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The Effect of Usingmultimedia Inimprovingsome of Reading Aloud Skills Amongstudents with Learning Disabilities in Najran Area at Saudi Arabia

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ABSTRACT:*The study aimed at investigatethe effectof usingmultimedia in improving some of Reading Aloud Skills (Correct Articulation Skills, Word RecognitionSkills, and Reading Fluency Skills) of elementarystudents with learning disabilities (SLD)in Najran area at Saudi Arabia. The sample of the study consisted of (12) SLDfrom first and second grade; it was divided randomly into two equal groups: control and experimental. The students in the experimental group have studied the reading aloud skills by using multimedia; however, the students in the control group were received their teaching by the conventional method. The Reading Aloud Skills Test: was applied for two groups as pre-test and post-test. Results showed that there are statistically significant differences on the all domains of post- The Reading Aloud Skills Test due to the variable of group, in favor of SLD in the experimental group.*

KEYWORDS:*multimedia;reading aloud skills; Students with Learning Disability.*

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I INTRODUCTION

Schools at all levels of education continue to rely on methods of indoctrination, conservation, and consider teacher and curriculum are the only source of knowledge and information, this contrasts fundamentally with the information and technology revolution.

In recent years, technology has started to have a presence in classrooms and plays an important role in pedagogy. When teachers use it in their classrooms, in fact, they want to attract the students' attention, so that they can enhance effective ways of learning, especially with SLD.

Technology is not a strategy in and of itself; rather, it is an adaptable and powerful tool for providing appropriate personalized learning activities and adaptations. Technology can enhance student independence and self-reliance with reading and writing tasks and provide valuable opportunities to practice skills specifically tailored to a student's instructional level. (Ministry of Education and British Columbia School Superintendent's Association, 2011).

Balmeo et al study (2014) indicated that the technology integration appears to be an effective method in teaching students with special needs and the lack of appropriate technology training in pre-service and in-service teacher education programs is the most cited barrier in using technology in the classroom. They further added that the lack of adequate training has an especial strong impact on students with disabilities because technology is often a critical component in planning and implementing an educational program for them.

According to Al Neyadi, study (2009) recommended the necessity of benefiting from Information technology by teachers and employing this technology in the educational process especially software production and The ministry of education should conduct training courses for Arabic teachers on using and producing instructional software. Modern education and communication environments can offer alternative ways in the learning process, with the fast development and wide use of the latest technologies, multimedia has become very important technique used in teaching process.

Multimedia gives students access to various technologies to develop and present inquiry projects, and to incorporate media from scanned texts, pictures, videos, and Internet sites. Computer software programs such as Microsoft PowerPoint enable the student to integrate such design elements as text, background, graphics, video, sound, and animation. Inquiry projects using multimedia encourage students to be active problem solvers and determine ways to best represent their ideas (Lehrer, et al, 1994).

Multimedia has been widely used in educational technologies. It is also expected that the future will see more utilization of such tools in education. Some argue that multimedia and eLearning tools should be used as a supplement to traditional classes (and not as a replacement). Using interactive multimedia in the teaching process is a growing phenomenon. It plays a very important role in assisting students in learning processes. Therefore, it can be concluded that multimedia enhances and enables students to learn in a more effective

way.(Nusir, et al 2013)

Multimedia can appeal to many types of learning preferences - some students profit more from learning by reading, some by hearing and some by watching, etc. In addition, the use of multimedia allows for different ways of working - students can decide on their own how to explore the materials as well as how to use interactive and collaborative tools. Moreover, students can adjust their own learning processes according to their abilities and preferences. They can work according to their interests, repeat material as much as they want reducing embarrassment concerning their learning outcomesthe use of multimedia can thus be tailored to the students' differences in interests, social and cultural backgrounds, learning preferences and rates, etc. Individual learning can promote active, self-directed learning. In addition, multimedia applications can be used to facilitate group work. Small groups of students can work through multimedia applications together - in order to learn from each other as well as to improve their dialogue skills. The interactive opportunities of multimedia lead to high flexibility, which can be very helpful for students with special needs. (Andresen, & Brink, 2013)

A major feature of multimedia teaching is to train and improve study ability to listen and speak, and to develop their communicative competence, during this process, the teacher's role, as a facilitator is particularly prominent. Using multimedia in context creation creates a good platform for the exchange between teachers and students, while at the same time providing a language environment that improves on the traditional classroom-teaching model. In this way, teachers in the classroom no longer blindly input information and force students to receive it in a passive way. (Patel, 2013)

Rivera et al (2017) finding that iPads can be used as a way to promote both academic and functional skills. Understanding how to use iPads and other mobile devices as a means to promote academic skills is increasingly important considering that special education teachers must teach grade level standards.On the other hand, Students identified with a learning disability (LD) are growing in number and nearly 80% of these students have a primary disability in reading. Generally, students with RD have deficits in phonemic awareness and analysis, word identification, reading fluency, and comprehension. Reading assistive technology with a speech component presents a bimodal (auditory and visual) approach to instruction that supports students in each of these areas.Elder-Hinshaw et al (2006)

However,Reading aloud to children can be a very powerful way to increase their vocabulary, listening comprehension, syntactic development, and word recognition skills. (*Lane, & Wright,*2007)

Although current technological tools have countless applications and free online resources in the Integrating Multimedia, such applications and approaches are yet to be introduced in the teaching and learning of Arabic language, especially reading aloud skills. The current practice is still the traditional text-centered, memorization approach.

In the study described, the use of Multimedia have been investigated in Saudi Arabian Primary boys' school. Thus, this study may provide valuable views and ideas for Arabic language teachers and educators about the use of Multimedia -supported instruction and may inspire them to apply this sort of instruction in their classrooms for SLD. In this sense, the problem of the study arises in the following question:

What is the effect of using Multimedia in improving of reading aloud skills among SLD in the Kingdom of Saudi Arabia.?

II NULL HYPOTHESIS

The hypotheses that were tested at 0.05 level of significance are:

(1) There are no statistically significant differences between the mean ranks of experimental and control groups on the pre- The Reading Aloud Skills Test.

(2) There are no statistically significant differences between the mean ranks of experimental and control groups on the post- The Reading Aloud Skills Test.

III MATERIALS AND METHODS

- **Research Design**

This study was based on the quasi-experimental method to test the effect of using Multimedia (independent variable) in improving reading aloud skills (dependent variable) among SLD in Najran primary Schools, Saudi Arabia.

- **Participants**

The participants of this study were selected from primary schools in Najran, Saudi Arabia. (12)SLDfrom first and Second year students were the participants of this study. They were all boys aged 6-8. The participants were divided randomly into two equal groups control (n=6) and experimental (n=6).

- **Instruments**

This study included the following instruments:

1. The Reading Aloud Skills Test**:**

(1) In order to develop the test, the researcher reviewed the previous studies (*Al Ali, 2015*; *Malkway*, et al,2015; *Ali, & AL-Harbi, 2015).*

The test consists of three main skills with ten sub-skills. The first draft of the test contained of (8) questions, (70) items, which divided into three domains related to, Correct Articulation skills,contained of (21)items,Word Recognition Skills,contained of (21) items, and Reading Fluency Skills,contained of (28) items. However, the test was reviewed by (5) experts in the field of special education, curriculum and instruction, and psychology from Najran University, and (2) teachers of Arabic language in Najran primary schools.However, the final draft of the test consists of (7) questions, (50) items, which divided into three domains related to Correct Articulation Skills,contained of (15) items, Word Recognition Skills,contained of(15) items, and Reading Fluency Skills,contained of(20) items. Thus, each correct answer takes (1) mark, and (0) mark to the wrong answer. In order to identify the reliability of the test; the researcher was applied the test on a pilot study that consisted of (20) SLD. The reliability coefficient of the test was (0.88) by using Kuder-Richardson Formula (KR-20).

Multimedia Software:2.

2.1) CUTE CUTAPPLICATION - Completely different movie maker for iPhone, iPad, Mac and Android devices - video editing, drawing, capture, sharing, full-featured video editor (see, Appendix A)

User-Friendly UI

-Cute CUT provides intuitive bookshelf like Movies UI, which helps you manage your movies easily. All movies arranged by date. The latest ones are on the top shelf.

-Cute CUT is designed for Multi-Touch. Just drag and drop, you can assemble your media segments easily. One movie consists of several types of Tracks, and one Track can contain several Segments. All of these elementsare clearly arranged in the interface.

Make Different Movie

-Cute CUT supports adding 6 types of media into movie. They are video (album/camera), photo(album/camera), self-draw, text, music and voice.

-Cute CUT provides more customizable utilities than any other movie makers on iPhone/iPad. So you can make out your own unique movie that is much different with others. You can draw directly on the movie. Cute CUT gives you 30+ tools to draw. And 3 advanced brushes help you create professional effects (texture, linear

gradient and radial gradient).

-Highly customizable transitions can be applied to Segments to let you movie making more exciting. Making interesting movies is very simple. Transparency, Border, Corner, Shadow, Rotation, Scale and Sound Volume...All Customizable.

- Cute CUT supports making HD (16:9) and SD (4:3) movie. You can also make Portrait and Landscape mode movie.

Share The Movie

-You can export your movie to Camera Roll or send it to your friends by E-mail. You also can publish it to YouTube, Facebook. All can be accomplished in Cute CUT app.

Teachers may use free the program Cute CUT available from the available on the Internet .(See: http://www.mobivio.com/cutecut/help/ipad/index.html)

2.2**The PowerPoint presentations: (**see, Appendix B)

PowerPoint is one of Microsoft's most used software packages. It is a representation of information that allows one to communicate the information effectively to the audience. It also allows one to show the information through various colored text, graphics, sounds, videos and animations.

PowerPoint presentations activities was constructed for SLDin grade second to improve reading aloud skills (Correct Articulation Skills, Word Recognition Skills, and Reading Fluency Skills) to develop letter-sound correspondence. it was used the animation features to control the appearance of each letter in a word so that it is isolated, and can be linked with the sound that corresponds to it. For example, clicked on the mouse bringing up the letter 'D' on the screen. it was model the sound that corresponds to the letter, and asked the students to repeat the sound, making a direct connection between the letter and sound. Furthermore, PowerPoint presentations helped students learn about the blending of sounds and how letters connect with sounds in various words.

- **Procedures**

This study follows these procedures:

- The sample of study consisted of (12) SLD from the primary schools.
- The sample were divided randomly into two equal groups, control (n=6) and experimental (n=6).
- The students in the experimental group have studied reading aloud skills (Correct Articulation Skills, Word Recognition Skills, and Reading Fluency Skills) by using Multimedia; however, the students in the control group were received their teaching by the conventional method.
- The Reading Aloud Skills Test was developed and applied for the two groups as pretest and posttest.
- The test was designed to be applied individually in some items and collectively in other items. The Reading Aloud Skills Test consisted of (7) questions, (50) items, which divided into three domains related to Correct Articulation Skills, contained of (15) items, Word Recognition Skills, contained of (15) items, and Reading Fluency Skills, contained of (20) items.
- The Multimedia Software**(**Cute cutapplication, PowerPoint presentations activities) with the, reading aloud skillssessions was developed which consisted of (22) sessions related to reading aloud skills in terms of one of its parts, Correct Articulation Skills, Word Recognition Skills, and Reading Fluency Skills.
  "Note: The researcher asked a Saudi person to record the sound in the Saudi dialect so that the students understand that the dialect of the researcher is Egyptian"
- The researcher trained Arabic language teacher on the application procedures of Multimedia (Cute cut application, and PowerPoint presentations) with the reading aloud skillssessions on the experimental group members. The duration of training was (7) week and day, (3) sessions in per week. (3) days in week and (45) minutes every day.
- During the training process, reading aloud skills teacher provided with information about Multimedia (Cute cut application, and PowerPoint presentations), its significance, the role of teacher and students, and the difference betweenMultimedia and the conventional method of teaching. In addition, reading aloud skills teacher has been trained on how to teach reading aloud skills by using Multimedia.

IV RESULTS

Table 1: Mann-Whitney results according to pre-The Reading Aloud Skills Test

Dimension	Group	N	Mean Rank	Sum of Ranks	Z	Sig.
Correct Articulation Skills	Control	6	6.33	38.00	-.167	.937
	Experimental	6	6.67	40.00		
Word Recognition Skills	Control	6	6.75	40.50	-.249	.818
	Experimental	6	6.25	37.50		
Reading Fluency Skills	Control	6	7.00	42.00	-.506	.699
	Experimental	6	6.00	36.00		
Score Total	Control	6	6.58	39.50	-.082	.937
	Experimental	6	6.42	38.50		

Results related to the first hypothesis: "There are no statistically significant differences between the mean rank of experimental and control groups on the pre-The Reading Aloud Skills Test "? For this question Mann-Whitney test was used as shown in Table 1. :

Table 1 demonstrates that there are no statistically significant differences between the mean rank of experimental and control groups on The Reading Aloud Skills Test. These results showed that the two groups are equivalence on the pretest.

Table 2: Mann-Whitney results according to post-The Reading Aloud Skills Test

Dimension	Group	N	Mean Rank	Sum of Ranks	Z	Sig.
Correct Articulation Skills	Control	6	3.67	22.00	-2.866	.004
	Experimental	6	9.33	56.00		
Word Recognition Skills	Control	6	3.83	23.00	-2.677	.009
	Experimental	6	9.17	55.00		
Reading Fluency Skills	Control	6	3.50	21.00	-3.017	.002
	Experimental	6	9.50	57.00		
Score Total	Control	6	3.50	21.00	-2.918	.002
	Experimental	6	9.50	57.00		

Results related to the second hypothesis: "There are no statistically significant differences between the mean rank of experimental and control groups on the post-The Reading Aloud Skills Test"? For this question Mann-Whitney test was used as shown in Table 2.

Table 2 shows that there are statistically significant differences on the all domains of post-The Reading Aloud Skills Test
due to the variable of group, in favor of SLD in the experimental group.
Statistical significance means that a result may not be the cause of random variations within the data. However, not every significant result refers to an effect with a high impact; it may even describe a phenomenon that is not really perceivable in everyday life. Statistical significance mainly depends on the sample size, the quality of the data and the power of the statistical procedures. In order to describe, if effects have a relevant magnitude, effect sizes are used to describe the strength of a phenomenon. The most popular effect size measure surely is Cohen's d (Cohen, 1988).

To investigate further the Effect Size (ES) of multimedia to the experimental group members after applying the post-test for The Reading Aloud Skills Testin the score total of the test, the following formula $r = z/\sqrt{N}$ (r: effect size; z: z value; N: Observation number), which is used to detect the statistical differences in the Mann-Whitney's U test. It was shown by using an equation that the magnitude of the ES was (-0.84) and the level of effect is significant. Indicating that multimedia has a significant on enhancing the read aloud skills in the first and second grade SLD at primary schools in Najran, Saudi Arabia. Cohen (1988) confirmed that the impact size index is small with a value of 0.20 and below, and an average if its value ranged from 0.21 to 0.80, and large if its value is greater than 0.80.

VI. DISCUSSION

In this study, multimedia' effect were examined for reading aloud skills in the one and second gradeSLD at primary schools. This indicates that the multimedia' helped the SLD to understand the sessionsof reading

aloud skills recall the information and increase academic achievement in the experimental group. Also during the multimedia, the chances of interactions with the students are high. The teacher consumes less time in delivering the same material when compared to traditional method. Therefore, the students have more time to interact with teacher, and self-learning through iPhone, iPad, Mac, Android devices, and computer or laptop because all students were had cute cut application and PowerPoint presentations. The data in Table 2 indicate that students exposed to multimedia' achieved better in reading aloud skills in all dimensions than those in control group. This supports the earlier findings by Elder-Hinshaw et al (2006) indicated that pairing reading assistance software with a multimedia project has the potential to allow students with RD to fully engage in inquiry activities and apply reading comprehension strategies. Furthermore, the motivational aspect of the projects, along with the accessibility and presentation flexibility that the technologies provide. Flexibility of representation is demonstrated in the use of multimedia; the PowerPoint presentations allow students an option of expression of knowledge; and the increase in motivation influences the engagement of the student in the learning process.The results of Boon et al (2007), suggested that technology, as a component of the instructional process has been beneficial; improving and enhancing academic achievement, engagement, motivation, and study skills for both students with and without disabilities

Therefore, there was a significant difference in The Reading Aloud Skills Test scores of students trained in multimedia than those that were not trained, students who trained in multimedia indicated that multimedia increases interaction between them and their teacher, and preferred animation and sound congruent with the slide contents, Students also expressed a preference of dim the lights while giving sessions with multimedia,students was more attentions and interested to have slides with pictures, and decorative background. The findings are also in line with that of Caldrone, et al (1995), indicated that the use of hypermedia technology in kindergarten, second and fifth-grade classrooms. Post intervention data indicate an increase in students' comprehension, study skills, decoding, and vocabulary.

VII. CONCLUSION

Multimedia is extensively used in many sectors, but it is not so effectively propagated to academic sectors, especially to the primary schools in Saudi Arabia. This is a result of the need for hardware to run the technology, which currently does not exist in most of the classrooms of the primary Saudi Arabian school. Through this study, in one of the boys' primary Saudi Arabian school to examine how multimedia can effectively enhance reading aloud skills among SLD.

In light of the study results, given that multimedia is very effective in enhance the reading aloud skills among SLD, it should be incorporated in the teacher education programs to prepare the prospective teachers, who may teach the low achieving students as well as the students with disabilities. The researcher recommended organizing training workshops for special and general education teachers on the application of multimedia, and curriculum planners should plan the school and class activities to be more student-centered. This will help the students, especially those SLD, to achieve better academically. It will also help the students to develop confidence in their abilities to handle any learning task or problem they meet.Read aloud skills activities should be integrated throughout the curriculum through activities, and multimedia. Further extensive work can be carried out of multimedia in primary schools for more subjects among SLD.

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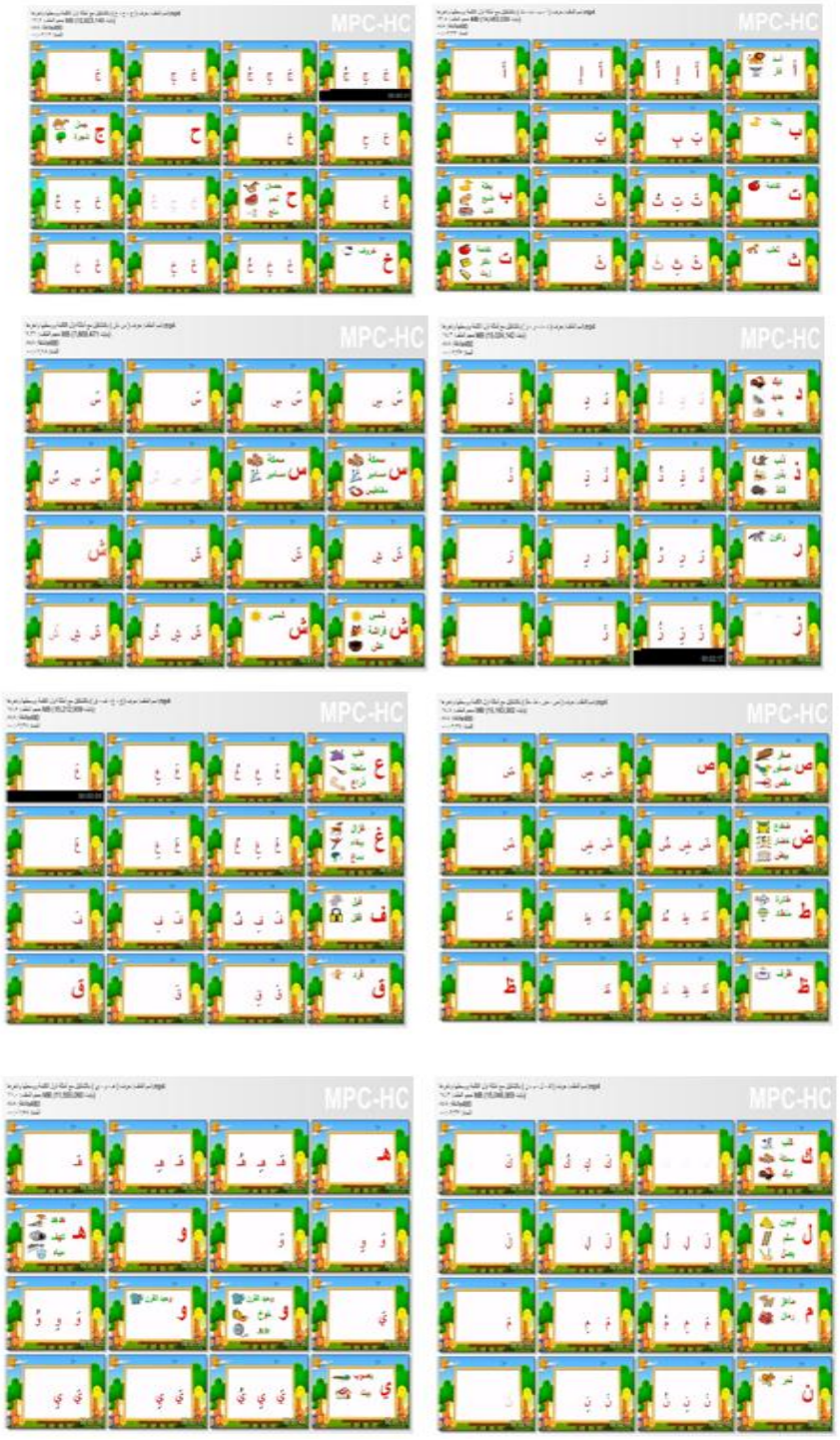
Appendix A

CUTE CUT APPLICATION - Completely different movie maker for iPhone, iPad, Mac and Android devices - video editing, drawing, capture, sharing, full-featured video editor



Appendix B

SOME OF SLIDES FROM POWERPOINT PRESENTIONS INREADING ALOUD SKILLS

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