
EFFECTS OF MULTIMEDIA RESOURCES IN THE LIFE SKILLS OF CHILDREN WITH INTELLECTUAL DISABILITY: BASIS FOR LEARNING MANAGEMENT SYSTEM

Raniel R. Billones

Department of Education-Rizal, Philippines

Abstract

The purpose of this study was to determine how multimedia resources affected the life skills of learners with intellectual disabilities. The investigation was carried out in Taytay, Rizal's Rosario Ocampo Elementary School during the academic year 2022–2023. Twenty-five students with intellectual disabilities served as the study's subjects. This study utilized a descriptive research design and a performance rating scale created by the researcher to determine how multimedia resources affected the life skills. The researcher employed purposive sampling to choose the study's participants. The performance rating scale was created by the researcher and is made up of many tasks that were carried out during the investigation. Communication skills, health and personal safety skills, mobility and community orientation skills, practical financial literacy, leisure and recreational skills, a good sense of oneself, an understanding of human sexuality, and moral development are all included. The statistical techniques employed to resolve issues in line with the study were the weighted mean, standard deviation, and dependent t-test. According to the results of the pre-test and post-test, the study found that exposure to multimedia resources significantly improved the life skills of children with intellectual disabilities.

Keywords: Multimedia; Intellectual Disabilities; Life Skills; Special Education; Learning

Introduction

Through education, every individual around the world will be able to receive enough information to improve their lifestyle. It may also help them extent their knowledge, discover new things and make a great contribution to their respected community or society as well. Furthermore, education is defined as any act or event that has a formative influence on an individual's intellect, character, or physical ability. In its most technical meaning, education is the purposeful transmission of acquired information, skills, and values through one generation to the following one.

Sad to say, the children with disability in many countries especially in the developing countries, like the Philippines, are isolated and deprived of giving an appropriate and quality education but we all know that education is a basic right of every Filipino child. Giving them special education program is a guarantee for all kinds of children regardless of their differences.

Individually designed, methodically administered, and thoroughly reviewed teaching to assist special children in achieving the maximum potential personal self-sufficiency and achievement in current and future situations is referred to as special education. It may assist exceptional youngsters in expanding their knowledge and developing their talents so that they might minimize their limitations by learning things on their own.

According to the Philippine Republic Act No. 7277, The Magna Carta for Disabled Persons enacted in July 1991 and approved in 1995 emphasizes the right of disabled persons including children with intellectual disability for relevant quality education for the full development of themselves, become an effective and useful member of the family and the society as a whole. In addition, quality education that would provide appropriate learning activities and experiences that are suitable to the needs and interest of children with intellectual disability make the teaching and learning meaningful and effective.

Intellectual Disability refers to the substantial limitations in present functioning. It is characterized by significantly sub-average intellectual functioning, existing concurrently with related limitations in two or more of the following

adaptive skills area: communication, self-care, home-living, social skills, community use, self-direction, help and safety, functional academics, leisure and work.

Today, adjectives like "social" and "challenged" are gradually replacing the label "retarded." The phrase intellectual disability or developmental delays is quickly gaining acceptance among caregivers and parents of mentally retarded individuals. Many people prefer the term delay over disability because it encapsulates the basic deficiency that an individual has been kept from fulfilling achieving their full potential, instead of somebody who has become handicapped.

Intellectual disability is characterized by significant limits in suitable for your age intellectual and adaptive behaviors. Although many people with intellectual impairments make considerable progress in adaptive abilities (some reaching the extent of surviving on their own and no longer being classified as disabled), the majority are impacted throughout their lives.

In case of children with special needs, where their understanding and learning are limited by their disabilities, the role of the teacher is clearly realized as an extra-ordinary job that requires more patience, effort, commitment, love, compassion, and other important traits that would help them guide these children to learn. Understanding individual differences is practiced with normal pupils but it needs more for children with disabilities where in their behaviors, attitudes and abilities that are affected by their disabilities are prime factors to consider in the learning process.

Today, educational technologists commonly hear and debate the word "multimedia." Unless precisely defined, the phrase can refer to a wise combination of diverse forms of media like print, audio, and video, or it can refer to the mass production of computer-based software as well as hardware packages that allow for customized usage and learning. In essence, multimedia combines various levels of instruction into one instructional instrument that allows for curriculum presentation variation. It is a thrilling mix of computer hardware and software that enables you to bring together video, animation, audio, visuals, and testing tools to create outstanding presentations on a low-cost desktop computer.

There are several benefits to incorporating multimedia into the classroom. Students can learn real-world skills concerning daily living and technology through participation in multimedia activities, as well as the effect and significance of different media in instruction, engaging students' attention, addressing different types of learning in the classroom, implementing student lifelong centered learning, raising the level of awareness through advanced thinking abilities, improving traditional audio-visual presentations, and allowing students to expound.

There are some reasons to implement multimedia into the classroom. The first reason is engaging the motivation of the learners. We can use multimedia to make our classes more interesting and to keep our students' attention. The second reason is because it enables us to distinguish our lesson. Teachers can satisfy the requirements of all pupils through presenting knowledge in a variety of ways. The third argument is the reality that multimedia is an excellent tool to keep our courses structured. There are several tools available to assist us structure our presentation and make it easier to grasp. The fourth reason is because i expose our pupils to real-world situations. Our pupils will be obliged to utilize multimedia in their careers one day, and we are getting ready them for this by introducing them to it at a young age. The final argument is that using multimedia can improve ideas that are not as interesting as other people.

There are some benefits can a teacher get from using the multimedia materials. This is more effective for instruction and has better response from the students. It is also a lifelong instructional material in teaching. It also improves and enhances the performance of the skills not only the students but also the teacher. The teacher has time in teaching than doing traditional instructional materials.

There are some constraints using multimedia in the classroom. It includes the technological resources (both hardware and software), technological skills (both the students and teacher) and time required to plan, design, develop and evaluate multimedia activities.

According to Republic Act 8370, known as "Children's Television Act of 1997" in the Article VIII, Section 2 emphasizes the responsibility of the government in monitoring and screening educational program that may help children especially children with intellectual disabilities to achieve their needs, moral values, and attitudes without sacrificing the interest of a child.

This study was carried out by the researcher to determine whether multimedia resources are suitable for teaching life skills to learners with intellectual disabilities. The learners of today's generation are exposed to technology, which is at the heart of instruction. Learners with intellectual disabilities were chosen for the study because they are tech-savvy, active, and in need of support for greater learning. The information that the researcher will learn from this study will be extremely useful to them as Special Education teacher. Based on the study's findings and recommendations, the researcher advised: Using multimedia resources as an elaboration in teaching the lesson which enabled them to accomplish the of better performance of the student's life skills. Multimedia resources have a major impact on the achievement of the life skills of children with intellectual disabilities.

Richard Mayer's Cognitive Theory of Multimedia Learning served as the foundation for this investigation. It is based on the notion that the structure of e-learning courses must take into account how the mind learns as well as scientific data about e-learning characteristics that encourage the best learning. According to the Cognitive Theory of Multimedia Learning, words and images supplied to the learner through a multimedia presentation are processed in two different, non-conflicting channels. They enter sensory memory via the ears and the eyes.

This theory led to the explanations on how people learn from multimedia materials. Multimedia is a combination of text, audio, images, video and animation. We say that children learn more by experience. It focuses on the idea that learners attempt to build meaningful learning through audio, words and pictures. Multimedia instructions encourage the learners to build mental representation from the presented material.

As a result, Mayer's distinct working memory channels handle auditory and visual information. As a result, studying materials that mix auditory verbal information with visually graphic data requires greater cognitive processing capacity than studying materials that combine written text with visual graphical information. To put it another way, multimodal media lessen the cognitive strain placed on working memory.

Edward Thorndike is well-known in psychology for his contributions to learning theory, which resulted in the creation of operant conditioning as a discipline within behaviorism. Whereas classical conditioning is based on the formation of connections between events, operant conditioning on the other hand is based on learning from the consequences of our actions. BF Skinner was not the first psychologist to investigate learning through consequences. Indeed, Skinner's operant conditioning theory is based on the concepts of Edward Thorndike. He proposed a "Law of Effect" in his experimental research, which said that any activity that is followed by beneficial outcomes is likely to be reiterated and any behavior that is accompanied by painful consequences is probably to be discontinued.

The main goal of the study was determining the effects of multimedia materials in the life skills of children with intellectual disability. Specifically, it sought answers to the following problems:

1. What is the effect of multimedia resources in the life skills of children with Intellectual Disability as revealed on the pre-test and posttest in terms of:
 - 1.1 Communication skills;
 - 1.2 health and personal safety skills;
 - 1.3 mobility and community orientation skills;
 - 1.4 practical financial literacy;
 - 1.5 leisure and recreational skills;
 - 1.6 positive self-concept;
 - 1.7 an understanding of human sexuality; and
 - 1.8 moral development?
2. How do the multimedia materials affect the performance in the life skills of children with intellectual disability as revealed on the pretest and posttest in terms of the above-mentioned variables?

Materials and Methods

The purpose of this study was to determine how multimedia resources affected the life skills of learners with intellectual disabilities. The investigation was carried out in Taytay, Rizal's Rosario Ocampo Elementary School during the academic year 2022–2023. Twenty-five students with intellectual disabilities served as the study's subjects. This study utilized a descriptive research design and a performance rating scale created by the researcher to determine

how multimedia resources affected the life skills of learners with intellectual disabilities. Because there are some students in the class who are not learners who have intellectual disabilities, the researcher employed purposive sampling to choose the study's participants.

In relation to the present study, the researcher used descriptive design for the purposes of knowing the effects of multimedia in children with Intellectual Disability and for gathering and collecting data to serve as evidence in this study. The performance rating scale was created by the researcher and is made up of many tasks that were carried out during the investigation. The researchers used descriptive design to find out if the exposure to multimedia technologies can improve the learning process of the students, as well as their performance, and to know if these materials are appropriate in teaching life skills to those children with Intellectual Disability.

The study used researcher-made performance rating scale as the main instrument in determining the effects of multimedia resources in the life skills of children with Intellectual Disability. The researcher-made performance rating scale composed of series of activities that were done to conduct the study. It consists of pretest and post-test of patty and rug making.

Scale	Interpretation
2.34 – 3.00	Can do
1.67 – 2.33	Can do with assistance
1.00 – 1.66	Cannot do

The educators who are knowledgeable on this topic validated the content of the performance rating scale. The researcher made use of the secondary sources like books, unpublished thesis and other materials related to the study. Communication skills, health and personal safety skills, mobility and community orientation skills, practical financial literacy, leisure and recreational skills, a good sense of oneself, an understanding of human sexuality, and moral development are all included.

The researcher underwent several steps in conducting the study. First, the researcher selected and decided the researchable title. Then, collected various information from different sources, related literature and studies.

The researcher-made performance rating scale was presented to the experts for content validation. After the validation of the rating scale, the researcher answers the rating scale and gave the pretest to the students to know the skills of the children. After that, they presented instructional multimedia resources in Rosario Ocampo Elementary School to meet the student's needs. After teaching, the students performed the post-test to know if the knowledge retained on their minds using another rating scale. Finally, after getting the result of their data, the researchers proceed to the paper. After that, the researcher create a learning management system that will help students for better learning of life skills.

To attain an accurate result of the specific question in the statement of the problem, the following statistical treatment was used:

1. To determine the effects of multimedia materials in the life skills of children with Intellectual Disability as revealed on pretest and post-test in terms of communication skills, health and personal safety skills, mobility and community orientation skills, practical financial literacy, leisure and recreational skills, a good sense of oneself, an understanding of human sexuality, and moral development; mean and standard deviation were used.
2. To determine how the multimedia references affect the performance in the life skills of children with Intellectual Disability as revealed on the pretest and post-test in terms of Communication skills, health and personal safety skills, mobility and community orientation skills, practical financial literacy, leisure and recreational skills, a good sense of oneself, an understanding of human sexuality, and moral development, dependent t-test was used.

Results and Discussions

Table 1 presents the computed mean and standard deviation on the effects of multimedia resources in the life skills of children with Intellectual Disability as revealed on the pretest and post-test in each item in terms of communication skills.

Communication Skills	Item	Pretest			Post-test		
		Mean	VI	SD	Mean	VI	SD
1. Oral Communication	3	2.67	Can do	0.49	2.67	Can do	0.49
2. Listening	3	2.00	Can do with assistance	0	2.58	Can do	0.51
3. Responding technique	3	2.00	Can do with assistance	0	2.67	Can do	0.49
4. Negative Effects of Responding and listening	3	2.08	Can do with assistance	0.67	2.58	Can do	0.51
5. Spoken direction	3	1.92	Can do with assistance	0.29	2.17	Can do with assistance	0.39
6. Reading simple words	3	2.67	Can do	0.49	2.92	Can do	0.29
7. Interpretation and usage of words	3	2.08	Can do with assistance	0.29	2.58	Can do	0.51
8. Following simple directions	3	2.83	Can do	0.39	3.00	Can do	0
9. Writing personal information	3	2.83	Can do	0.39	3.00	Can do	0
10. Writing simple notes	3	2.17	Can do with assistance	0.39	2.83	Can do	0.39
General	3	2.33	Can do with assistance		2.70	Can do	

The pretest obtained the general mean of 2.33 verbally interpreted as Can Do with Assistance and the post-test on the other hand obtained the general mean of 2.70 with the verbal interpretation of Can Do in all competencies.

Abraham (2007) formulates that using and generating annotations with spoken and written text and visual information, the World Wide Web and developing multimedia devices and software give students unheard-of opportunity to understand real texts while picking up new language. The current study looks at how vocabulary learning and understanding of a real literary work are affected by visual and verbal glosses/annotations. The following groups were used to randomly assign participants: control (no access to glosses), choice-lookup (having access to spoken and visual interpretations), and forced-lookup (required to reference all oral and visual interpretations available). In comparison to the control group, the option and forced-lookup categories greatly outperformed them on the test of vocabulary and conclusion.

Table 2 presents the computed mean and standard deviation on the effects of multimedia resources in the life skills of children with Intellectual Disability as revealed on the pretest and post-test in each item in terms of health and personal safety.

Health and Personal Safety	Item	Pretest			Post-test		
		Mean	VI	SD	Mean	VI	SD
1. Healthy and Non-healthy foods	3	2.42	Can do	0.54	3.00	Can do	0
2. Personal Safety	3	2.75	Can do	0.45	3.00	Can do	0
3. Community health workers	3	2.08	Can do with assistance	0.45	2.83	Can do	0.39
4. Kinds of medicines	3	2.00	Can do with assistance	0	2.83	Can do	0.39
5. First Aid	3	2.58	Can do	0.51	2.92	Can do	0.29
6. Prescription and Non-prescription medicine	3	2.67	Can do	0.49	2.83	Can do	0.39

7. Reading information labels	3	2.08	Can do with assistance	0.29	2.58	Can do	0.51
General	3	2.37	Can do		2.86	Can do	

The pretest obtained the general mean of 2.37 verbally interpreted as Can Do and the post-test on the other hand obtained the general mean of 2.86 with the verbal interpretation of Can Do in all competencies.

The paper of Roschelle, Pea, Hoadley, Gordin, & Means, (2000) discusses the different applications of computer technology to enhance classroom instruction and student learning. In order to demonstrate how technology can improve how children learn, a number of instances of applications that use computers are highlighted. These examples support the four key elements of learning: active engagement, group participation, frequent interaction and comments, and relationships to actual-life situations. By assisting children in understanding fundamental ideas in topics like arithmetic, science, and literacy, further examples further demonstrate how technology may enhance what kids learn. However, studies show that integrating technology into the wider educational reform initiative that enhances teacher preparation, curriculum, and evaluations of pupils increases the likelihood that it will be used as a useful learning tool. Table 3 presents the computed mean and standard deviation on the effects of multimedia resources in the life skills of children with Intellectual Disability as revealed on the pretest and post-test in each item in terms of community orientation and mobility skills.

Community Orientation and Mobility Skills	Item	Pretest			Post-test		
		Mean	VI	SD	Mean	VI	SD
1. House number and neighborhood	3	2.17	Can do with assistance	0.49	3.00	Can do	0
2. Signs found in the community	3	2.00	Can do with assistance	0	2.58	Can do	0.51
3. Four directions in the community	3	2.42	Can do	0	2.67	Can do	0.49
4. Transportation Available	3	2.08	Can do with assistance	0.67	2.58	Can do	0.51
5. Landmarks	3	2.42	Can do	0.29	2.17	Can do with assistance	0.39
6. Rules and safety procedure	3	2.67	Can do	0.49	2.92	Can do	0.29
7. Different government offices	3	2.08	Can do with assistance	0.29	2.58	Can do	0.51
8. Basic Resources in the community	3	2.42	Can do	0.39	3.00	Can do	0
9. Safety precautions in the community	3	2.17	Can do with assistance	0.39	2.83	Can do	0.39
General	3	2.27	Can do with assistance		2.70	Can do	

The pretest obtained the general mean of 2.27 verbally interpreted as Can Do with Assistance and the post-test on the other hand obtained the general mean of 2.70 with the verbal interpretation of Can Do in all competencies.

Velleman & Moore (1996) explores the potential and potential problems of using multimedia technologies to teach statistics. We make some recommendations for the creation and application of multimedia as well as our thoughts on the function of live educators in a multimedia learning environment.

Table 4 presents the computed mean and standard deviation on the effects of multimedia resources in the life skills of children with Intellectual Disability as revealed on the pretest and post-test in each item in terms of financial literacy.

Financial Literacy	Item	Pretest			Post-test		
		Mean	VI	SD	Mean	VI	SD
1. Coins	3	2.08	Can do with assistance	0.49	2.83	Can do	0.39
2. Bank notes	3	2.42	Can do	0	2.58	Can do	0.51
3. Spending money	3	2.17	Can do with assistance	0	2.67	Can do	0.49
4. Receiving money	3	2.08	Can do with assistance	0.67	2.58	Can do	0.51
5. Personal expenses	3	1.92	Can do with assistance	0.29	2.42	Can do	0.39
6. Simple bank transactions	3	2.67	Can do	0.49	2.92	Can do	0.29
General	3	2.22	Can do with assistance		2.67	Can do	

The pretest obtained the general mean of 2.22 verbally interpreted as Can Do with Assistance and the post-test on the other hand obtained the general mean of 2.67 with the verbal interpretation of Can Do in all competencies.

The educational value of supplemental media presentations is shown by this study. Eleven descriptive geometry classes were given to an overall of 187 first-year engineering students. In addition to the lectures in the classroom, five classes received training via multimedia, comprising broadcast and 35mm slide shows. The remaining students took the identical coursework and assessments but did not receive any media education. Data contrasted each research group's performance in the subject, accomplishments in the subject, ability to visualize spatial relationships, and attitude towards the topic at hand. (Rankowski & Galey, 1979)

Table 5 presents the computed mean and standard deviation on the effects of multimedia resources in the life skills of children with Intellectual Disability as revealed on the pretest and post-test in each item in terms of leisure and recreational skills.

Leisure and Recreational Skills	Item	Pretest			Post-test		
		Mean	VI	SD	Mean	VI	SD
1. Guided plan of leisure activities	3	2.67	Can do	0.49	2.67	Can do	0.49
2. Group leisure and recreational activities	3	2.17	Can do with assistance	0	2.58	Can do	0.51
3. Good sportsmanship	3	2.00	Can do with assistance	0	2.67	Can do	0.49
General	3	2.28	Can do with assistance		2.64	Can do	

The pretest obtained the general mean of 2.28 verbally interpreted as Can Do with Assistance and the post-test on the other hand obtained the general mean of 2.64 with the verbal interpretation of Can Do in all competencies.

The emergence of new educational tools has given teachers a variety of options. However, attempts to put these strategies into practice have been fragmented and stymied by both the challenge of understanding and incorporating these choices and the dearth of support tools. The amount of effort and time needed to understand the technologies and the lack of an overview of the way these approaches may be used with more conventional techniques are two factors that contribute to this. (Stone, 1999)

Table 6 presents the computed mean and standard deviation on the effects of multimedia resources in the life skills of children with Intellectual Disability as revealed on the pretest and post-test in each item in terms of positive self-concept.

Positive Self-concept	Item	Pretest			Post-test		
		Mean	VI	SD	Mean	VI	SD

1. Self-image	3	2.17	Can do with assistance	0.49	2.42	Can do	0.39
2. Self-esteem	3	2.00	Can do with assistance	0	2.42	Can do	0.39
3. Ideal self	3	1.92	Can do with assistance	0	3.00	Can do	0
General	3	2.03	Can do with assistance		2.61	Can do	

The pretest obtained the general mean of 2.03 verbally interpreted as Can Do with Assistance and the post-test on the other hand obtained the general mean of 2.61 with the verbal interpretation of Can Do in all competencies.

Despite the fact that more people have accessibility to computers, additional technologies, and cyber-enabled media that could be used to improve students' science learning, it has been discovered that teachers typically use technology more frequently for administrative duties or to supplement conventional instruction. The majority of the most recent standards guidelines in scientific education, which encourage student participation in activities based on evidence sense-making, are at odds with this use of technology in particular to complement traditional instruction. Many believe that technology has the power to transform science education in a similar way that it is now transforming society. This research examined the effects of a training initiative aimed at boosting teacher and student learning through the use of information and communication technologies (ICTs) in order to take into account, the potential of technology in scientific classrooms. (Campbell, Longhurst, Wang, Hsu, & Coster, 2015)

Table 7 presents the computed mean and standard deviation on the effects of multimedia resources in the life skills of children with Intellectual Disability as revealed on the pretest and post-test in each item in terms of human sexuality.

Human Sexuality	Item	Pretest			Post-test		
		Mean	VI	SD	Mean	VI	SD
1. Peer relationship	3	1.92	Can do with assistance	0.49	3.00	Can do	0
2. Sexual urges	3	2.42	Can do	0	2.58	Can do	0.51
3. Unwanted pregnancy	3	1.92	Can do with assistance	0	2.67	Can do	0.49
4. Sexually Transmitted infection	3	2.00	Can do with assistance	0	2.58	Can do	0.51
5. Sexual Harrassment	3	2.08	Can do with assistance	0	2.67	Can do	0.49
General	3	2.07	Can do with assistance		2.70	Can do	

The pretest obtained the general mean of 2.07 verbally interpreted as Can Do with Assistance and the post-test on the other hand obtained the general mean of 2.70 with the verbal interpretation of Can Do in all competencies. This implies that exposing the respondents to multimedia did help to perform better as revealed by the post-test and retention of knowledge is better as compared with the pretest.

These findings support the statement of Baccay in the study of Daen, et. al. (2007) those instructional materials are important to convey more meaning for the lesson to be easily understood, thus, producing achievement on the part of students.

Table 8 presents the computed mean and standard deviation on the effects of multimedia resources in the life skills of children with Intellectual Disability as revealed on the pretest and post-test in each item in terms of moral development.

Moral Development	Item	Pretest			Post-test		
		Mean	VI	SD	Mean	VI	SD
1. Right and Wrong	3	2.08	Can do with assistance	0.49	3.00	Can do	0
2. Basic Laws	3	1.92	Can do with assistance	0	2.58	Can do	0.51
3. Human Rights	3	2.42	Can do	0	2.67	Can do	0.49
4. Rights of the Persons with Special Needs	3	1.92	Can do with assistance	0	2.58	Can do	0.51
General	3	2.09	Can do with assistance		2.71	Can do	

The pretest obtained the general mean of 2.09 verbally interpreted as Can Do with Assistance and the post-test on the other hand obtained the general mean of 2.71 with the verbal interpretation of Can Do in all competencies.

The table implies that learning is easier when multimedia materials will be used because it really catches the attention of children as revealed by the post-test and learning is better compared to pretest wherein the children are not exposed in multimedia.

The findings support Wolfe's theory that humans are highly visual creatures. The eyes contain almost 70% of the body's receptors and millions of messages that go via the optic nerves to the brain for visual processing. Humans absorb greater quantities of data visually than with any other sense.

The results are supported by Amparo (2005) as cited on Daen et.al. (2007) says that multimedia aid adds useful purpose. The instructional material has a big role to enhance overall productivity of the pupil's interest. It is also stated that inexperienced students will likely benefit from using multimedia materials in teaching life skills for better understanding.

All the tables 1 to 8 implies that learning is easier when multimedia resources will be used because it really catches the attention of children as revealed by the post-test and learning is better compared to pretest wherein the children are not exposed in multimedia.

Table 9 presents the computed t-value on the significant difference of the multimedia resources that affect the performance in the life skills of children with intellectual disability as revealed on the pretest and post-test in terms of above-mentioned variables.

Life Skills Package	df	Tc	tt	Ho	VI
Communication Skills	24	9.90	2.201	Reject	Significant
Health and Personal Safety	24	9.63	2.201	Reject	Significant
Community Orientation and Mobility Skills	24	9.66	2.201	Reject	Significant
Financial Literacy	24	9.87	2.201	Reject	Significant
Leisure and Recreational Skills	24	9.75	2.201	Reject	Significant
Positive Self-concept	24	9.79	2.201	Reject	Significant
Human Sexuality	24	9.88	2.201	Reject	Significant
Moral Development	24	9.69	2.201	Reject	Significant

The table shows that there is significant difference with the use of multimedia resources in the life skills of children with intellectual disability as revealed on the pretest and post-test in terms of above-mentioned variables since the t-value of 9.90, 9.63, 9.66, 9.87, 9.75, 9.79, 9.88, and 9.69 respectively are greater than the t-tabular of 2.20, thus, null hypothesis is rejected. Thus, the result implies that utilization of multimedia could be of help to students with intellectual disability to obtain more knowledge to understand better the task they are wanting to do.

These findings agree with the finding of Tatualla, et. al. (2008) that teachers find the use of computer multimedia more effective in teaching as they enhance the interest and attention of the students in the lesson, and a computer-based instruction is considered as one of the most effective innovation that reduces teacher's effort in oral teaching.

Conclusion

Based on the analysis and interpretation of data, the following were summarized. On the effects of multimedia resources in the life skills of children with intellectual disability as revealed on the pretest and post-test in terms of communication skills, health and personal safety skills, mobility and community orientation skills, practical financial literacy, leisure and recreational skills, positive self-concept, an understanding of human sexuality, and moral development. All the tables 1 to 8 implies that learning is easier when multimedia resources will be used because it really catches the attention of children as revealed by the post-test and learning is better compared to pretest wherein the children are not exposed in multimedia.

On the significant difference on the effects of multimedia resources on the performance in the life skills of children with intellectual disability as revealed on the pretest and post-test in terms of communication skills, health and personal safety skills, mobility and community orientation skills, practical financial literacy, leisure and recreational skills,

positive self-concept, an understanding of human sexuality, and moral development. There is significant difference with the use of multimedia resources in the life skills of children with intellectual disability as revealed on the pretest and post-test in terms of above-mentioned variables since the t-value of 9.90, 9.63, 9.66, 9.87, 9.75, 9.79, 9.88, and 9.69 respectively are greater than the t-tabular of 2.20, thus, null hypothesis is rejected. This implies that exposing the respondents to multimedia did help to perform better as revealed by the post-test and retention of knowledge is better as compared with the pretest.

For the conclusion of the study through the aid of the summary of findings, the following conclusions were formulated. Multimedia materials enable the pupils with Intellectual Disability to perform better in life skills. Seo, Templeton & Pellegrino (2008) studied the impact of project-based learning with multimedia support is examined in this article. In order to determine how the experience of creating multimedia projects affected beginning teachers' understanding and confidence in (a) technology, (b) subject matter, and (c) instruction, we performed pre- and post-surveys. The participants in this study were 42 preservice teachers taking an educational technology course. Over the course of one semester, they acquired the skills necessary to plan and create multimedia projects linked to their respective topic areas. The outcomes demonstrated that the strategy helped them improve professionally and in their knowledge of multimedia technologies. Results also strongly backed up their view on the instruction and learning process and helped them develop a clearer, more perceptive teaching methodology.

Also, intervention of multimedia aids of the pupils with Intellectual Disability to understand and perform the task assigned for the success. The article of Hasselbring and Glaser (2000) gives a general overview of how computer technology can support the education of kids with special needs in typical classroom settings. For instance, the three million kids with unique learning and emotional difficulties who utilize computers for word processing, collaboration, study findings, and multimedia tasks can stay up with their counterparts who are not disabled. Computer technology has also aided in the creation of sophisticated tools that can help the two million kids having more severe disabilities overcome a variety of barriers to participation in the classroom.

Acknowledgement

The researcher would like to give my sincere gratitude and appreciation to all the people who rendered the support, guidance and assistance towards the success of the research work. Without your help this study will not be possible.

MRS. MELANIE J. MESA and **MRS. MARICEL A. LATINA**, the current and former principal of Rosario Ocampo Elementary School respectively, for allowing the researcher to conduct the study;

PROF. JOHANNE SJ. ATERRADO and **DR. JANNIE SJ. MANIMTIM**, my former professors, for their valuable advice, suggestions and comments, which were vital in the improvement and development of the research;

SHEELA MARASIGAN-PAGKALIWAN, for her patience, assistance and for unselfishly sharing her knowledge on how to further rectify and enrich the manuscript;

To all the **COLLEAGUES / RESPONDENTS** especially **ERICA TIAMZON, LOVELY AZORES** and **MYCHEAL HIYAS** for their time, cooperation and being part of the research, without them this study will not be possible;

To all **University of Rizal System Morong Librarians** and **University of the Philippines Asian Center Librarians** for accommodating the researcher;

To my **FAMILIES** for their understanding, love, guidance, moral and financial support;

To my **CLASSMATES and FRIENDS**, for sharing their time, ideas, effort and support for the completion of the study especially **ELVIE BAS, NICKSON SAN JOSE, MICHELLE CERRERO, LOIS MARIE ILOCSO, LYSSA AURA MATAWARAN, ERNEL RAMOS, RIENA MAE BUBAN, NENNETE CERDA, RICHELLE SANTOS, MARYVEL SARANGUERO**;

And above all, to **ALMIGHTY GOD**, for the shower of blessings and strength. He gave in facing challenge, depression and obstacles that came our way and for making the group more united.

References

Abraham, L. B. (2007). Second-Language Reading Comprehension and Vocabulary Learning with Multimedia. *Hispania*, 90(1), 98–108. <http://www.jstor.org/stable/20063468>

Campbell, T., Longhurst, M. L., Wang, S.-K., Hsu, H.-Y., & Coster, D. C. (2015). Technologies and Reformed-Based Science Instruction: The Examination of a Professional Development Model Focused on Supporting Science Teaching and Learning with Technologies. *Journal of Science Education and Technology*, 24(5), 562–579. <http://www.jstor.org/stable/43867602>

Daen, et. al. (2007), “The Effect of Instructional Multi-Media in Teaching Environment Science in Second Year Students of Morong High School” Unpublished Undergraduate Thesis. University of Rizal System-Morong.

Hasselbring, T. S., & C. Glaser. (2000). Use of Computer Technology to Help Students with Special Needs. *The Future of Children*, 10(2), 102–122. <https://doi.org/10.2307/1602691>

Rankowski, C. A., & Galey, M. (1979). Effectiveness of Multimedia in Teaching Descriptive Geometry. *Educational Communication and Technology*, 27(2), 114–120. <http://www.jstor.org/stable/30217987>

Roschelle, J. M., Pea, R. D., Hoadley, C. M., Gordin, D. N., & Means, B. M. (2000). Changing How and What Children Learn in School with Computer-Based Technologies. *The Future of Children*, 10(2), 76–101. <https://doi.org/10.2307/1602690>

Seo, K. K., Templeton, R., & Pellegrino, D. (2008). Creating a Ripple Effect: Incorporating Multimedia-Assisted Project-Based Learning in Teacher Education. *Theory Into Practice*, 47(3), 259–265. <http://www.jstor.org/stable/40071550>

Stone, L. L. (1999). Multimedia Instruction Methods. *The Journal of Economic Education*, 30(3), 265–275. <https://doi.org/10.2307/1183064>

Tatualla, et. al. (2008) “Development and Validation of Computer Based Instruction in Teaching Selected Topics in Electricity” Unpublished Undergraduate Thesis. University of Rizal System-Morong.

Velleman, P. F., & Moore, D. S. (1996). Multimedia for Teaching Statistics: Promises and Pitfalls. *The American Statistician*, 50(3), 217–225. <https://doi.org/10.2307/2684658>