Online Instruction on Sound Recognition of Kindergarten Learners

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Abstract – The study focused on the use of Online Instruction on Sound Recognition of Kindergarten Learners. The researcher will make use of single-subject experimental Analysis, specifically the AB experimental design. In selecting the student respondents, the researcher will identify the kindergarten students with difficulties recognizing the sounds in their progress reports. In the analysis of data, the researcher will compare the progress report of kindergarten students on sound recognition and the assessment after exposure to sound recognition. There were initially forty (40) students and twenty-seven of them were identified as having difficulties with sound recognition. The study yielded that the use of online training is particularly helpful in helping students improve their sound detection skills. Technology must be used by teachers, and they must be trained to use it. Similarly, the use of online instruction has allowed teachers and parents to collaborate. One of the more difficult aspects of using online training is the poor internet connection and the long time it is required to execute it.

Keywords: online instruction, sound recognition skills

Introduction

Technology must be used with caution in this age of distance learning. Instructional videos can be used to show how to do something, convey information, explain a topic, or showcase a procedure. Another example of a teacher using creativity to express how they might help their students study more efficiently, despite the fact that they are in the midst of a pandemic. Teachers employ a number of bits of intelligence to come up with novel approaches to meet their pupils’ needs. Instructors can also innovate to use their various bits of intelligence. A teacher in the twenty-first century should design something to help him or her impart information to students more effectively. With that in mind, the researcher would like to ascertain the effect of using online instruction in the sound recognition of kindergarten pupils during the pandemic. Teaching and learning as challenged by the pandemic have created a new normal scenario. In the case of teaching sound recognition among young children, this has been regarded as complicated for both teachers and pupils.

Sound recognition is a basic skill, a solid foundation on which reading skills are anchored. Young learners should master sound recognition skills to tackle the higher skills in sound production and recognition. This is one of the issues of concern in teaching and learning. Based on the Progress report of the ECD, 9 in every 27 kindergarten learners are struggling in sound recognition in one-on-one online instruction. This figure is alarming considering that this should be mastered by them as a fundamental skill. According to McCormick and Zutell (2011), struggling with reading causes dissatisfaction, disinterest, and avoidance of reading in youngsters. It underlines that children who fall behind in reading at a young age will continue to fall behind their peers. This is because children who read well read more, whereas children who struggle with reading read less and do not improve their reading skills (McCormick & Zutell, 2011). Moreover, Early reading deficiencies, according to Lennon and Slesinski (1999), may lead to overall problems with academic learning, and progress, students require direct and intense teaching in the early stages of reading. Intensive education, they argue, can be utilized to identify whether a pupil is easy to remediate, difficult to remediate, or truly learning handicapped. They agree that students should get significant reading instruction before being designated as special education students.
The Philippines received the lowest reading comprehension score in the 2018 Program for International Student Assessment out of numerous participating nations (PISA). The Philippines' average reading score was 340, more than 200 points lower than China's (555), and over 100 points worse than the OECD average (487). The Philippines’ reading scores for both boys and girls were the worst among PISA participant nations. The ability to read has been shown to be crucial for a number of human activities, including speaking with others for a particular purpose or transaction and following directions in a manual to learn the who, what, when, where, and why of an event (San Juan, 2019). Moreover, Despite the focus on reading's importance, reading proficiency is declining, especially in the primary grades, according to the 2010 results of the Philippine Informal Reading Inventory (Phil IRI) Oral Reading. An alarming volume of data from other online pieces backed this assertion. According to prior research, only 6.59 percent of high school pupils in a particular 2004–2005 school year were able to read, speak, and understand English. For everyone, 44.25 percent of people did not speak English (Echaure and Torno, 2017).

The researcher witnessed firsthand as a public-school teacher how students arrive at school with a diverse set of prior experiences and talents. Every year, she saw that students who struggled to learn their letters also struggled to learn the letter's sound, mix sounds, and read words. They struggle with reading, which may also be related to the fact that their parents are either too busy working to help them with their lessons or have a reduced academic background, and others because of poverty are unable to assist their children in reading. Similar to this, some kids skip breakfast and wind up going to school hungry, which makes it difficult for them to focus fully during reading classes. All in all, this explained why kids struggle with sound recognition and consequently struggle to learn how to read. And so, the researcher believed that this study holds great significance to the improvement of the reading skills of kindergarten learners.

This study was developed using these viewpoints and observations. The Department of Education is doing this with the good goal of supporting our students. The study's objective was to use online training to assist kindergarten students in strengthening their letter-sound recognition abilities in order to improve their reading abilities and foster a reading culture, which is currently seen as a crucial skill in the new mode of instruction. After this action research is finished, it is anticipated that the findings will be published and widely shared, allowing other schools and teachers to use online training to enhance kindergarten students' sound detection abilities.

Review of Related Literature

The following literature and studies, directly and indirectly, impact the current study. It is categorized into (1) Sound Recognition in Kindergarten and (2) Online Instruction.

Sound Recognition in Kindergarten

Learning to read English necessitates an understanding of the alphabetic writing system (Ball & Blachman, 1991). The alphabet principle asserts that letters (graphemes) and sounds have a relationship (phonemes). To put it another way, the child or learner must grasp that spoken words are divided into smaller units (phonemes) and that "the phoneme is the unit in the speech stream represented by the symbols in the alphabetic script" (Ball & Blachman, 1991). For children learning to read, the names of alphabet letters are intangible, their sounds are abstract, and the relationship between the letter shape and its name is meaningless. Without an understanding of the phonemic structures of words or phonological awareness, spelling is comparable to a collection of strange forms or arbitrary symbol strings that are practically impossible to recall (Ehri, 1991).

Phonological awareness refers to a child's understanding that spoken words are made up of sounds (Torgeson, Wagner, & Roshotte, 1997). The realization that spoken words are made up of distinct phonemes is referred to as phonemic awareness, which is a subset of phonological awareness. This talent necessitates the capacity to break down speech into individual words or sounds and analyze the many components of natural speech. In addition, the Children’s understanding of letterforms, names, and associated sounds, collectively known as alphabet knowledge, is a fundamental emergent literacy skill that uniquely predicts children's later reading
performance, according to a growing body of evidence (Schatschneider, Fletcher, Francis, Carlson, &Foorman, 2004).

Likewise, Phonological awareness, or the ability to recognize and manipulate phonemes, syllables, onset, and rimes into words, is an important predictor of children's reading and writing success (Caravolas, Volin, &Hulme, 2005; McBride-Chang &Kail, 2002; Patel, Snowling, & de Jong, 2004). It has been proven that phonological awareness boosts alphabetic literacy (Tunmer, Herriman, &Nesdale, 1988), and that alphabetic literacy boosts phonological awareness (Mann &Wimmer, 2002). Some scholars believe that phonological awareness develops as a result of gaining alphabetic literacy (Castles & Coltheart, 2004).

Furthermore, Children's understanding of letterforms, names, and associated sounds, together known as alphabet knowledge, is a vitally crucial emergent literacy skill that uniquely predicts children's later reading performance, according to a growing body of evidence (Schatschneider et. al., 2004). According to Manolitsis and Tafa (2009), improving phonological awareness which is the recognition of sounds through words by decoding or breaking the sound heard, and phonemic awareness or the recognition of sounds through words by decoding or breaking the sound heard, can help children overcome their language difficulties. Hence, a study on sound recognition is significant since this will identify the strengths and weaknesses of the learners in such a way that an intervention can be done to address their weaknesses and enhance their strengths. If the performance level of the learners could be identified, then it will be easier for both teachers and parents to address these gaps.

Moreover, in an alphabetic script, onset-rime awareness comes before learning to read, according to Goswami and Bryant (1990), but phoneme awareness comes after learning to read. Others, although acknowledging the reciprocal relationship between phonological awareness and reading, disagree with the assumption that phoneme awareness can only be formed as a result of reading (Muter et al., 2004). This latter viewpoint is reinforced by research showing that preschoolers who did not know how to read were able to detect and manipulate phonemes in words after receiving training (Lundberg et al., 1988).

In addition, there is a strong link between letter knowledge and phonological awareness in preschool (Burgess &Lonigan, 1998) and first-grade students, according to research (Caravolas et al., 2001). The link between phonological awareness and letter knowledge could be explained by the fact that letters can be thought of as printed correspondence of phonemes (Foulin, 2005), or phonemes can be thought of as "the letters' linguistic partners" (Byrne, 1998). Higher phonological awareness abilities, such as phoneme segmentation or phoneme deletion (Johnston, Anderson, &Holligan, 1996; Stahl & Murray, 1994), appear to require letter knowledge, but lower phonological awareness skills, such as syllable or trisyllable awareness, do not (Foy & Mann, 2006; Naslund & Schneider, 1996).

Levin et al (2006) showed found that although preschoolers knew letter names better than letter sounds, they learned letter sounds easier than letter names. Studies have shown that kindergarten children achieved higher scores on letter-sound than on letter-name knowledge (Tafa&Manolitsis 2008), and this was particularly obvious with lowercase letters (Tafa, 2003). Treiman(1998) has shown that as children begin to see letter names as maps of phonemic information, that is, when they begin to appreciate the name-sound relationship, their phonological representations may alter from holistic categories. Likewise, Pre-school children appear to use letter name knowledge to develop letter-sound correspondences (Treiman, Tincoff, Rodriguez, Monzaki & Francis, 1998); specific aspects of letter knowledge may be especially helpful.

The literature and studies mention above is related to the current study since the variable being investigated in the study is the sound recognition of kindergarten students.

**Online Instruction**

Online learning is defined as learning that takes place via the internet, either in a synchronous or asynchronous environment, in which students interact with professors and other students at their leisure (Singh &
Thurman, 2019). Because of its increased flexibility in terms of time, place, and speed of study, easier and more effective access to a wider range and higher quantity of knowledge, and lower financial cost, online learning has seen rapid expansion over the last decade (Chen, 2010, Khurana, 2016). Government organizations, educational institutions, and corporations throughout the world are progressively pushing online learning in this globalized digital age, resulting in a transition from traditional face-to-face classrooms to distant and online learning (Aldhafeeri& Khan, 2016).

In addition, online learning can create a rich, authentic learning ecosystem that facilitates collaboration and interdependence amongst learners, thanks to the emergence of new communication technology (Aldhafeeri& Khan, 2016). Researchers (Chen, 2010, O'Doherty et al., 2018) have expressed concerns about the quality of online learning and highlighted the primary challenges in establishing an online learning community with a high level of social presence and participation. Furthermore, some academics are concerned about the major issues associated with online learning, such as social isolation, a lack of involvement and participation, and delayed or insufficient feedback (Khurana, 2016).

Similarly, young children's digital learning has been questioned and criticized. Online hazards and dangers, video addiction, social isolation, and physical health concerns have all been raised by certain researchers (Jiang and Monk, 2015; Radesky et al., 2016). Others believe that by creating technology use laws and monitoring their children's media use, parents can play a mediating role in preventing harm and regulating their children's internet activities (Nouwen & Zaman, 2018). All of these difficulties, on the other hand, have had no impact on online learning's rapid growth in the previous decade, which has reached millions of young learners at an unprecedented rate (Silverman, 2020, Zalaznick, 2019). A growing number of online programs have been developed and distributed to support young children with impairments and/or living in rural or disadvantaged locations (Zalaznick, 2019). Furthermore, in today’s’ multimodal lifeworld,’ internet technologies have grown into social, cultural, and personal artifacts (Arnott & Yelland, 2020). As a result, it should be supported as a way for today’s children, parents, and teachers to create a multimodal learning ecosystem. While it appears that online learning will grow in popularity in the future (Franklin et al., 2015).

Methods and Materials
This section entailed the overall methods of the study that included the research design, the research participant, the data gathering procedure, the data analysis and the ethical consideration utilized in the study.

Participants and other sources of Data information.

The researcher will make use of single-subject experimental Analysis, specifically the AB experimental design. An AB design is a two-part or phase design made up of a baseline ("A") phase with no alterations and a treatment or intervention ("B") phase. The treatment is said to have had an impact if there is a change. Strong conclusions are challenging because there are numerous conflicting hypotheses that might be made. Variations on the AB design offer means to account for the opposing hypotheses to enable more conclusive results. The baseline data of selected kindergarten students on their sound recognition skills are taken from the progress report, they are then exposed to an online instruction/intervention for a month, this is then followed by another assessment on their sound recognition. Moreover, the researcher will also make use of the qualitative method, specifically the descriptive approach, this is done in a focus group discussion, wherein teachers are about the challenges and opportunities in the implementation of online instruction in improving the sound recognition skills of kindergarten students.

Data Gathering Method

In selecting the student respondents, the researcher will identify the kindergarten students with difficulties recognizing the sounds in their progress reports. In the analysis of data, the researcher will compare the progress report of kindergarten students on sound recognition and the assessment after exposure to sound recognition.
Pre-Implementation

The identification of the Kindergarten learners who had taken part in the study—kindergarten learners who struggle with sound recognition—began the pre-implementation phase of this action research. There were initially forty (40) students and twenty-seven of them were identified as having difficulties with sound recognition. The researcher then presented a plan, requested approval from the principal to carry out the research, and chose Kindergarten learners with difficulties in sound recognition. Following this, the researcher had a session with parents and distributed letters requesting parental approval to the identified learners in accordance with ethical norms. Next, the researcher plotted a timetable for a month's worth of online instructions.

During Implementation

The first step in this action research's implementation phase was to analyze the progress reports of kindergarten learners who had problems with sound recognition. Next came the distribution of consent letters to the parents, and finally the start of a four-week online sound recognition intervention.

Post Intervention

The post-intervention phase of this action research will start with an evaluation of the kindergarten learners sound recognition abilities following the four weeks of online teaching. Following that, the outcome will be compared to the progress reports from before the start of the online teaching. If after the intervention, if there are kindergarten learners who still have difficulty in sound recognition, the researcher will conduct remedial classes to these learners. The results of this action study will subsequently be shared and put on the research page of the department of education's (DepEd) website so that other teachers can use the online instruction approach to help their learners' sound recognition.

Ethical Consideration

The researcher conducts the study while adhering closely to the following ethical rule. Specifically, they are informed consent, privacy, and anonymity.

Informed Consent

The respondents are made aware that their participation in this study is entirely optional and that they are free to refuse if they feel that it would be injurious to their interests. Additionally, the respondents will be made aware that the study is only done for academic objectives and that the information collected from them will only be used for those purposes.

2. Confidentiality Pledge

The researcher guarantees the confidentiality of the information collected regarding the respondent’s personal information, and it will never be made public. The following actions will guarantee this: The names of the respondents will be replaced by codes. Moreover, the sheet containing the name of the respondents shall be removed and be kept or destroyed when no longer needed for the research. Likewise, the researcher shall have sole access to the code’s master list and the files containing research data shall be password protected and encrypted to keep the data safe.

3. Authorization to Access Private Information

Republic Act 10173, also known as the Data Privacy Act of 2012, protects the interests of the respondents or study participants; as a result, any relevant data or information of the respondents may not be accessed, transported, or copied without the approval and consent of the Regional Research Committee.

Results and Discussion

The four Tables below present the findings of the study, the first table presented the identification of learners with difficulties in sound recognition, the second table explained the sound recognition skills of the student
before undertaking the online instruction. Moreover, the third table describes the sound recognition skills of the students after undertaking the online instruction. Finally, the fourth table ascertained if there is a significant difference in the sound recognition skills before and after undertaking the online instruction.

Table 1. Identification of learners with difficulty in sound recognition

<table>
<thead>
<tr>
<th>Status of students</th>
<th>Frequency</th>
<th>percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students who are not struggling with sound recognition</td>
<td>13</td>
<td>33</td>
</tr>
<tr>
<td>Students who are struggling with sound recognition</td>
<td>27</td>
<td>67</td>
</tr>
</tbody>
</table>

The first table explained the initial pre-implementation phase of this action research wherein the learners with difficulties with sound recognition is identified. According to the table, there were thirteen (13) learners who were not struggling with sound recognition and twenty-seven (27) who are struggling with sound recognition.

The result implied that there are a lot of students who are struggling with sound recognition. Prior to moving on to more difficult language acquisition skills, notably for reading, Hayes (2016) emphasized the necessity of teaching young learners how to recognize the letters at a glance. Other sensory inputs, such as tactile, auditory, and meta cognition, are just as crucial for young learners as visual cues in assisting letter identification. These inputs were all considered in the design of this device.

Table 2 The Progress report in sound Recognition of the students before undertaking online instruction

<table>
<thead>
<tr>
<th>Sound Recognition</th>
<th>Beginners</th>
<th>Developing</th>
<th>Consistent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>frequency</td>
<td>%</td>
<td>frequency</td>
</tr>
<tr>
<td>Nakailasamgatingogsaletra (gamit ang alabetosa Mother Tongue) The child can identify the following letter sounds: /a/ /b/ /c/ /d/ /e/ /f/ /g/ /h/ /i/ /j/ /k/ /l/ /m/ /n/ /ñ/ /ng/ /o/ /p/ /q/ /r/ /s/ /t/ /u/ /v/ /w/ /x/ /y/ /z/</td>
<td>17</td>
<td>63</td>
<td>10</td>
</tr>
<tr>
<td>Nakahingalansamgadagko ug gagmayngaletra (gamit ang alabetosa Mother Tongue) Ang batanakailasapangalansamgadagko ug gagmayngletra: A B C D E F G H I J K L M N Ñ N G O P Q R S T U V W X Y Z a b c d e f g h i j k l m n ñ n g o p q r s t u v w x y z</td>
<td>18</td>
<td>66.7</td>
<td>9</td>
</tr>
<tr>
<td>Nakaparissamgadagko ug gagmayngamgaletra (gamit ang alabetosa Mother Tongue)</td>
<td>19</td>
<td>70.4</td>
<td>8</td>
</tr>
<tr>
<td>Nakailasamgapulongnganaggaray.</td>
<td>6</td>
<td>22.2</td>
<td>21</td>
</tr>
<tr>
<td>Nakaihapsamgasilabangnaglangkobsamgapulonggihatag.</td>
<td>19</td>
<td>70.4</td>
<td>8</td>
</tr>
<tr>
<td>Nakailasamgasingoryangahapnaglan.</td>
<td>22</td>
<td>81.5</td>
<td>5</td>
</tr>
<tr>
<td>Nangpakita o interes/kadasigsagapagbasinaagisagapagpaki-paklisalibro, pagtagnasakabahinsaistorya, uga pagpakitasainaktongpaggamitsalibro (Pagsunod-sunodspagpaklisamatanagpunidalibrogin saw ala padulongsatuo ug uban pa.</td>
<td>19</td>
<td>70.4</td>
<td>8</td>
</tr>
<tr>
<td>Pag sabot/paghudsaimpromsyonkabahinsadiyagramangadu naymgadatosahulagway (pictograph), mapa, ug uban pang</td>
<td>6</td>
<td>22.2</td>
<td>21</td>
</tr>
</tbody>
</table>
The table above presented the sound recognition skills of the students before undertaking the online instruction. In terms of identifying the sounds of the letter, there are seventeen (17) students classified as beginners which is sixty-three percent (63%) of the population, and another ten (10) students classified as developing, corresponding to thirty-seven percent (37%) of the population. Likewise, in the category of identifying big and small alphabet letters, there are eighteen (18) beginners, corresponding to 66.7 percent (%) of the population, and nine (9) students classified as developing, representing 33.3 percent (%) of the population. In terms of pairing the big letters and the small letters, there are nineteen (19) students classified as for beginners which is 70.4 percent (%) of the population, and eight (8) students classified as developing, corresponding to 29.6 percent (%) of the population.

Table 3 The sound Recognition of the students After undertaking online instruction

<table>
<thead>
<tr>
<th>Sound Recognition</th>
<th>Beginners</th>
<th></th>
<th>Developing</th>
<th></th>
<th>Consistent</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Nakailasamgatingogsaletra (gamit ang alpabetosa Mother</td>
<td>frequency</td>
<td>%</td>
<td>frequency</td>
<td>%</td>
<td>frequency</td>
<td>%</td>
</tr>
<tr>
<td>Tongue) The child can identify the following letter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sounds: /a/ /b/ /c/ /d/ /e/ /f/ /g/ /h/ /i/ /j/ /k/</td>
<td>11</td>
<td>40.7</td>
<td>9</td>
<td>33.3</td>
<td>7</td>
<td>25.9</td>
</tr>
<tr>
<td>/l/ /m/ /n/ /ñ/ /ng/ /o/ /p/ /q/ /r/ /s/ /t/ /u/</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>/v/ /w/ /x/ /y/ /z/ /æ/ /ɛ/ /ɪ/ /ɔ/ /ʊ/ /ʌ/ /ɪ/ /ə/</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nakahingalansamgadagko ug gagmayngaletra (gamit ang</td>
<td>8</td>
<td>29.6</td>
<td>11</td>
<td>40.7</td>
<td>8</td>
<td>29.6</td>
</tr>
<tr>
<td>alpabetosa Mother Tongue) Ang batanakailasapangalansam</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>gadagko ug gagmayngaletra: A B C D E F G H I J K L M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N N O P Q R S T U V W X Y Z a b c d e f g h i j k m</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n ñ ng o p q r s t u v w x y z</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nakaparissamgadagko ug gagmayngamaleta (gamit ang</td>
<td>9</td>
<td>33.3</td>
<td>7</td>
<td>25.9</td>
<td>11</td>
<td>40.7</td>
</tr>
<tr>
<td>alpabetosa Mother Tongue)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nakailasaunangtingogsahatangapulong.</td>
<td>5</td>
<td>18.5</td>
<td>11</td>
<td>40.7</td>
<td>11</td>
<td>40.7</td>
</tr>
<tr>
<td>Nakailasamgapulongnganaggaray.</td>
<td>6</td>
<td>22.2</td>
<td>12</td>
<td>44.4</td>
<td>9</td>
<td>33.3</td>
</tr>
<tr>
<td>Nakaihapsamgasilabangnaglangkobsamgapulongghatag.</td>
<td>5</td>
<td>18.5</td>
<td>16</td>
<td>59.3</td>
<td>6</td>
<td>22.2</td>
</tr>
</tbody>
</table>
The table above offered the sound recognition skills of the students after undertaking the online instruction. In terms of identifying the sounds of the letter, there are eleven (11) students classified as beginners which are 40.7 percent (%) of the population, another nine (9) students classified as developing, corresponding to thirty-seven percent (37%) of the population and seven (7) students classified as consistent which is 25.9 percent (%) of the population. Likewise, in the category of identifying big and small alphabet letters, there are eight (8) beginners, corresponding to 66.7 percent (%) of the population, eleven (11) students classified as developing, representing 40.7 percent (%) of the population and eight (8) students classified as consistent which is 29.6 percent (%) of the total population. In terms of pairing the big letters and the small letters, there are nine (9) students classified as beginners which are 33.3 percent (%) of the population, and seven (7) students classified as developing, corresponding to 29.6 percent (%) of the population and eleven (11) students classified as consistent which is 40.7 percent (%) of the population.

The result implied that after the use of online instruction the sound recognition skills of the students have increased. As a result of growing access to digital resources in schools, teachers have been provided options to teaching, paving the door for prospective pedagogical innovations (Hedberg, 2011). Several researches have found that technology integration has a negative impact on academic achievement and teacher instruction quality (Francisco & Barcelona, 2020).

Table 4. the difference between the Sound Recognition Skills before and after undertaking the online Instruction

<table>
<thead>
<tr>
<th>Item</th>
<th>t</th>
<th>P-Value</th>
<th>Decision</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 1 Before and after online instruction</td>
<td>-3.893</td>
<td>.001</td>
<td>Reject the null hypothesis</td>
<td>Significant difference</td>
</tr>
<tr>
<td>Item 2 Before and after online instruction</td>
<td>-2.762</td>
<td>.010</td>
<td>Reject the null hypothesis</td>
<td>Significant difference</td>
</tr>
<tr>
<td>Item 3 Before and after online instruction</td>
<td>-5.048</td>
<td>.000</td>
<td>Reject the null hypothesis</td>
<td>Significant difference</td>
</tr>
<tr>
<td>Item 4 Before and after online instruction</td>
<td>-6.750</td>
<td>.000</td>
<td>Reject the null hypothesis</td>
<td>Significant difference</td>
</tr>
<tr>
<td>Item 5 Before and after online instruction</td>
<td>-1.883</td>
<td>.071</td>
<td>Do not reject the null hypothesis</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Item 6 Before and after online instruction</td>
<td>-4.481</td>
<td>.000</td>
<td>Reject the null hypothesis</td>
<td>Significant difference</td>
</tr>
</tbody>
</table>
The table above presented the difference between the Sound Recognition Skills before and after undertaking the online Instruction. It can be seen in terms of identifying the sounds of the letter there is a significant difference before and after undertaking the online instruction as seen by the t value of -3.893 and the p-value of .001. Likewise, in the category of identifying big and small alphabet letters, there is a significant difference before and after undertaking online instruction as seen by the t value of -2.762 and P-value of .010. In addition, in the ability to pair the big letters and the small letters, there is a significant difference as yielded by the t value of -5.048 and a P-value of .000.

The findings indicated that using online education to improve students' sound detection skills was successful. Cooke et al. 2009, Harn et al. 2008; Vadas et al. 2006; Vellutino et al. 2006), children learning English as a second language (Calhoon et al. 2006; Gunn et al. 2005; Linan-Thompson et al. 2003), and remedial supplementary reading instruction to support struggling readers have all evaluated the use of supplementary reading instruction to improve reading outcomes for beginning readers considered to be (Berninger et al. 2003; Denton et al. 2006; Jitendra et al. 2004; McIntyre et al. 2005).

Table 5. What were the challenges and opportunities of teaching sound using online Instruction

<table>
<thead>
<tr>
<th>challenges and opportunities</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incorporating the use of ICTs in the lessons</td>
<td>1</td>
</tr>
<tr>
<td>Collaborating with the parents</td>
<td>2</td>
</tr>
<tr>
<td>Slow internet connection</td>
<td>3</td>
</tr>
<tr>
<td>Takes effort and time</td>
<td>4</td>
</tr>
</tbody>
</table>

The table above presented the challenges and opportunities of teaching sound using online Instruction. The first is Incorporating the use of ICTs in the lessons, teacher. Using online instruction is a chance for teachers to learn and incorporate technology into the lessons. Information and Communication Technologies (ICT), which include computer applications, mobile technology, and recording and communication systems, have become essential and highly relevant items in teaching (Friedman, 2006), and there is a widespread belief that students should learn how to use these technologies from the start of their school careers (Cuban, 2001). At the same time, these new demands on educational facilities have sparked increased interest in ICT teacher training because it allows for the acquisition of specific talents, information, and experiences for the teaching profession (Hammond, Crosson, Fragkoulī, Ingram, Johnston-Wilder, Johnston-Wilder, Kingston, Pope, & Wray, 2008). Likewise, there should be continuous support for the training of teachers in using technology and designing and monitoring online learning (Alrefaie et al., 2020).

The study also revealed that using online instruction is a chance to collaborate with parents, the teachers must constantly meet with the parents and give instructions for the online lessons. Expanding the involvement of parents in the education of their children has recently been viewed as an important strategy to advance the effectiveness and improve the quality of education (Scheerens & Bosker, 1997). Likewise, Teachers and parents are all seen as partners with their own but also shared tasks and responsibilities (McNamara et al., 2000).

In addition, a challenge for the implementation of online instruction is the slow internet connection. According to Casillano (2019), only a small percentage of students have access to the internet, making it difficult for them to use the e-learning platform. Poor pupils, according to another survey, do not own laptops or desktop.
computers and have restricted internet access (Cleofas & Rocha, 2021). Henaku (2020) identified unpredictable internet connectivity as one of the key challenges they face when practicing remote learning. The poor network is a typical issue for developing countries with inadequate telecommunications and information and communication technology (ICT). Despite the fact that there are numerous internet packages available in the country, they are "fluid" and not produced similarly in terms of speed and stability.

Lastly, another finding of the study revealed that doing online instruction takes a lot of time to be implemented and teachers should be patient in implementing this type of instruction. The first challenge that the teachers must overcome is their ability to use technology. In most classrooms, you’ll find a computer, laptop, projector, earbuds, and a few more apps or equipment. Teachers must be well-versed in the usage of technology to aid students during the teaching and learning process. Even if they did not receive formal training in technology, they must be knowledgeable individuals. Then they must be able to use some tactics for using video and other devices, as well as identify any hurdles that may arise in the classroom that may affect the students’ perceptions of learning (Hadijah, 2016).

Conclusion

The use of online training is particularly helpful in helping students improve their sound detection skills. Technology must be used by teachers, and they must be trained to use it. Similarly, the use of online instruction has allowed teachers and parents to collaborate. One of the more difficult aspects of using online training is the poor internet connection and the long time it is required to execute it.

Reference


