DEVICE Vizcarra, Emilia V. Completed 2019



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#### Abstract

One of the biggest challenges that teachers face nowadays is noise management, therefore, educators use several approaches to find ways to resolve it. Correspondingly, this study focused on the utilization of the Emilia V. Vizcarra (EVV) conditioning device in managing voice levels in Grade 12 classes of Castor Z. Concepcion Memorial National High School, Balaoan, La Union, School Year 2018-2019. In particular, the researcher assembled a voice level conditioning device with green, yellow and red lights as well as images and numbers (0,1,2). A controller managed the selection of desired voice levels, in which green is for reporting voice; yellow for conversation voice; and red for complete silence. The study utilized the quasi-experimental two-group research design and the researcher used mean and T-test to analyze data. The researcher used toss coin to identify the control and experimental groups. There were 41 student-participants in the control group and 33 student-participants in the experimental group. The EVV conditioning device served as an effective tool in managing voice levels in the experimental group compared with the control group, hence, recommended for use in schools to reduce noise.

Keywords: Classroom Management, Intervention, Noise Management, Teaching and Learning, Voice Levels, Warning Device

#### ACKNOWLEDGEMENT

First and foremost, I would like to thank the Almighty Father for providing me with the strength and knowledge necessary to conduct this action research.

I would like to thank as well the Schools Division Research Committee (SDRC), Division of La Union and Regional Research Committee of Region I for considering this research study part of the pool of action researches that were funded by the Basic Education Research Fund (BERF), school year 2018-2019.

I also would like to express my sincere gratitude to the members of the panel during the proposal defense for their constructive advice that lead to the improvement of this study.

Lastly, I am immensely grateful to the Castor Z. Concepcion Memorial National High School (CZCMNHS) family for the inspiration, support and assistance.

## TABLE OF CONTENTS

| Title   | Page |
|---|------|
| Title Page  | i    |
| Abstract  | ii   |
| Acknowledgement                                       | iii  |
| Table of Contents                                     | iv   |
| List of Tables  | v    |
| List of Figures                                       | vi   |
| Context and Rationale                                 | 1    |
| Innovation, Intervention, and Strategy                | 3    |
| Action Reserch Questions                              | 4    |
| Action Research Methods                               | 5    |
| Participants and/or other Sources of Data Information | 5    |
| Discussion of Results                                 | 6    |
| Reflection  | 19   |
| Conclusion and Generalization                         | 19   |
| Action Plan   | 20   |
| References  | 21   |
| Financial Report                                      | 24   |
| Appendices  | 28   |
| Plates  | 28   |

# LIST OF TABLES

| Table | Title  | Page |
|-------|--|------|
| 1     | Recorded Voice Level Readings at Voice Level 0 or Complete Silence of the Control Group and Experimental Group     | 7    |
| 2     | Mean(dB) at Voice Level 0 or Complete Silence of Each Trial for the Control Group and Experimental Group           | 10   |
| 3     | Test Difference Between the Mean at Voice Level 0 or Complete Silence of the Control and Experimental Group        | 11   |
| 4     | Recorded Voice Level Readings at Voice Level I 1 or conversation voice of the control group and experimental group | 11   |
| 5     | Mean(dB) at Voice Level 1 or Conversation Voice of Each Trial for the Control Group and Experimental Group         | 13   |
| 6     | Test Difference Between the Mean Voice Level 1 or Conversation Voice of the Control and Experimental Group         | 14   |
| 7     | Voice Level Readings at Voice Level 2 or Reporting Voice of the Control Group and Experimental Group               | 15   |
| 8     | Mean(dB) at Voice Level 2 or Reporting Voice<br>of Each Trial for the Control Group and Experimental Group         | 17   |
| 9     | Test Difference Between the Mean Voice<br>Level 2 or Reporting Voice of the Control and Experimental Group. 17     |      |

# LIST OF FIGURES

| Figure | Title   | Page |
|--------|---|------|
| 1      | Voice Level for Voice Level 0 or Complete Silence of the Control Group and Experimental Group   | 10   |
| 2      | Voice Level for Voice Level 1 or Conversation Voice of the Control Group and Experimental Group | 14   |
| 3      | Voice Level for Voice Level 2 or Reporting Voice of the Control Group and Experimental Group    | 17   |

#### **Context and Rationale**

One of the major concerns for teachers, administrators, and the public is managing students' behavior in classrooms as this plays a major role in improving academic performance among learners (Evertson & Weinstein, 2013). The academic performance-related roles of school and classroom factors highlight the importance of classroom management strategies and positive learning environments (Back & McMahon, 2016).

The relationship between classroom management and student behavior is cyclical and so, teachers need to address disruptions in middle-to-secondary classrooms with students with emotional and other behavioral problems as this can have a negative impact on learning and the acquisition of academic skills. Teachers, then, should utilize interventions that will influence a positive change in the behavior of students. (Scott, 2017).

The teacher being the key player in the classroom has to be responsive to whatever behavioral displays and demands students make in the classroom. As expected, the teacher's most powerful weapon in her battle to disruptive behaviors is effective classroom management.

Accordingly, Thangarajathi & Enok (2010) stressed that the teacher's ability to manage the behavior of students and maintain an organized classroom is vital in attaining positive educational results. Additionally, sound classroom management allows a suitable environment for good instruction, can reduce behavior problems; however, it does not completely eradicate behavior problems. Consequently, teachers who fail to manage their students' behavior are usually ineffective in the classroom, highly stressed and manifest signs of burnout (Akbari & Eghtesadi, 2017).

Families with socioeconomically disadvantaged and ethnic minority backgrounds are often difficult to reach for the prevention and treatment of disruptive child behavior problems (Leijten, et al., 2017). Therefore, the author encourages teachers to find solutions to the concerns of these economically deprived students to improve their academic performance.

On the other hand, despite misbehavior, some instructors fail to confront these students and believe that ignoring this misbehavior might be better than making a scene. Conversely, while reducing disruptive behavior is desirable, teachers' necessary information and skills are often inaccessible or unavailable (Maag, 2016). Moreover, giving attention to misbehavior may highlight the inefficiency in their teaching and directing the blame on them while others fail to deal with it because they fall short of possible approaches to confront them. Thus, teachers should not tolerate such practices as these can heighten undesirable behaviors among students.

One of the most annoying experiences inside the classroom is when students raise their voice levels resulting in noise. Remarkably, many teachers consider voice levels as one of the biggest disruptive behaviors they need to address. This behavioral problem requires immediate action because it affects not only the learners, but also the teachers and the school community as a whole. It is notable that recent studies have highlighted the consequences of noise on children's learning and performance at school (Minichilli, et al., 2018). Therefore, noise management is one among the areas of concern in classroom management. It is speculated that noise has various adverse effects on the functioning of humans, including speech production and perception, a noiseless environment, and good acoustics are important in classrooms (Sala & Rantala, 2016).

Obviously, punishment cannot manage classroom exclusively anymore. The teachers have to employ new approaches to classroom behavior management. A major predicament a teacher has to face is that no one management style works for all set of students. One has to think of strategies that work for different groups of learners. As such, the conduct of learning action cell as a K to 12 Basic Education program school-based continuing professional development strategy for the improvement of teaching and learning is necessary (DO 35, s. 2016). Today, some teachers will resort to various classroom management interventions and

approaches to tone down the students who create unnecessary noise such as decibel levelbased group contingencies (Radley, 2016).

Castor Z. Concepcion Memorial National High School has around 2,000 students for the academic year 2018-2019 with a class size of 50 on the average. True to form, populated classroom can be a reason for noisy classes (Meador, 2018). Consequently, the more students there are in a classroom, the more challenging it is for teachers to manage their classes (Marais, 2016). Based on the interview, almost all teachers in all grade levels complain of noise and the researcher experiences the same problem in her classes as well.

With the 6 hours-teaching load in a day for a teacher, spending so much effort to lessen or minimize noise is an added burden. The energy spent in silencing a noisy class is a precious lost on the part of the teacher. Further, interventions to manage noise in the classroom are necessary for effective teaching and learning scenario to take place. Likewise, when educators apply appropriate classroom management approaches, they could enhance students' academic performance. Apparently, it is for this reason that the researcher proposed the use of EVV conditioning device to manage noise in the classroom. The goal of the research is to find answers to the questions while exploring solutions to manage disruptive voice levels using EVV conditioning device. Thus, the research aimed to explore the effectiveness of the EVV conditioning device in managing voice levels in the grade 12 classes.

#### Innovation, Intervention and Strategy

The research focused on using EVV conditioning device to manage voice levels in the classroom. The assembled customized EVV conditioning device has colored bulbs, numbers and images as warning signs. The red bulb with a picture of a zipped mouth and a number 0 signifies complete silence; while the orange bulb with an image of 4 people in a brainstorming session and a number 1 is for conversation voice level. Moreover, the green bulb with an icon of a person delivering a report and a number 2 is for the reporting voice level. Initially, the

researcher oriented the experimental group about the EVV conditioning device. Voice level 0 is complete silence; Voice level 2 is conversation voice; and Voice level 3 is the reporting voice. Also, the researcher demonstrated the voice level for conversation voice and reporting voice. Additionally, the researcher oriented the use of the EVV conditioning device in voice level management. Furthermore, a hand controller served as the switch to the preferred light that conveyed the desired voice level.

Five physics teachers of the school inspected the EVV conditioning device to ensure the quality of the intervention device. After which, the researcher installed the device in front of the classroom to ensure its visibility.

#### **Action Research Questions**

The research aimed to explore the effectiveness of EVV conditioning device in managing voice levels in the senior high school grade 12 classes.

Specifically, the following questions were investigated:

1. What is the level of voice recorded from the sound meter in the

control group and experimental group at

- 1.1 voice level 0 or complete silence?
- 1.2 voice level 1 or conversation voice level?
- 1.3 voice level 2 or reporting voice level?
- 2. Is there a significant difference in the voice level recorded

between the control and experimental group at

2.1 voice level 0 or complete silence?

2.2 voice level 1 or conversation voice level?

2.3 voice level 2 or reporting voice level?

#### **Action Research Methods**

#### a. Participants and/or other Sources of Data and Information

The participants were the two (2) classes of the academic track, Accounting and Business Management (ABM) with 41 students and Science Technology Engineering and Mathematics (STEM) with 33 students of Castor Z. Concepcion Memorial National High School, SY 2018-2019. Both classes belong to the academic track and have comparable class voise levels that needed extra effort for teachers to handle. Similarly, the researcher taught research subject in both the ABM and the STEM classes during the experimental period. Moreover, the researcher applied the tossing of the coin to determine the control group and the experimental group.

#### **b. Data Gathering Methods**

The study used the quasi-experimental two-group research design. The design incorporates selecting groups to test the variable in which the control of all the key factors is not possible or practical (Learning Research Connections, 2019). Apparently, the researcher considered this design inasmuch as the participants in the two classes stayed as one group (unequal number of students) incapable of disintegration. Nevertheless, the experimental group and the control group have similarities as both classes belong to the academic strand of the senior high school. In the same manner, both groups displayed almost the same level of noise as perceived by the teachers interviewed before the usage of the device.

A sound meter with two measuring means and a precision level of 1.5dB, a level range of 30-130dB, the frequency range of 31.5Hz-8KHz, and a display up data of 0.5 second seized

the noise levels (dB) of the experimental group and the control group. The researcher recorded the camera-captured voice level readings in decibel at an average of 10 minutes (at 5-second intervals) for complete silence and conversation voice. There were 120 voice level readings for each group, while for reporting voice there were 60 voice level readings recorded at an average of 5 minutes (at 5-second intervals). In the same manner, the teacher-research consolidated data for each trial within one class period for both groups that lasted for 12 weeks. Consequently, the researcher recorded five trials for each of the voice levels (complete silence, conversation voice, and reporting voice) for both the control and the experimental group. Subsequently, the researcher interpreted the data gathered from the sound meter.

The researcher treated the gathered data with mean and T-test as statistical tools. Ttest further examined the computed means for five trials for each voice level (0,1,2) for both experimental and control groups to determine if there is a significant difference between the groups. Ordinarilly, different levels measured in decibels (dB) were the bases in the categorization of voice levels observed in the buildings where the groups stayed.

| 64.00 dB-below    | - | almost complete silence |
|-------------------|---|-------------------------|
| 64.01 dB-70.00 dB | - | conversation voice      |
| 70.01 dB-75.00 dB | - | reporting voice         |

#### **Discussion of Results**

Table 1 presents the voice level readings that were recorded for 10 minutes for voice level 0 or complete silence in the experimental and control group. The table shows that there are 120 voice level readings for each trial of the five trials for both the control group and the experimental group. The mean for each trial for both the control and the experimental group are also shown.

Table 1. Recorded Voice Level Readings at Voice Level 0 or Complete Silence of the Control Group and Experimental Group

|        | Contr        | ol    |       |         |       |  | Experimental |       |         |       |              |       |
|--------|--------------|-------|-------|---------|-------|--|--------------|-------|---------|-------|--------------|-------|
| Voice  |              |       |       |         |       |  | Voice        |       |         |       |              |       |
| Level  | Trial        | Trial | Trial |         | Trial |  | Level        | Trial |         | Trial | Trial        | Trial |
| Readin | 1            | 2     | 3     | Trial 4 | 5     |  | Readi        | 1     | Trial 2 | 3     | 4            | 5     |
| gs     | (dB)         | (dB)  | (dB)  | (dB)    | (dB)  |  | ngs          | (dB)  | (dB)    | (dB)  | (dB)         | (dB)  |
| 1      | 56.7         | 62.1  | 45.2  | 59.8    | 64.2  |  | 1            | 64.9  | 73.6    | 75.5  | 66.6         | 67.5  |
| 2      | 59.8         | 62.5  | 58.7  | 61.1    | 62.6  |  | 2            | 64    | 74.4    | 68.8  | 65.7         | 63.7  |
| 3      | 59           | 63.5  | 59.1  | 62.6    | 60.9  |  | 3            | 67.4  | 68.7    | 70.7  | 67.2         | 62.9  |
| 4      | 63.2         | 63.3  | 58.7  | 60.7    | 59.1  |  | 4            | 67.6  | 78.2    | 70.9  | 66.6         | 60.9  |
| 5      | 61.6         | 64.3  | 58.1  | 62.4    | 59.1  |  | 5            | 64.8  | 77.4    | 72    | 66.9         | 60.1  |
| 6      | 56.9         | 66.5  | 56.9  | 60.5    | 61.2  |  | 6            | 65.3  | 70.6    | 68.5  | 64.8         | 65.1  |
| 7      | 56.5         | 61.3  | 55.1  | 61.4    | 65.4  |  | 7            | 65    | 68.4    | 71.3  | 63.6         | 62.7  |
| 8      | 59.7         | 68.6  | 60.7  | 60.9    | 64.9  |  | 8            | 66.6  | 71.7    | 69.5  | 64.4         | 65.7  |
| 9      | 59.4         | 65.7  | 56.6  | 62.8    | 60    |  | 9            | 64.8  | 68      | 69.5  | 64           | 63.3  |
| 10     | 56.6         | 63.3  | 55.5  | 61.5    | 60.6  |  | 10           | 64.9  | 68.9    | 72    | 71.9         | 63.1  |
| 11     | 62.8         | 62.9  | 58    | 62.3    | 64.2  |  | 11           | 67.8  | 76.7    | 68.9  | 68.3         | 60.4  |
| 12     | 56.5         | 65.7  | 55.8  | 59.7    | 62.5  |  | 12           | 62    | 68.8    | 68.7  | 68.7         | 62.1  |
| 13     | 58.1         | 61.8  | 57.6  | 60.9    | 60.7  |  | 13           | 64.5  | 76.2    | 66.7  | 65.7         | 61.5  |
| 14     | 59.4         | 65.6  | 55.2  | 63.6    | 59.1  |  | 14           | 67.7  | 77.7    | 66.1  | 70.1         | 62.3  |
| 15     | 57.4         | 66.7  | 57.3  | 60.6    | 59.7  |  | 15           | 67.4  | 67.6    | 64.6  | 69.6         | 59.1  |
| 16     | 58.7         | 64.7  | 57.7  | 62      | 59.4  |  | 16           | 67.7  | 69.5    | 66.7  | 68           | 65    |
| 17     | 57.5         | 60.6  | 58.1  | 63.1    | 59.2  |  | 17           | 69.5  | 65.7    | 62.6  | 65.8         | 60    |
| 18     | 57.7         | 65.3  | 58    | 60.4    | 61.3  |  | 18           | 67.6  | 70.3    | 66.4  | 68           | 66    |
| 19     | 60.2         | 60.2  | 56.8  | 65.9    | 58.9  |  | 19           | 62.3  | 66.1    | 63.2  | 64.8         | 60.3  |
| 20     | 59           | 62.5  | 60    | 68.9    | 61.4  |  | 20           | 67.8  | 68.1    | 64    | 69.2         | 59.4  |
| 21     | 58.8         | 58.9  | 59.9  | 63.8    | 62.6  |  | 21           | 64.1  | 75.6    | 69.3  | 64.9         | 60.4  |
| 22     | 55.9         | 62.5  | 62.6  | 60.7    | 61.5  |  | 22           | 67.4  | 69.6    | 64.2  | 67.8         | 63    |
| 23     | 56.8         | 61.1  | 54.5  | 65.9    | 59.5  |  | 23           | 65    | 74.8    | 64.4  | 66.6         | 60    |
| 24     | 57.7         | 63.8  | 63    | 60.9    | 60.3  |  | 24           | 61.1  | 68.3    | 60.5  | 68.8         | 64.6  |
| 25     | 61           | 65.5  | 60.5  | 63.8    | 59.8  |  | 25           | 67.5  | 67.4    | 64.9  | 69           | 64.9  |
| 26     | 59.5         | 61.9  | 58.1  | 65.2    | 55.7  |  | 26           | 63.9  | 65.6    | 63.3  | 67.2         | 61.5  |
| 27     | 56.5         | 61.6  | 56.9  | 62.1    | 61.5  |  | 27           | 64.5  | 67.8    | 64.3  | 69.6         | 62.9  |
| 28     | 61.3         | 62    | 57.2  | 62.5    | 60.3  |  | 28           | 69.6  | 69.1    | 61    | 65.6         | 63.8  |
| 29     | 58.6         | 59.9  | 60    | 61.5    | 63.3  |  | 29           | 69    | 66.2    | 62.5  | 67.8         | 59    |
| 30     | 57.4         | 61.5  | 57.9  | 61.6    | 60    |  | 30           | 67    | 66.6    | 63.4  | 69.2         | 60.9  |
| 31     | 57.8         | 58.1  | 66.3  | 66.6    | 58.9  |  | 31           | 65.2  | 65.7    | 62.7  | 77.4         | 64.2  |
| 32     | 59           | 60.7  | 57.2  | 63.7    | 61.7  |  | 32           | 61.9  | 64.9    | 63.5  | 70.8         | 59.8  |
| 33     | 61.5         | 60.5  | 59.2  | 54.2    | 61.1  |  | 33           | 69.7  | 69.6    | 60.7  | 66.9         | 61    |
| 34     | 60.1         | 57.2  | 57.2  | 62.2    | 62.4  |  | 34           | 67.8  | 65.7    | 63.2  | 65.2         | 67.1  |
| 35     | 59.8         | 60.5  | 55.5  | 62.3    | 62    |  | 35           | 70.5  | 69.8    | 62.9  | 69.6         | 63.4  |
| 36     | 61.8         | 62.5  | 56.3  | 63.8    | 60.2  |  | 36           | 67.4  | 69.9    | 62.8  | 65.8         | 61.4  |
| 37     | 60           | 59.9  | 61.3  | 63.1    | 61.5  |  | 37           | 64.2  | 64.4    | 61.5  | 65.4         | 62.1  |
| 38     | 59.3         | 62.5  | 57.5  | 65.1    | 59.5  |  | 38           | 68    | 69.2    | 63.5  | 70.7         | 66.5  |
| 39     | 60.9         | 59.5  | 57.3  | 62.1    | 63.8  |  | 39           | 55.2  | 00.7    | 64.1  | 71.9         | 61    |
| 40     | 56.4         | 61.2  | 56.2  | 63.8    | 62.1  |  | 40           | 67.2  | 00.1    | 66.3  | 70.3         | 66    |
| 41     | 59.1         | 66.3  | 57.1  | 64.1    | 62.3  |  | 41           | 65.6  | 65.1    | 63    | 70.2         | 63.5  |
| 42     | 59           | 58.7  | 54.3  | 65.1    | 60.4  |  | 4/           | 6/./  | 02.0    | 60.6  | 70.7         | 63.4  |
| 43     | 62.6         | 60.2  | 5/    | 04.0    | 59.5  |  | 43           | 67.5  | /1./    | 64.9  | 13.1         | 62.6  |
| 44     | 58.6         | 59.5  | 57.1  | 02.0    | 58.8  |  | 44           | 6/    | 04.4    |       | 68.3         | 62.3  |
| 40     | <b>59.</b> 6 | 00.1  | 57.3  | 00.1    | 01.4  |  | 40           | 00.0  | 00.0    | 63.5  | 00. <i>1</i> | 60.5  |

| 46                   | 61.4         | 59.9 | 55.3 | 64.1 | 62.7       | 46                   | 67.6 | 66.9 | 59.8 | 77.9         | 61.8         |
|----------------------|--------------|------|------|------|------------|----------------------|------|------|------|--------------|--------------|
| 47                   | 60           | 53.3 | 55.1 | 54.6 | 61.4       | 47                   | 68.5 | 66.6 | 60.7 | 67.8         | 64.6         |
| 48                   | 60.6         | 58.1 | 55.2 | 63.5 | 62.1       | 48                   | 64.4 | 66   | 61.6 | 65.1         | 63.6         |
| 49                   | 58.7         | 59.3 | 57.3 | 61.6 | 62.1       | 49                   | 67.5 | 64.6 | 61.9 | 71.3         | 62.6         |
| 50                   | 61.7         | 59.2 | 54.7 | 63.6 | 61.2       | 50                   | 67.9 | 67.7 | 64.5 | 68.8         | 63.1         |
| 51                   | 59.8         | 53.9 | 55.8 | 61.5 | 63         | 51                   | 64.1 | 67.2 | 65.2 | 65.9         | 66           |
| 52                   | 57.7         | 58.1 | 55.9 | 62.5 | 61.5       | 52                   | 67.9 | 66.6 | 60.7 | 68.7         | 64.9         |
| 53                   | 56.3         | 71.4 | 54.5 | 61.6 | 60.3       | 53                   | 67.4 | 66.9 | 63.9 | 68.2         | 65.3         |
| 54                   | 59.8         | 60.7 | 55.9 | 62.5 | 63.2       | 54                   | 65.4 | 64.8 | 60.2 | 66.9         | 64.6         |
| 55                   | 58.3         | 57.3 | 56.5 | 61.5 | 65         | 55                   | 65.8 | 63.6 | 64.5 | 70.8         | 66.6         |
| 56                   | 60.5         | 58   | 58.4 | 62.1 | 64         | 56                   | 66.5 | 64.4 | 60.9 | 68.4         | 64.6         |
| 57                   | 57.6         | 59.1 | 57   | 59.6 | 64.4       | 57                   | 65   | 64.2 | 62.2 | 65.1         | 63.5         |
| 58                   | 61.9         | 57.7 | 59.1 | 59.5 | 65.6       | 58                   | 63.2 | 71   | 61.5 | 68.7         | 64.8         |
| 59                   | 58.1         | 59.1 | 57.4 | 60.3 | 65.7       | 59                   | 65.2 | 68.7 | 62.3 | 67.1         | 67.7         |
| 60                   | 62.2         | 60   | 56.5 | 64.5 | 67.7       | 60                   | 63.9 | 68.7 | 62.8 | 67.1         | 72           |
| 61                   | 61.3         | 57.5 | 57   | 61.5 | 63.9       | 61                   | 63.1 | 70.2 | 63.1 | 67.4         | 69.2         |
| 62                   | 63.1         | 58.7 | 62.2 | 64.6 | 61.7       | 62                   | 66.8 | 73.1 | 63.6 | 70.7         | 64.1         |
| 63                   | 58.8         | 59.8 | 59.9 | 61.5 | 61         | 63                   | 64.6 | 69.6 | 61.5 | 68.7         | 70.1         |
| 64                   | 57           | 57.1 | 66.2 | 64.6 | 64.9       | 64                   | 64.6 | 77.6 | 62.8 | 67.2         | 64.4         |
| 65                   | 59.5         | 56.9 | 58.2 | 63.3 | 68.1       | 65                   | 65   | 65.8 | 63.1 | 66.1         | 65.6         |
| 66                   | 59.2         | 59.8 | 57.3 | 62.6 | 65.6       | 66                   | 64.8 | 70.8 | 63   | 68.6         | 65.3         |
| 67                   | 58.5         | 57.7 | 56.4 | 64.3 | 61.6       | 67                   | 71.9 | 66.2 | 68.9 | 67.9         | 71           |
| 68                   | 58.6         | 58.1 | 59.1 | 62.2 | 62.9       | 68                   | 67.4 | 68.7 | 64.5 | 65.9         | 65.4         |
| 69                   | 60.6         | 57.6 | 55.1 | 63.5 | 63.2       | 69                   | 64.6 | 64.9 | 65.4 | 65.9         | 69           |
| 70                   | 69.7         | 58.5 | 57.3 | 63.3 | 61.6       | 70                   | 61.7 | 67   | 64   | 66.5         | 68.6         |
| 71                   | 59.6         | 59   | 58.7 | 63.6 | 62.1       | 71                   | 61.5 | 66.6 | 65.8 | 68.1         | 67.8         |
| 72                   | 60.5         | 58.1 | 58.2 | 64.4 | 60.7       | 72                   | 72   | 65.2 | 59.9 | 68.6         | 67.9         |
| 73                   | 62.2         | 57.4 | 57   | 61.5 | 61.1       | 73                   | 63.1 | 67   | 63.8 | 68           | 68.1         |
| 74                   | 61.4         | 61.7 | 58   | 63.1 | 62         | 74                   | 67.1 | 70.2 | 63.2 | 67.4         | 67.9         |
| 75                   | 65           | 58.7 | 57.6 | 62.9 | 61.2       | 75                   | 65.7 | 67.1 | 62.1 | 67.6         | /1.6         |
| 76                   | 66.2         | 61.5 | 57.6 | 60.9 | 59.9       | 76                   | 65.9 | 65.6 | 62.4 | 67.4         | 74.9         |
| 70                   | 63.1         | 60.5 | 57.8 | 62.1 | 61.6       | 70                   | 69.7 | 67   | 61.5 | 67.9         | 67           |
| 78                   | 63.Z         | 62.9 | 59.2 | 61.8 | 61.4       | 78                   | 65.6 | 67.1 | 63.7 | 71           | 69.2<br>70.7 |
| 79                   | 01.0         | 59.0 | 50.4 | 62.3 | 01.3       | 79                   | 64.6 | 00.0 | 01.0 | 73.1         | 70.7         |
| 00                   | 60.3         | 50.7 | 50.7 | 03.0 | 00.4<br>60 | 00                   | 67.7 | 70.0 | 00.0 | 10.1         | 00.7         |
| 01                   | 59.5         | 59.7 | 59.1 | 01.1 | 02<br>57.0 | 01                   | 64.7 | 00.Z | 04.Z | 00.7<br>71 E | 01.1         |
| 02                   | 09.0<br>60.7 | 60.2 | 56.0 | 60.0 | 57.2       | <br>02               | 67.4 | 67.6 | 62.0 | 71.0         | 60.2         |
| 0J<br>94             | 50.6         | 61.2 | 50.9 | 60   | 57.4       | 0J<br>94             | 62.0 | 65.6 | 62.0 | 66.0         | 60.4         |
| 0 <del>4</del><br>85 | 62           | 64.2 | 56.4 | 61.5 | 56         | 0 <del>4</del><br>85 | 67.0 | 67.2 | 61 7 | 71.3         | 71.6         |
| 86                   | 63           | 61.4 | 56.3 | 62.3 | 57         | 86                   | 71.9 | 68.1 | 68.7 | 69.9         | 72.1         |
| 87                   | 68 7         | 61.4 | 57.1 | 59.1 | 62.2       | 87                   | 69.1 | 70   | 64.2 | 72.6         | 74 3         |
| 88                   | 68.3         | 65.1 | 55.5 | 65.3 | 69.5       | 88                   | 75.4 | 74 1 | 62.3 | 69.2         | 68.4         |
| 89                   | 64.2         | 62.4 | 55.9 | 61.2 | 55.5       | 89                   | 65.7 | 717  | 63.5 | 72.3         | 74 1         |
| 90                   | 66.6         | 60.1 | 57.7 | 67.2 | 59.3       | 90                   | 71 7 | 69.1 | 63.8 | 68.4         | 72.6         |
| 91                   | 59.9         | 57.2 | 56.9 | 59.2 | 57         | 91                   | 73.3 | 71.7 | 63.6 | 73.8         | 69.1         |
| 92                   | 62           | 62   | 60.9 | 62.4 | 56         | 92                   | 68.3 | 70.7 | 66.4 | 72.8         | 77.7         |
| 93                   | 65.3         | 61.2 | 57.5 | 63.9 | 56.4       | 93                   | 65.2 | 69   | 66.1 | 68.1         | 69           |
| 94                   | 63.6         | 60.3 | 61.7 | 63   | 59.5       | 94                   | 72.8 | 67.6 | 63.1 | 71           | 69.3         |
| 95                   | 62.6         | 62   | 56.8 | 60   | 56.5       | 95                   | 66.6 | 67   | 64   | 75           | 69.2         |
| 96                   | 65.1         | 61.1 | 55.2 | 59.5 | 57         | 96                   | 68.3 | 65.1 | 63.5 | 70.6         | 70.3         |
| 97                   | 66           | 66.7 | 59.6 | 63.7 | 55.5       | 97                   | 64.9 | 66.7 | 62.1 | 65.7         | 70.9         |
| 98                   | 64.6         | 60.2 | 58.7 | 56.7 | 59.5       | 98                   | 72.1 | 65.8 | 63.8 | 70.7         | 69.3         |
| 99                   | 65.3         | 59.9 | 56.7 | 60.3 | 57.9       | 99                   | 61.1 | 67.4 | 60.5 | 70.6         | 68.8         |

| 100   | 64.2   | 58.2   | 56.3   | 61.1   | 56.4   | 100   | 71.6   | 67.7   | 62.5   | 70.7   | 68.6   |
|-------|--------|--------|--------|--------|--------|-------|--------|--------|--------|--------|--------|
| 101   | 66.6   | 58.8   | 57.7   | 64.4   | 56.6   | 101   | 67     | 70.7   | 61.8   | 70.6   | 72.3   |
| 102   | 59.9   | 61.7   | 63.2   | 64.9   | 55.6   | 102   | 62.3   | 66     | 63.6   | 70.5   | 69.8   |
| 103   | 62     | 60.7   | 55.5   | 63.1   | 56.4   | 103   | 65.7   | 75.2   | 61.7   | 73.6   | 72.4   |
| 104   | 65.3   | 59.9   | 55.6   | 59.8   | 57.8   | 104   | 67.2   | 70.4   | 62.1   | 70.7   | 69.8   |
| 105   | 63.6   | 57.4   | 58.3   | 60.5   | 55.8   | 105   | 75.1   | 66.1   | 61.6   | 72.9   | 72.4   |
| 106   | 62.6   | 60.5   | 55.1   | 63.4   | 55.6   | 106   | 70     | 68.1   | 62.7   | 72.6   | 69.9   |
| 107   | 65.1   | 60.9   | 56     | 61.2   | 67.6   | 107   | 64.5   | 66.7   | 61.7   | 70.1   | 73.4   |
| 108   | 66     | 58.3   | 56.5   | 60.4   | 57.1   | 108   | 65.3   | 68.1   | 64.1   | 74.3   | 72.2   |
| 109   | 64.6   | 61.1   | 57.4   | 59.9   | 54.8   | 109   | 66.5   | 67     | 61.5   | 75.9   | 69.7   |
| 110   | 65.3   | 60     | 56.9   | 65.6   | 66.5   | 110   | 64.5   | 70     | 71.7   | 70.8   | 70.2   |
| 111   | 64.2   | 59     | 55.1   | 66.3   | 57.9   | 111   | 75     | 69.6   | 60.5   | 76.1   | 79.6   |
| 112   | 61.5   | 60.2   | 55.6   | 66.1   | 57.6   | 112   | 66.1   | 67.2   | 64.6   | 75.2   | 72.5   |
| 113   | 64     | 59.4   | 55.1   | 61.9   | 60.1   | 113   | 67.6   | 66.6   | 63.5   | 71.9   | 74.1   |
| 114   | 62.5   | 57.1   | 55.6   | 63.4   | 56.9   | 114   | 65.6   | 66.2   | 62.8   | 72.7   | 73.6   |
| 115   | 59.6   | 60.9   | 57.2   | 62.1   | 59.5   | 115   | 65.6   | 67.6   | 64.3   | 73.6   | 73.3   |
| 116   | 59.3   | 59.9   | 58.5   | 62.3   | 56.3   | 116   | 63.9   | 63.6   | 66.1   | 67.3   | 68.1   |
| 117   | 64.3   | 64     | 58.7   | 60.5   | 55.9   | 117   | 67.1   | 64.9   | 67.3   | 68.3   | 73.8   |
| 118   | 65.2   | 61.1   | 58.6   | 61     | 67.2   | 118   | 65.4   | 68.7   | 73.1   | 70.7   | 71.1   |
| 119   | 65.9   | 60     | 57.1   | 62.4   | 57     | 119   | 64.3   | 65.8   | 63.6   | 77.6   | 79.2   |
| 120   | 62.2   | 60.9   | 71.5   | 64.3   | 59.5   | 120   | 66     | 65.7   | 64.4   | 73.2   | 71.8   |
| TOTAL | 7320.2 | 7294.1 | 6915.4 | 7484.8 | 7280.8 | TOTAL | 7977.9 | 8203.3 | 7706.9 | 8316.0 | 8021.2 |
| MEAN  | 61.00  | 60.78  | 57.63  | 62.37  | 60.67  | MEAN  | 66.48  | 68.36  | 64.22  | 69.30  | 66.84  |

Table 2 posits the mean of voice level 0 or complete silence of each trial for the control group and the experimental group. As deduced in table 1, mean for the control group is 67.04 dB, which is higher than the general mean of 60.49 dB in the experimental group. Moreover, the Table discloses that in all trials, the experimental group consistently displayed a lower noise level.

Additionally, table 2 reflects that the experimental group has lower mean of voice level 0 compared with the control group. As revealed, the voice level of the experimental group conforms within the acceptable range of voice level 0 which is 65dB-below while the voice level of the control group exceeded the justifiable range.

Consequently, the presence and use of the EVV voice conditioning device in the classroom warned students to behave accordingly relative to their voice levels. The device dispensed a signal for the students to maintain complete silence when the red light switched on. Also, the immanent presence of the image with a zipped mouth and the number 0 most likely helped in the management of voice levels as well. Hence, the data imply that the use of the EVV

voice conditioning device was perceived effective in managing voice levels for complete silence or noise level 0 in the classroom.

The result substantiates a finding in New Zealand, where the safe, sound indicator flashes green, amber – then red to let pupils and teachers know when voice levels are intolerable (Using Traffic Lights in the Classroom, 2016) was successful in lowering noise in child centers. The result, likewise authenticates that visual tool is effective in the management of classroom noise (Silent Light Helps Teachers Control the Noise in their Classrooms, 2013).

Table 2. Mean at Voice Level 0 of the Control and Experimental Group After the

| 111        | plementation |            |            |            |            |          |
|------------|--------------|------------|------------|------------|------------|----------|
| Group      | Trial1(dB)   | Trial2(dB) | Trial3(dB) | Trial4(dB) | Trial5(dB) | Mean(dB) |
| Control    | 66.48        | 68.36      | 64.22      | 69.30      | 66.84      | 67.04    |
| Experiment | al 61.00     | 60.78      | 57.63      | 62.37      | 60.67      | 60.49    |

Figure 1 shows the graph comparing the voice level for noise level 0 or complete silence of the control and the experimental group. The figure shows that the experimental group posted lower voice level compared with the control group with 5 trials.



Figure 1. Mean at Voice Level 0 of the Control and Experimental Group After the Implementation

| Grou         | p After the Imp | lementation |         |  |
|--------------|-----------------|-------------|---------|--|
| Group        | Mean            | t-value     | p-value |  |
| Control      | 67.04           | 6.87        | 0.00004 |  |
| Experimental | 60.49           |             |         |  |

**Table 3.** Test Difference Between the Mean at Voice Level 0 of the Control and Experimental Group After the Implementation

Table 3 reveals the result of the t-test between the mean of voice level 0 or complete silence of the control group and the experimental group. As clearly presented, the t-value is 6.87 and the p-value is 0.00004 as reflected in Table 3. Therefore, since the p-value is lower than 0.05 level of significance, the result is obviously significant.

Table 4 presents the voice level readings that were recorded for voice level 1 or conversation voice in the experimental and control group. The table also shows that there are 120 voice level readings for each trial of the five trials for both the control group and the experimental group. The mean of the five trials for both the control and the experimental group was also included.

| Table 4. Recorded Voice Level Readi | ngs at Voice Level | 1 or Conversation | Voice of the C | Control |
|-------------------------------------|--------------------|-------------------|----------------|---------|
| Group and Experimental Group        |                    |                   |                |         |

| $\sim$ |      |  |
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Experimental

| Voice    |        | Trial |        | Trial |        | Voice    |        |        |        |        |        |
|----------|--------|-------|--------|-------|--------|----------|--------|--------|--------|--------|--------|
| Level    | Trial  | 2     | Trial  | 4     | Trial  | Level    | Trial  | Trial  | Trial  | Trial  | Trial  |
| Readings | 1 (dB) | (dB)  | 3 (dB) | (dB)  | 5 (dB) | Readings | 1 (dB) | 2 (dB) | 3 (dB) | 4 (dB) | 5 (dB) |
| 1        | 73.7   | 63.4  | 66.1   | 68.7  | 73.4   | 1        | 59.9   | 62.6   | 60.1   | 64.5   | 68.6   |
| 2        | 79     | 62.4  | 66.9   | 72.1  | 63.7   | 2        | 72.6   | 62.5   | 59.9   | 67.3   | 65.4   |
| 3        | 70.6   | 67.7  | 68.8   | 72.3  | 72.3   | 3        | 70.7   | 63.4   | 59.8   | 61     | 66.5   |
| 4        | 79.9   | 66.4  | 67.3   | 67.3  | 68.3   | 4        | 71.9   | 65.9   | 58.1   | 64.2   | 77.1   |
| 5        | 82.3   | 62.9  | 69.3   | 74    | 69.1   | 5        | 67.4   | 61.9   | 59.3   | 64.7   | 70.4   |
| 6        | 73.2   | 66    | 68.2   | 77.3  | 69.3   | 6        | 74.9   | 62.6   | 60.6   | 67.4   | 68.4   |
| 7        | 72.3   | 68.3  | 65.4   | 73.1  | 68.7   | 7        | 71.7   | 65.1   | 65.1   | 63.5   | 66.9   |
| 8        | 79     | 66.1  | 75.2   | 69.5  | 70.4   | 8        | 61.1   | 63.7   | 58.9   | 64.7   | 65.2   |
| 9        | 73.7   | 67.5  | 71.1   | 73.6  | 74.5   | 9        | 68.3   | 59.1   | 65.7   | 64.5   | 69.1   |
| 10       | 74.4   | 64.9  | 68.9   | 74.5  | 69.2   | 10       | 64     | 60.2   | 69     | 65.2   | 65.6   |
| 11       | 79.3   | 64.6  | 69.6   | 72.5  | 67.4   | 11       | 64.5   | 64.2   | 64     | 63.2   | 65.7   |
| 12       | 72.8   | 64    | 69.5   | 68.1  | 75.4   | 12       | 71.6   | 64.1   | 62.3   | 61.7   | 70.5   |
| 13       | 80.1   | 66.1  | 68.7   | 69.5  | 71.7   | 13       | 70     | 66.4   | 62.4   | 61.8   | 72     |
| 14       | 77.2   | 65.8  | 69.5   | 69    | 79.9   | 14       | 66.2   | 60.6   | 59.6   | 60.2   | 65.2   |
| 15       | 74.1   | 64.7  | 69.5   | 69    | 76.4   | 15       | 63.5   | 60.5   | 62.2   | 66.6   | 67.7   |
| 16       | 78.6   | 66.2  | 70.5   | 62.1  | 74.3   | 16       | 63.8   | 60.4   | 65.2   | 63     | 67.8   |
| 17       | 79.5   | 68.1  | 66.3   | 66.5  | 71.4   | 17       | 68.4   | 66     | 63.3   | 60     | 63.5   |
| 18       | 71.5   | 67.6  | 65     | 71.8  | 69.1   | 18       | 66.7   | 65.1   | 65.8   | 60.6   | 65.2   |
| 19       | 75.6   | 68.3  | 66.4   | 70.6  | 78.4   | 19       | 65.7   | 61.7   | 65.6   | 64.6   | 67.9   |
| 20       | 78.5   | 64.3  | 70.5   | 65.1  | 75.1   | 20       | 63.5   | 62.7   | 63.6   | 65.7   | 65.8   |
| 21       | 74.2   | 70.6  | 66.9   | 69.1  | 81.5   | 21       | 66     | 61.4   | 61.7   | 66.2   | 68.3   |
| 22       | 74.4   | 71.3  | 69.4   | 70.9  | 74.9   | 22       | 62.5   | 65.6   | 61.1   | 63.8   | 67.7   |

| 23 | 81.8  | 63.4 | 73.1 | 74.4 | 79.1 | 23       | 63.7 | 64.5 | 61.1 | 63.7       | 68.1 |
|----|-------|------|------|------|------|----------|------|------|------|------------|------|
| 24 | 72.4  | 67.7 | 65.6 | 74   | 69.7 | 24       | 66.5 | 62.2 | 61.2 | 72.1       | 63.5 |
| 25 | 74.9  | 69.4 | 67.4 | 70.4 | 71.3 | 25       | 59.4 | 66.2 | 60.7 | 64         | 71.5 |
| 26 | 71.6  | 67.2 | 69.4 | 66.8 | 74   | 26       | 62.1 | 64.5 | 66.4 | 60.2       | 73.5 |
| 27 | 77.1  | 67.2 | 67.7 | 75.7 | 71.2 | 27       | 66   | 67.7 | 57.6 | 72.0       | 68.9 |
| 28 | 67.9  | 63.6 | 69   | 72   | 73.3 | 28       | 68.9 | 62.6 | 59.6 | 59.2       | 64.4 |
| 20 | 77.1  | 65.2 | 60 F | 66.2 | 73.3 | 20       | 50.3 | 62.0 | 57.1 | 57         | 60.2 |
| 29 | 67.0  | 62.0 | 60.6 | 70.2 | 74.9 | 29       | 60.2 | 60.2 | 57.1 | 57<br>60 F | 60.2 |
| 30 | 67.9  | 63.8 | 69.6 | 72.3 | 67.9 | <br>30   | 60.3 | 60.Z | 59.1 | 60.5       | 69.3 |
| 31 | 78    | 64.5 | 72.1 | 73   | 67.2 | 31       | 66.5 | 59.7 | 58   | 63.1       | 68.7 |
| 32 | 78.3  | 65.6 | 67.8 | 75.2 | 77.7 | 32       | 69.8 | 62   | 61.6 | 63.7       | 71.6 |
| 33 | 82.6  | 65   | 68.8 | 74   | 68   | 33       | 67.6 | 67   | 61.2 | 62.9       | 69.3 |
| 34 | 71.4  | 67.4 | 67.4 | 68   | 77.3 | 34       | 71   | 63.7 | 62.6 | 65.5       | 67.6 |
| 35 | 76.9  | 63.2 | 74.9 | 69.9 | 77.7 | 35       | 65.3 | 60.3 | 60.6 | 64.9       | 68.6 |
| 36 | 76.4  | 66.6 | 70.8 | 66.9 | 74.3 | 36       | 71   | 61.2 | 60.2 | 61.2       | 65.9 |
| 37 | 67.6  | 63.3 | 73.5 | 71.6 | 75.3 | 37       | 68.3 | 57.7 | 64.3 | 60.7       | 67.4 |
| 38 | 78.9  | 65.6 | 67.2 | 68.3 | 77.3 | 38       | 66.5 | 60.5 | 59.7 | 63.6       | 63.1 |
| 39 | 73.2  | 67.2 | 70.7 | 69.2 | 69.5 | 39       | 65   | 62.6 | 61.6 | 64.6       | 68.1 |
| 40 | 74    | 66.0 | 68.4 | 70.5 | 70.5 | 40       | 68.5 | 64.2 | 61.3 | 61.5       | 71.2 |
| 40 | 796   | 64.7 | 67.5 | 76.2 | 79.5 | 40       | 61.0 | 64.5 | 50.0 | 66.6       | 71.2 |
| 41 | 72.0  | 04.7 | 07.0 | 70.3 | 70.4 | 41       | 01.9 | 04.0 | 09.9 | 00.0       | 71.1 |
| 42 | 75.4  | 70.3 | 04   | 69.4 | 74.9 | 42       | 00   | 67   | 63.5 | 64.4       | 70.5 |
| 43 | 77.1  | 67.3 | 67.6 | //   | 77.4 | 43       | 68.8 | 60.9 | 61.5 | 63.8       | 69.1 |
| 44 | /4./  | 69.8 | 67.8 | 69.6 | //.1 | 44       | 69   | 60.6 | 60.5 | 61.8       | 67.5 |
| 45 | 71.5  | 66.8 | 69.7 | 72.7 | 75.5 | 45       | 66.7 | 59.5 | 62.4 | 64.1       | 68.9 |
| 46 | 69    | 66.5 | 65.3 | 68.8 | 78.9 | 46       | 67.1 | 64.4 | 62.5 | 58.8       | 67.7 |
| 47 | 67.6  | 66.3 | 69.6 | 75.3 | 68.4 | 47       | 67.3 | 64.2 | 61.6 | 62.6       | 71.9 |
| 48 | 65    | 69.7 | 68   | 70.4 | 74.3 | 48       | 67.7 | 67.2 | 67.8 | 58.1       | 76.2 |
| 49 | 68.9  | 67.5 | 66.8 | 75.5 | 70.4 | 49       | 67   | 65   | 63.2 | 61.5       | 63.5 |
| 50 | 67.6  | 66.7 | 65.7 | 76.5 | 70   | 50       | 67.6 | 67.2 | 66.1 | 62         | 67.1 |
| 51 | 62    | 66.2 | 66.1 | 75.6 | 74.4 | 51       | 65.4 | 60   | 62.9 | 63.8       | 66.1 |
| 52 | 66.1  | 70.7 | 66.1 | 71.6 | 69.9 | 52       | 66.8 | 61.2 | 59.9 | 65         | 61.4 |
| 53 | 70.8  | 71.1 | 67.4 | 71.4 | 66.7 | 53       | 62.4 | 62.6 | 62   | 62.3       | 68.5 |
| 54 | 72.9  | 73.2 | 65.5 | 73.3 | 71 7 | 54       | 64.2 | 67   | 66.2 | 64.7       | 66.4 |
| 55 | 75    | 68.6 | 64.7 | 67   | 72.1 | 55       | 64.3 | 62   | 65.2 | 65.7       | 67.7 |
| 56 | 80.7  | 60.0 | 66.6 | 70.3 | 70.5 | 56       | 66.5 | 67.7 | 70.3 | 66.2       | 60   |
| 57 | 66 F  | 67.9 | 65.2 | 70.3 | 70.5 | 57       | 62.5 | 50   | 67.5 | 65.1       | 61.5 |
| 59 | 60    | 60.2 | 64.6 | 71.4 | 74.1 | 59       | 69.2 | 617  | 64.2 | 66.1       | 62.7 |
| 50 | 61.0  | 66.2 | 67.6 | 71.1 | 74.2 | 50       | 67.7 | 67.7 | 67.1 | 62.4       | 65.1 |
| 59 | 01.0  | 00.3 | 07.0 | 71.3 | 71.9 | 59       | 07.7 | 07.7 | 07.1 | 03.4       | 00.1 |
| 00 | 02.0  | 00.0 | 07.5 | 00.0 | 72.9 | 60       | 00   | 01.7 | 00.4 | 03         | 00.7 |
| 61 | 69.4  | 68.5 | 67.7 | 72.9 | 73.9 | 61       | 67.7 | 65.5 | 63.3 | 68.3       | 62.5 |
| 62 | 62.1  | 69.2 | 67.5 | 73.4 | 68.9 | 62       | 64.8 | 67.1 | 60.2 | 60.7       | 61.6 |
| 63 | 63.8  | 69.7 | 65.3 | 70.1 | 72.2 | 63       | 64.4 | 62.7 | 64.8 | 67.9       | 61.5 |
| 64 | 66.3  | 68.3 | 63.7 | 73.8 | 72.6 | 64       | 68.2 | 59   | 68.2 | 63.5       | 64.3 |
| 65 | 62.2  | 65.1 | 65   | 77.2 | 73.4 | 65       | 67.9 | 61.4 | 63.1 | 66         | 62.7 |
| 66 | 65    | 60.8 | 66.1 | 72.9 | 74.3 | 66       | 69.5 | 64.7 | 66.3 | 62.3       | 64.9 |
| 67 | 67.2  | 69.8 | 65.6 | 72.6 | 74.7 | 67       | 65.3 | 61.3 | 65.6 | 63         | 68.5 |
| 68 | 64.3  | 65.7 | 66.3 | 73.8 | 76.8 | 68       | 70   | 62.5 | 68.6 | 64.1       | 66.2 |
| 69 | 67.1  | 62.7 | 66.1 | 78.8 | 73.2 | 69       | 69.1 | 61.7 | 68   | 63.6       | 63.8 |
| 70 | 64.9  | 66.3 | 65.9 | 78.3 | 75.1 | 70       | 64.7 | 62.5 | 59.3 | 62.6       | 67.7 |
| 71 | 68.2  | 66.4 | 67.2 | 75   | 71.6 | 71       | 62.3 | 59.4 | 64   | 62         | 62.5 |
| 72 | 72.5  | 65.9 | 73.5 | 73.1 | 69.5 | 72       | 71.7 | 60.7 | 63.4 | 63.5       | 67.7 |
| 73 | 71.4  | 66 1 | 81.1 | 71.4 | 73   | 73       | 72.8 | 59.5 | 65.1 | 67.4       | 66.6 |
| 74 | 71 7  | 64.8 | 73.2 | 70.5 | 70 1 | 74       | 76   | 57   | 65.8 | 65         | 69.6 |
| 75 | 69    | 69.0 | 66.5 | 73 / | 71 1 | 75       | 65.9 | 59   | 61 3 | 66.3       | 72.5 |
| 76 | 67.8  | 64.4 | 65.6 | 74   | 73.8 | 76       | 60.7 | 61 1 | 60.4 | 63.4       | 67.2 |
| 77 | 61.0  | 66.4 | 67.4 | 72   | 747  | 70       | 66.0 | 60   | 60.4 | 61 0       | 66.7 |
| 70 | 01.1  | 70   | 01.4 | 70 4 | 14.1 | 70       | 00.0 | 50.0 | 60.4 | 01.0       | 64.0 |
| /8 | 05.CO | 10   | 9.CO | 18.1 | 00.9 | /ð<br>70 | 00.5 | 50.0 | 00.4 | <u>აკვ</u> | 04.2 |
| /9 | 65./  | 69.7 | 68   | 74.3 | /1.1 | 79       | 61.8 | 59.7 | 60.7 | 63.7       | 6/   |
| 80 | 70.9  | 69.5 | 70.6 | 78.8 | /3.1 | 80       | /2.9 | 59.4 | 62.8 | 62.2       | 63.5 |
| 81 | 67.1  | 67.2 | 68.8 | 74.5 | 72   | 81       | 69.9 | 64   | 64.6 | 67.4       | 62   |

| 82    | 67.4   | 65.4  | 68.3   | 70    | 72.2   |  | 82  | 73.4   | 57.9   | 64.5   | 68.9   | 61.4   |
|-------|--------|-------|--------|-------|--------|--|-----|--------|--------|--------|--------|--------|
| 83    | 75.7   | 68    | 70     | 69    | 75.2   |  | 83  | 61.1   | 59     | 66     | 65.9   | 61.3   |
| 84    | 67.4   | 66.7  | 68.3   | 72.1  | 70     |  | 84  | 72.6   | 61.4   | 65.2   | 65.2   | 64.5   |
| 85    | 68.6   | 69.9  | 73     | 72.5  | 69.6   |  | 85  | 65.2   | 58.5   | 68.6   | 60.4   | 65.4   |
| 86    | 69.1   | 64.6  | 65.4   | 73.3  | 69.4   |  | 86  | 73     | 61.7   | 60.7   | 69.3   | 66.1   |
| 87    | 70.4   | 68.1  | 71.8   | 69.4  | 70.3   |  | 87  | 65.7   | 63.5   | 66.1   | 72.4   | 64.8   |
| 88    | 66.3   | 71.2  | 74.3   | 73.6  | 69     |  | 88  | 74.9   | 61     | 63.2   | 66.3   | 70.7   |
| 89    | 68.6   | 69.5  | 66.6   | 69.3  | 70.3   |  | 89  | 75.6   | 59.5   | 69.3   | 67.3   | 65.7   |
| 90    | 65.3   | 72.8  | 74.8   | 72    | 70.8   |  | 90  | 68.9   | 61.2   | 64.4   | 67.9   | 63.8   |
| 91    | 70.4   | 67    | 71.2   | 73.1  | 68.3   |  | 91  | 66     | 61.5   | 66.1   | 64.7   | 59.4   |
| 92    | 74.1   | 66.1  | 64.5   | 72    | 69.4   |  | 92  | 71.9   | 59.8   | 60.8   | 70.9   | 59.1   |
| 93    | 69.9   | 65    | 66.9   | 71.6  | 71.2   |  | 93  | 70.6   | 60.3   | 60     | 65.9   | 62.2   |
| 94    | 66.2   | 66.6  | 67.2   | 72.7  | 65.2   |  | 94  | 72.1   | 61.4   | 69.4   | 64.6   | 59.1   |
| 95    | 70.6   | 71    | 68.5   | 74.2  | 70.7   |  | 95  | 68.4   | 62.7   | 63.3   | 65.6   | 59.5   |
| 96    | 68.1   | 68.8  | 69.9   | 75.6  | 64.5   |  | 96  | 70.2   | 67.3   | 62.4   | 66.3   | 67.7   |
| 97    | 74.2   | 68.7  | 71.2   | 76.3  | 67     |  | 97  | 75.8   | 61.7   | 63.3   | 69.5   | 62.4   |
| 98    | 67.2   | 68.1  | 67.2   | 67.6  | 67.6   |  | 98  | 67.8   | 61.5   | 61     | 64.6   | 62.2   |
| 99    | 66.8   | 69    | 68.2   | 70.5  | 67.6   |  | 99  | 67.9   | 62.7   | 61.2   | 66     | 67.2   |
| 100   | 68.8   | 72.1  | 65.6   | 73.1  | 65.5   |  | 100 | 70.8   | 59.6   | 62.3   | 61.4   | 67.7   |
| 101   | 67.7   | 69.5  | 69.5   | 70.6  | 67.5   |  | 101 | 69.4   | 67.4   | 64.8   | 66.6   | 59.5   |
| 102   | 68.2   | 69.5  | 71.6   | 67.1  | 65.5   |  | 102 | 66.3   | 60.4   | 66.2   | 65.3   | 72.2   |
| 103   | 73.5   | 67.8  | 72.5   | 71.2  | 66.7   |  | 103 | 64.9   | 67.3   | 63.1   | 67     | 62.7   |
| 104   | 63.7   | 68.3  | 68.1   | 72.5  | 68     |  | 104 | 61.7   | 65.6   | 64.6   | 66     | 59.7   |
| 105   | 65.1   | 70.4  | 69.5   | 73.1  | 68.5   |  | 105 | 66.2   | 62.8   | 67.4   | 67.6   | 61.2   |
| 106   | 67.4   | 71.1  | 72.1   | 73.7  | 72.3   |  | 106 | 61.8   | 64.3   | 67.4   | 65.5   | 64     |
| 107   | 68.2   | 68.9  | 74.7   | 70    | 72.2   |  | 107 | 58.3   | 63.3   | 64.2   | 63.9   | 65     |
| 108   | 68.5   | 68.4  | 70.2   | 69.5  | 69.7   |  | 108 | 66.1   | 66.8   | 62.1   | 65     | 62.3   |
| 109   | 72.5   | 68.4  | 66.1   | 72.3  | 67.2   |  | 109 | 66     | 60.8   | 62.9   | 65.3   | 63.6   |
| 110   | 75.5   | 67.6  | 79.6   | 65.5  | 72.5   |  | 110 | 63.1   | 62.4   | 60.6   | 65.8   | 60.4   |
| 111   | 68.5   | 70.4  | 71.8   | 67.7  | 67.3   |  | 111 | 62.9   | 67     | 67.6   | 65     | 67.2   |
| 112   | 66.5   | 65.6  | 73.2   | 73.4  | 69.5   |  | 112 | 66.5   | 70.4   | 62.6   | 65.6   | 65.4   |
| 113   | 68.9   | 69.9  | 66.8   | 66.6  | 70.2   |  | 113 | 64.8   | 66.7   | 63.7   | 62.5   | 61.7   |
| 114   | 71.5   | 69.3  | 76.7   | 73.9  | 67.1   |  | 114 | 66.1   | 66.2   | 69.7   | 63.8   | 63.3   |
| 115   | 65.9   | 69.6  | 73     | 70.9  | 68.7   |  | 115 | 66.1   | 70.3   | 64.5   | 61.2   | 65.1   |
| 116   | 65.4   | 66.3  | 65.3   | 69.5  | 70.1   |  | 116 | 59     | 69.7   | 64.3   | 65.2   | 68.8   |
| 117   | 69.3   | 67.7  | 74.8   | 74.6  | 64.2   |  | 117 | 70.2   | 69.4   | 63.4   | 62.7   | 67.1   |
| 118   | 70.8   | 69    | 71.6   | 70.1  | 66.3   |  | 118 | 66.7   | 63.7   | 65.4   | 62.5   | 65.6   |
| 119   | 66.8   | 69.2  | 73.9   | 72.5  | 65.5   |  | 119 | 69.9   | 63.6   | 66.1   | 61.2   | 66.6   |
| 120   | 63.3   | 64.7  | 79     | 70.4  | 73     |  | 120 | 64.2   | 62.8   | 66.6   | 61.6   | 64.9   |
| TOTAL | 8504.5 | 8084  | 8275.1 | 8612  | 8585.1 |  |     | 8046.8 | 7545.5 | 7599.4 | 7715.6 | 7929.7 |
| MEAN  | 70.87  | 67.36 | 68.96  | 71.77 | 71.54  |  |     | 67.06  | 62.88  | 63.33  | 64.3   | 66.08  |

Table 5 manifests the mean of voice level 1 or conversation voice of each trial for the control group and the experimental group. In like manner, table 3 reveals that the mean for the control group is 70.10 dB while the experimental group is 64.70 dB. Additionally, the table also surfaced that in all trials, the experimental group consistently posted a noticeably lower voice level.

Furthermore, table 5 posits that the experimental group has lower mean for voice level 1 compared with the control group. As displayed, the voice level of the experimental group

conforms within the range of voice level 1 which is 64.01 dB-70.00 dB while the control group exceeded the desired voice level range. From this standpoint, the researcher assoociated the result to the existence of the EVV voice conditioning device in the classroom of the experimental group. Likewise, the finding casts a new light that the device most likely helped in providing information as to how students conduct accordingly in relation to their voice levels. Apparently, this forewarned the students to sustain a conversation voice when the yellow light is on. Indeed, this suggests that the presence of the image with a group of students in a brainstorming session and the number 1 may have assisted the management of voice levels as well. Thus, the data implied, that the use of the EVV conditioning device is effective in controlling voice levels in the classroom.

The result confirms a statement wherein the smooth classroom traffic program using traffic lights helped reduce noise levels and head off disruptive behaviors before they occur (Smooth Classroom Traffic, n.d.). In addition, the result ties well with with the finding in New Zealand, where the safe, sound indicator flashes green, amber – then red to let pupils and teachers know when it reaches intolerable levels, which attributed a success at significantly cutting noise in child centers (Using Traffic Lights in the Classroom, 2016). The result further underlines the statement that visual tool is effective in the management of classroom noise (Silent Light Helps Teachers Control the Noise in their Classrooms, 2013).

| Table 5. Wea | n at voice Le |            | Control and | Experimental | Group Aller | Implementatio |
|--------------|---------------|------------|-------------|--------------|-------------|---------------|
| Group        | Trial1(dB)    | Trial2(dB) | Trial3(dB)  | Trial4(dB)   | Trial5(dB)  | Mean(dB)      |
| Control      | 70.87         | 67.36      | 68.96       | 71.77        | 71.54       | 70.10         |
| Experimental | 67.06         | 62.88      | 63.33       | 64.30        | 66.08       | 64.73         |

Table 5. Mean at Voice Level 1 of the Control and Experimental Group After Implementation



Figure 2. Noise Level for Noise Level 1 or Conversation Voice of the Control Group and Experimental Group

Figure 2 shows the graph comparing the voice level at voice level 1 or conversation voice of the control and the experimental group. The figure shows that the experimental group posted lower voice level compared with the control group.

Table 6 unveils the result of the t-test between the mean of voice level 1 or conversation voice of the control group and the experimental group. As surmised in Table 4, the t-value is 4.63 and the p-value is 0.0017 which is lower than 0.05 level of significance and this is certainly significant.

The t-test divulged that there is a significant difference between the control group and the experimental group in voice level 1 or conversation voice as shown in Table 4. This difference roots from the use of the EVV conditioning device in the experimental group

Table 6. Test Difference Between the Mean at Voice Level 1 of the Control and Experimental Group After Implementation

| Group        | Mean  | t-value | p-value |  |
|--------------|-------|---------|---------|--|
| Control      | 70.10 | 4.61    | .0017   |  |
| Experimental | 64.73 |         |         |  |

might have influenced the students to control their noise levels. As mentioned by Heick (2018), the use of effective strategies can get the attention of a noisy classroom.

Table 7 presents the voice level readings that were recorded for voice level 2 or reporting voice in the experimental and control group. The table also shows that there are 60 voice level readings for each trial of the five trials for both the control group and the experimental group.

Table 7. Recorded Voice Level Readings at Voice Level 2 or Reporting Voice of the Control Group and Experimental Group

| Control     |       |       |       |       |       |   |          | Experimental |       |       |       |       |
|-------------|-------|-------|-------|-------|-------|---|----------|--------------|-------|-------|-------|-------|
|             | Trial | Trial | Trial | Trial | Trial |   | Voice    | Trial        | Trial | Trial | Trial | Trial |
| Voice Level | 1     | 2     | 3     | 4     | 5     |   | Level    | 1            | 2     | 3     | 4     | 5     |
| Readings    | (dB)  | (dB)  | (dB)  | (dB)  | (dB)  |   | Readings | (dB)         | (dB)  | (dB)  | (dB)  | (dB)  |
| 1           | 71    | 78.3  | 63.4  | 75.7  | 67.4  |   | G1       | 81.4         | 68.2  | 71.1  | 76.1  | 74    |
| 2           | 75    | 79.3  | 76.5  | 75.1  | 76.5  |   | 2        | 72.7         | 77.6  | 78.4  | 76.2  | 72.8  |
| 3           | 68    | 77.4  | 66.6  | 82    | 66.6  |   | 3        | 75.6         | 72.7  | 79.4  | 73.5  | 74.5  |
| 4           | 77    | 74.4  | 74.3  | 74.1  | 71.7  |   | 4        | 75.7         | 78.2  | 74.6  | 62.2  | 81.8  |
| 5           | 79.6  | 77.5  | 70.4  | 66.4  | 71.3  |   | 5        | 74           | 72.8  | 80.5  | 72.4  | 76.8  |
| 6           | 76.7  | 74.9  | 73.2  | 80.3  | 76.9  |   | 6        | 71.2         | 69.1  | 77.5  | 78    | 78.8  |
| 7           | 68.6  | 70.4  | 68.6  | 74.1  | 72.7  |   | 7        | 63.3         | 82    | 87.8  | 61.6  | 61.6  |
| 8           | 75.4  | 70.3  | 76.2  | 82.3  | 76.2  |   | 8        | 74.8         | 78.7  | 83.1  | 82.2  | 82.2  |
| 9           | 77.5  | 77.7  | 75.7  | 77.4  | 77.7  | - | 9        | 71.7         | 62    | 76.7  | 73.4  | 67.2  |
| 10          | 71.7  | 79.9  | 74.2  | 82    | 74.2  |   | 10       | 68           | 83    | 80.7  | 73.5  | 75    |
| 11          | 72.2  | 72    | 76.3  | 78.4  | 76.7  | - | 11       | 55.3         | 77.7  | 76    | 81.5  | 70.4  |
| 12          | 81.9  | 78.3  | 71.6  | 69.5  | 71.6  | - | 12       | 76.3         | 76.2  | 67.9  | 62.1  | 74.5  |
| 13          | 75.4  | 71.2  | 75.6  | 72.9  | 62.5  |   | 13       | 71.9         | 66.5  | 82    | 62.5  | 62.5  |
| 14          | 77.4  | 73    | 66.7  | 65.8  | 65.1  |   | 14       | 69.4         | 78.4  | 79.3  | 79.5  | 74.7  |
| 15          | 76.8  | 85.1  | 76.2  | 80.3  | 76.2  |   | 15       | 76.4         | 72.1  | 72.1  | 79.7  | 72.9  |
| 16          | 66.9  | 77    | 75.9  | 80.7  | 75.2  |   | 16       | 68.1         | 63.8  | 75    | 74    | 79.5  |
| 17          | 76    | 79.6  | 77.3  | 69.8  | 74.7  |   | 17       | 68.7         | 82.3  | 72.3  | 76.5  | 69.8  |
| 18          | 66    | 76.9  | 75    | 82.5  | 75    |   | 18       | 78.8         | 73.2  | 74.2  | 79.4  | 78.4  |
| 19          | 75.2  | 75.1  | 75.8  | 65.7  | 70.2  |   | 19       | 79.3         | 79.4  | 76.5  | 81.9  | 63.3  |
| 20          | 73.4  | 85.7  | 76.2  | 70.5  | 71.6  |   | 20       | 77.2         | 74.9  | 72    | 60.9  | 82.2  |
| 21          | 75.5  | 75.4  | 72.7  | 80.6  | 72.7  |   | 21       | 77.9         | 74.1  | 74    | 61.7  | 63.4  |
| 22          | 72.3  | 76.1  | 71.6  | 66.3  | 71.3  |   | 22       | 74.8         | 81.5  | 74.9  | 61.8  | 78.4  |
| 23          | 77.9  | 70.4  | 68.3  | 81    | 75.7  |   | 23       | 79.5         | 71.3  | 76.6  | 67    | 71.1  |
| 24          | 77.7  | 76.6  | 64.6  | 81.6  | 63.5  |   | 24       | 77.4         | 83.6  | 81.2  | 62.8  | 63.9  |
| 25          | 73.4  | 75.7  | 79.1  | 73.6  | 66.6  |   | 25       | 70.2         | 80.9  | 73.5  | 75    | 74    |
| 26          | 76    | 74.1  | 78.6  | 63.8  | 79.1  |   | 26       | 84           | 76.1  | 65.2  | 63    | 76.9  |
| 27          | 75.2  | 73.4  | 66.9  | 82.4  | 78.7  |   | 27       | 77           | 76.1  | 70.7  | 75.9  | 78    |
| 28          | 76.5  | 77.6  | 69.5  | 76.6  | 80.7  |   | 28       | 74.5         | 79.5  | 65.7  | 69.5  | 78.4  |
| 29          | 69.3  | 70.9  | 68.2  | 77.5  | 69.6  |   | 29       | 82.7         | 66.9  | 74.4  | 82    | 84.2  |
| 30          | 72.1  | 71    | 74.2  | 72.3  | 63.3  |   | 30       | 65.6         | 78.3  | 74.6  | 62.1  | 77.7  |
| 31          | 73.8  | 62.7  | 78.6  | 75    | 74.2  |   | 31       | 78.7         | 76.4  | 78    | 82.2  | 75.1  |
| 32          | 69.5  | 67.3  | 71.6  | 77.3  | 76.7  |   | 32       | 75.6         | 69.1  | 73.5  | 79.5  | 82.7  |
| 33          | 68.6  | 71.4  | 63.8  | 77.6  | 73.2  |   | 33       | 79.5         | 70.4  | 70.5  | 79.7  | 75.2  |

| 34    | 69.1   | 69.9   | 65.1   | 80     | 62.5   | 34 | 73.1   | 82.2   | 72     | 74.7   | 82.4   |
|-------|--------|--------|--------|--------|--------|----|--------|--------|--------|--------|--------|
| 35    | 73.5   | 78.5   | 75.2   | 76.7   | 66.7   | 35 | 77.1   | 68.7   | 71.6   | 76.5   | 83     |
| 36    | 80.1   | 77     | 75.2   | 80.9   | 76.2   | 36 | 64.8   | 76.7   | 70.9   | 75.5   | 80.1   |
| 37    | 71.1   | 67.2   | 71.1   | 67.5   | 75.9   | 37 | 77.3   | 74.3   | 75.2   | 81.9   | 75.9   |
| g38   | 62     | 75.2   | 65.2   | 65.2   | 74.1   | 38 | 61.5   | 77.5   | 78.8   | 60.9   | 73.6   |
| 39    | 68.6   | 65.5   | 70.2   | 66.4   | 65.2   | 39 | 79.8   | 75.2   | 75.8   | 61.7   | 73.4   |
| 40    | 75.2   | 77     | 71.6   | 83.6   | 70.2   | 40 | 67.7   | 77.7   | 83.2   | 72.3   | 75.3   |
| 41    | 77.1   | 75.1   | 72.7   | 71.6   | 71.6   | 41 | 75.8   | 81.1   | 74.2   | 63.5   | 77.1   |
| 42    | 72.8   | 79.1   | 71.3   | 73.6   | 72.3   | 42 | 76.2   | 76.4   | 81.5   | 77     | 78.5   |
| 43    | 71     | 72.4   | 75.7   | 67.8   | 71.3   | 43 | 74.8   | 61.3   | 78.8   | 80.8   | 75     |
| 44    | 74.6   | 79.6   | 63.5   | 82.4   | 75.7   | 44 | 68     | 67     | 75.6   | 64     | 75.2   |
| 45    | 68.1   | 75.3   | 64.6   | 76.6   | 63.3   | 45 | 79.6   | 73.4   | 82.2   | 62.4   | 79     |
| 46    | 80.2   | 83.8   | 79.1   | 77.5   | 66.5   | 46 | 65.8   | 78.4   | 70.1   | 66.5   | 80.5   |
| 47    | 81     | 79.2   | 78.3   | 70.3   | 79.2   | 47 | 80.1   | 71.1   | 69.3   | 78.2   | 77.9   |
| 48    | 70.6   | 83.8   | 66.9   | 75     | 78.7   | 48 | 77.9   | 78.4   | 77     | 73.7   | 71.6   |
| 49    | 75.7   | 81.1   | 79.5   | 77.3   | 80.7   | 49 | 74.3   | 66.4   | 79.9   | 73.3   | 78.4   |
| 50    | 65.3   | 78     | 63.3   | 77.6   | 69.5   | 50 | 77     | 74.6   | 76.4   | 72     | 73.6   |
| 51    | 73     | 82.9   | 65.7   | 79     | 63.3   | 51 | 67.5   | 80.5   | 75.1   | 62.5   | 71.6   |
| 52    | 70.9   | 77.9   | 77.9   | 76.7   | 65.7   | 52 | 77.7   | 77.5   | 76.8   | 72.8   | 75.2   |
| 53    | 71.2   | 72.3   | 71     | 80.9   | 77.9   | 53 | 76     | 87.8   | 68.7   | 79.1   | 76.2   |
| 54    | 70.9   | 83.3   | 73.3   | 67.5   | 71.9   | 54 | 72.5   | 83.1   | 76.9   | 71.1   | 78     |
| 55    | 71.8   | 78.7   | 77.3   | 65.2   | 74.3   | 55 | 73.2   | 76.6   | 76.6   | 63.1   | 74     |
| 56    | 80.4   | 80.1   | 71.3   | 66.4   | 77.7   | 56 | 70.1   | 80.9   | 74.8   | 68.1   | 76.3   |
| 57    | 82.7   | 70.7   | 77.2   | 83.5   | 71.3   | 57 | 77.6   | 76.6   | 77.7   | 74.5   | 77.5   |
| 58    | 72.7   | 82     | 76.4   | 84.6   | 76.7   | 58 | 80.2   | 67.9   | 79.3   | 66.3   | 73.4   |
| 59    | 81.3   | 76.6   | 73.2   | 84.7   | 76.9   | 59 | 81.6   | 78.1   | 78.2   | 75.5   | 74.1   |
| 60    | 77.7   | 77.5   | 66.3   | 79.6   | 64.3   | 60 | 78.1   | 78.9   | 75.9   | 65.4   | 79.7   |
| TOTAL | 4428.1 | 4556.3 | 4331.5 | 4529.2 | 4334.9 |    | 4452.5 | 4521.3 | 4542.4 | 4302.6 | 4518.4 |
| MEAN  | 73.80  | 75.93  | 72.19  | 75.48  | 72.24  |    | 74.21  | 75.36  | 75.71  | 71.71  | 75.31  |

Table 8 conveys the mean of voice level 2 or reporting voice of each trial for the control group and the experimental group. Apparently, the table exposes that the mean of the control group is 73.93 dB while the experimental group is 74.46 dB.

In addition, table 8 speculates that the mean of voice levels for voice level 2 or reporting voice are almost the same in both the control and the experimental group. Both groups are within the desired voice level range of 70.00 dB-75.00dB; nevertheless, the voice level of the experimental group is slightly higher than the control group. The researcher attributes the result to the presence and use of the EVV conditioning device in the classroom of the experimental group. The device apparently helped in purveying a hint that the reporting voice should be audible, but not too loud for the whole class, thus, signalled the students to maintain a reporting

| Inp          | lementation |       |       |       |       |          |
|--------------|-------------|-------|-------|-------|-------|----------|
| Group        | Trial1      | Trial | Trial | Trial | Trial | Mean(dB) |
|              | (dB)        | 2(dB) | 3(dB) | 4(dB) | 5(dB) |          |
| Control      | 73.80       | 75.93 | 72.19 | 75.48 | 72.24 | 73.93    |
| Experimental | 74.21       | 75.36 | 75.71 | 71.71 | 75.31 | 74.46    |

Table 8. Mean at Noise Level 2 of the Control Group and Experimental Group After the Implementation

voice when the green light is on. Moreover, the presence of the image of a student reporting nevertheless facilitated the management of voice level as well.

Figure 3 shows the graph comparing the voice level at voice level 2 or conversation voice of the control and the experimental group. The figure shows that the voice levels of the experimental group and control group do not register a consistent trend. This means that at a given trial, the experimental group or the control group registered a higher noise level.



Figure 3. Voice Level at Voice Level 2 or Reporting Voice of the Control Group and Experimental Group

| Table 9. | Test Difference Bet | ween the Mea    | n at Voice  | Level 2 d | of the C | ontrol ( | Group | and |
|----------|---------------------|-----------------|-------------|-----------|----------|----------|-------|-----|
|          | Experimental Grou   | p After the Imp | olementatio | on        |          |          |       |     |

| Group       | Mean    | t-value | p-value |  |
|-------------|---------|---------|---------|--|
| Control     | 73.93   | 0.50    | 0.6333  |  |
| Experimenta | l 74.46 |         |         |  |

Table 9 unveils the result of the t-test between the mean of noise level 2 or reporting voice of the control and experimental group. Moreover, table 6 portrays a generated t-value of 0.50 and the p-value of 0.6333 which is higher than the 0.05 level of significance and therefore, surely not significant.

The result highlights that the presence-absence of the EVV conditioning device did not affect the voice levels of the students of both the control and experimental group. The result seemed likely attributed to the context that students have to speak loud enough when reporting while the rest remains attentive when someone reports or speaks up in class. In line with previous studies, Rodriguez (2015) mentioned that while some are serious enough in nature to warrant formal disciplinary action, others do not require intervention or confrontation.

### Reflection

Based on the findings obtained by the researcher, it shows that the use of EVV conditioning device is effective in the management of classroom noise.

#### **Conclusion and Recommendations**

Teachers can manage noise with EVV cnditioning device that serve as intervention. Moreover, available mechanisms are helpful in managing noise provided there is proper reinforcement from the teachers. Consequently, both teachers and learners become less stressed, turn out to be engrossed and expected to decrease disturbance. Indeed, pedagogues can advocate the use of helpful intervention tools and promote sound classroom environment.

The researcher is highly recommending to the secondary school teachers the use of EVV conditioning device in managing classroom voice levels at Castor Z. Concepcion Memorial National High School and the other secondary schools of the division of La Union. This intervention material can also be used in the elementary schools. Likewise, the EVV conditioning device as classroom management tool can be considered during policy planning.

# ACTION PLAN SCHOOL YEAR 2019-2020

## MANAGING THE VOICE LEVELS OF GRADE 12 CLASSES THROUGH EVV CONDITIONING DEVICE

| ACTIVITY      | OBJECTIVES             | STRATEGY/IES         | PERSONS        | TIMELINE    | RESOURCES    | SUCCESS          |
|---------------|------------------------|----------------------|----------------|-------------|--------------|------------------|
|               |                        |                      | RESPONSIBLE    |             |              | INDICATOR        |
| Information   | To inform and          | 1. Inform the        | Researcher     | August 2019 | Manuscript   | Informed and     |
| Dissemination | disseminate the        | administrators and   | Administrators | onwards     | Powerpoint   | disseminated the |
|               | result of the action   | teachers the         | Teachers       |             | presentation | result of the    |
|               | research (AR) to the   | results of the       |                |             |              | action research  |
|               | administrators,        | action research      |                |             |              |                  |
|               | teachers, for the      | during the           |                |             |              |                  |
|               | adoption of the EVV    | Learning Action      |                |             |              |                  |
|               | conditioning device in | Cell (LAC) session   |                |             |              |                  |
|               | managing classroom     | and during Cluster   |                |             |              |                  |
|               | voice levels.          | In-Service-          |                |             |              |                  |
|               |                        | Training (INSET).    |                |             |              |                  |
| Resourcing    | 1. To solicit EVV      | 1. Conduct           | Researcher     | August 2019 | Solicitation | Availability of  |
|               | conditioning device    | classroom PTA        | Administrators | onwards     | Letters      | EVV              |
|               | resources for the      | meeting.             | Teachers       |             |              | conditioning     |
|               | classrooms.            |                      | Parents        |             |              | device in the    |
|               |                        |                      | Stakeholders   |             |              | classrooms       |
|               | 2. To encourage        | 2. Give solicitation |                |             |              |                  |
|               | advisers to support    | letters to           |                |             |              |                  |
|               | the EVV conditioning   | stakeholders.        |                |             |              |                  |
|               | device resourcing as   |                      |                |             |              |                  |
|               | classroom project.     |                      |                |             |              |                  |
| Mentoring     | To assist/mentor       | Conduct a seminar    | Researcher     | August      | EVV          | Utilization of   |
|               | teachers on the use    | workshop of on       | Administrators | 2019-       | conditioning | EVV              |
|               | of EVV conditioning    | the use of EVV       | Teachers       | onwards     | device       | conditioning     |

|            | device to regulate    | conditioning       |                |             |               | device in       |
|------------|-----------------------|--------------------|----------------|-------------|---------------|-----------------|
|            | voice levels in the   | device during the  |                |             |               | managing        |
|            | classrooms.           | Learning Action    |                |             |               | classroom voice |
|            |                       | Cell (LAC) session |                |             |               | levels          |
| Classroom  | To monitor the use of | Classroom          | Administrators | August 2019 | EVV           | Improved noise  |
| Monitoring | EVV conditioning      | observations       | Teachers       | onwards     | conditioning  | management in   |
|            | device in the         |                    |                |             | device in the | the classrooms  |
|            | classrooms`           |                    |                |             | classrooms    |                 |

Prepared by:

# EMILIA V. VIZCARRA

Researcher

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# **Financial Report**

| Deliverable/s  | Activity/ies                                |   |  | Item/s of  | Actual Cost             |
|--|---|---|--|--|-------------------------|
|  |   |   |  | Expenditures   |                         |
| 1. Research<br>Proposal                                | *Making of<br>introduction                  | • | Reading of<br>research materials<br>(journals, books,<br>action researches,<br>theses,<br>dissertations)       | *Internet fee<br>*Fare going to<br>libraries                                   | P 300.00<br>P 200.00    |
|  | * Formulating<br>the problem<br>statement   | • | Analyzing the<br>current classroom<br>atmosphere as<br>affected by noise<br>Reading of related<br>articles     | *Internet fee  | P 300.00                |
|  | *Making of the<br>research<br>methodology   | • | Reading of related studies   | *Internet fee  | P 300.00                |
| a.<br>Communication<br>expenses and<br>Travel expenses | *Preparation of<br>the research<br>proposal | • | Communicate with<br>authorities for the<br>preparation,<br>evaluation, revision<br>of the research<br>proposal | *Internet fee<br>*Cellular<br>phone load<br>*Printing of<br>edited<br>proposal | P2,500.00               |
|  |   |   |  | *1 set printer ink   | P 1200.00<br>(1200/set) |
|  |   |   |  | *Fare  | P 200.00                |

| b.  | *Consultations                                  | ٠ | Incorporating   | *Fare  | P 200.00                         |
|---|---|---|---|--|----------------------------------|
| Communication   | to experts on                                   |   | suggestions of the  |  |                                  |
| expenses and  | the statistical                                 |   | experts   |  |                                  |
| Travel expenses   | tool and<br>analysis                            |   |   | *Snacks  | P 150.00                         |
|   |   |   |   | (3 persons)  | (50/ head)                       |
|   |   |   |   |  |                                  |
|   |   |   |   | *Meals   | Lunch                            |
|   |   |   |   | (3 persons)  | P 450.00                         |
|   |   |   |   |  | (150/ head)                      |
| 2. Use of EVV<br>conditioning<br>device and<br>Recording of | *Putting up of<br>EVV<br>conditioning<br>device | • | Purchase of<br>supplies and<br>materials for EVV<br>conditioning device | *1 set of colored<br>bulbs with<br>wires, battery<br>and charger | P 920.00                         |
| Noise level   |   |   |   | *Fare  | P 200.00                         |
|   |   | • | Installation of EVV conditioning device                                 | *Snacks<br>(2 persons)   | P 100.00<br>(50/ head)           |
|   |   |   |   | *Meals<br>(2 persons)  | Lunch<br>P 300.00<br>(150/ head) |
|   |   | • | Purchase of supplies and materials                                      | *1 pc. Noise<br>Meter  | P 900.00                         |
|   |   |   |   | *160 pcs.<br>Manila paper  | P 530.00<br>(5/ pc)              |
|   |   | • | Purchase of<br>supplies and<br>materials for                            |  | (-, -, -,                        |
|   |   |   | CIASSFOOM ACTIVITIES  | *20 pcs.<br>Permanent  | P 1200.00<br>(60/ pc)            |

|                     |                         |  | marker                       |                                      |
|---------------------|-------------------------|--|------------------------------|--------------------------------------|
|                     |                         |  | *Fare                        | P 200.00                             |
| 4. Findings         | *Gathering and          | <ul> <li>Writing and printing</li> </ul>                                   | *1 ream coupon               | P 175.00                             |
| (Initial and Final) | Interpreting<br>results | the results  | bond                         | (175/ ream)                          |
| 5. Final Copy of    | *Finalization of        | <ul> <li>Writing and Editing</li> </ul>                                    | *1 ream coupon               | P 175.00                             |
| the Action          | the manuscript          | the manuscript   | bond                         | (175/ ream)                          |
| Research            |                         |  | *1 set printer ink           | P 1200.00                            |
|                     |                         |  |                              | (1200/set)                           |
| 6. Food             | *Dissemination          | Conduct of School-   | Snacks and                   | P 6800.00                            |
| Expenses for        | of the research         | based Learning   | Lunch for                    | (am and                              |
| Seminars            |                         | Action Cell (LAC)  | teachers (68                 | pm)                                  |
|                     |                         |  | teachers)                    | (50/head)                            |
|                     |                         | a. Presentation of the   |                              |                                      |
|                     |                         | action (am) research study   |                              | P 6800.00                            |
|                     |                         | b. Demonstration   |                              | Lunch<br>(100/head)                  |
|                     |                         | and Workshop on the use  |                              |                                      |
|                     |                         | of the intervention/tool in  |                              |                                      |
|                     |                         | different classes (pm)   |                              |                                      |
|                     |                         | <ul> <li>Conduct of District<br/>Learning Action<br/>Cell (LAC)</li> </ul> | Snacks for<br>teachers (100) | P 5000.00<br>(am snack)<br>(50/bead) |
|                     |                         |  |                              |                                      |
|                     |                         | TOTAL  |                              | P30,000.00                           |