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Whole Brain Teaching: Approach for Improving the Memorization Skills of Learners with Mild Intellectual Disability (MID)

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ABSTRACT

Remembering information can be difficult, especially for a learner with Mild Intellectual Disability. One classroom instruction approach which maximizes students' engagement, focuses on the way the brain is intended to learn, and addresses the difficulty in memorizing is Whole Brain Teaching. This study was conducted to determine the effects of WBT as an approach to improve the memorization skills of the learners with Mild Intellectual Disability at City Central School – Special Education Center. The quasi-experimental research design was employed in the study. Eight (8) learners who were diagnosed with MID were randomly selected and assigned as experimental and control groups. Pretest and post-test were used in measuring the academic performance of the learners. The experimental group was taught using the WBT approach and the control group was taught using the conventional approach. The results revealed that the academic performance in both groups increased significantly after subjecting them to WBT approach and conventional approach, respectively. However, the results of the post-test comparison of both groups showed that

there was a statistically significant difference between the academic performance of the experimental and control groups in favor of the experimental group. Thus, WBT has a positive impact on the improvement of the memorization skills of learners with MID.

Keywords **–** Special Education, teaching strategies, quasi-experimental design, Cagayan de Oro City, Philippines

INTRODUCTION

Memorizing names, dates, vocabulary or lists can be difficult, especially for a student with Mild Intellectual Disability (MID). Individuals with Disability Act of 2004 (IDEA, 2004) defines intellectual disability, (formerly referred to as mental retardation), as significantly sub-average general intellectual functioning, that exists concurrently with deficits in adaptive behavior and manifests during the developmental period. It adversely affects a child's educational performance. Intellectual disability is classified into four levels: mild, moderate, severe, and profound. It can be defined as an IQ between 50 and 70. Students labeled as intellectually disabled exhibit delays in the social, adaptive behavior, and cognitive skills within classroom settings. They function quite capable both socially and vocationally. Their abilities appear impaired in the context of academic demands and intellectual functioning (Hunt & Marshall, 2006). Students with MID have difficulty remembering information (i.e., short-term memory). Whole Brain Teaching (WBT) is an approach that is used to get students' involvement in an organized and enjoyable way. In other words, it is a method of teaching that tries to cater to all the learning styles in one class. Research has documented that students learn best when the whole brain is involved (de Boer, 2003). WBT incorporates meaningful tools which combine movements, making gestures, singing, dancing, teaching to each other, group works and immediate feedback. Whole Brain Teaching is meant for the uniqueness of every teacher and classroom" (Vilsack n.d.). WBT is a flexible approach which allows the teachers to put their own spin on techniques to meet the classroom's needs (Biffle, 2013).

Based on the unstructured interview with Special Education teachers in Cagayan de Oro City, learners with intellectual disability are increasing in number in special education classrooms creating a need for special education teachers to use strategies that improve the academic performance of learners with Intellectual Disability. Others commented that planning the lesson and

preparing instructional materials for the growing population of students with Intellectual Disability need a lot of time. So, the teachers are inclined more on the conventional method; which is a teacher-centered approach where the teacher is the giver of information. In addition, the lecture is the most common teaching behavior found in schools, rather than using other learning approaches. It is undeniably important to explore an appropriate approach and strategy that can inhibit the difficulties in retaining information encountered by learners with MID.

Hence, the researcher uses an approach designed towards maximizing students' engagement and focus on the way the brain is really intended to learn that may address the improvement of memorization skills. Such approach is called the Whole Brain Teaching Approach, which is based on the philosophy of teaching and learning that aims to maximize students' involvement by activating the whole brain in learning and is based on the principles of cooperative learning.

Whole Brain Teaching is based on the philosophy that the brain is unique and every individual has the ability to learn (Duman, 2006; Tufekci & Demirel, 2009). Advocates of WBT have concluded that strategies in teaching that is based on neuroscience of how the brain works are able to create long term learning (Duman, 2006; Tufekci & Demirel, 2009) which leads to higher and successful academic achievement of the learners (Duman, 2010; Duman, 2006; Tufekci & Demirel, 2009). WBT is different from the conventional method because it gives emphasis to meaningful learning (Tufekci & Demirel, 2009). When learning becomes meaningful learners become interested in the lessons leading to a better academic performance (Inci, N & Erten, H. 2009; Tufekci & Demirel, 2009). WBT is useful in increasing the retention of learners (Inci, N & Erten, H. 2009).

A study conducted at the Universiti Sains Malaysia through the School of Educational Studies, where researchers investigated the effectiveness of this whole brain program as compared to traditional teaching methods (Bawaneh, Zain, & Saleh, 2011). One hundred and eighty-three students participated, of which approximately half were randomly selected to be in either the experimental group receiving whole brain teaching instruction or the control group with conventional instruction. The result of the study showed that brain-oriented teaching methods surpassed conventional method and brought motivation towards learning in Science (She, 2005; Saleh, 2012; Bawaneh, Zain, & Saleh, 2011). Researchers concluded that it is beneficial for curriculum writers to consider Hermann's whole brain teaching model, based on Hermann's dominance theory which postulates that the brain is divided into four quadrants that work systematically together (Hermann, 1988).

A research conducted to 8th grade Science and Technology students at the Turkish University of Firat, studied the impact of WBT instruction on achievement, attention, and motivation (İnci & Erten, 2011). A pre/post evaluation tool was used on an experimental and control group. The experimental group was provided with instruction using the WBT approach and the control group utilized the traditional method. This study considered a particular lesson on "States of Matter and Heat" and was conducted during the second semester of a school year. The results of the pre/post evaluation were analyzed using the SPSS program, Friedman test, and the Wilcoxon sign rank test. The results of the study showed a statistical significance as determined by the Friedman test, for the experimental group based on the results of the pre and post assessments. The Friedman test was applied using the SPSS program and evaluates several measurements including the mean, standard deviation, and statistical difference between the two groups of students. The study concludes that students who received instruction using the Whole Brain Teaching Approach performed better academically, indicated by a 27% increase in mean scores, and displayed a more positive attitude towards learning than students who were taught using traditional methods.

The WBT lessons which were developed by the researcher, hope to emphasize active learning and alleviate the academic performance of learners with Intellectual Disability by improving their memorization skills. Memory problems are of particular concern in contributing to multiple scholastic abilities such as reading and arithmetic. WBT promotes freedom to visualize, draw and act out their learning in a very flexible method which can be used for all age groups. Thus, the purpose of this study is to examine the effects of WBT approach on students' achievement at the knowledge level in their memorization skills.

FRAMEWORK

The study evaluates the effectiveness of the pedagogy, Whole Brain Teaching Approach, in teaching children with Mild Intellectual Disability. This study is anchored on Herrmann's Whole Brain Theory; Johnson and Johnson's Cooperative Learning Theory; Vygotsky's Sociocultural Theory; and Bandura's Social Learning Theory. The six theories are discussed below.

A theory that supports the principles of brain-based learning is the Whole Brain Theory by William Ned Herrmann (Inocian, 2015). He created a whole-brain model which is figuratively illustrated using a circle divided into four

quadrants to classify the preferences of the learners according to how they think and learn.

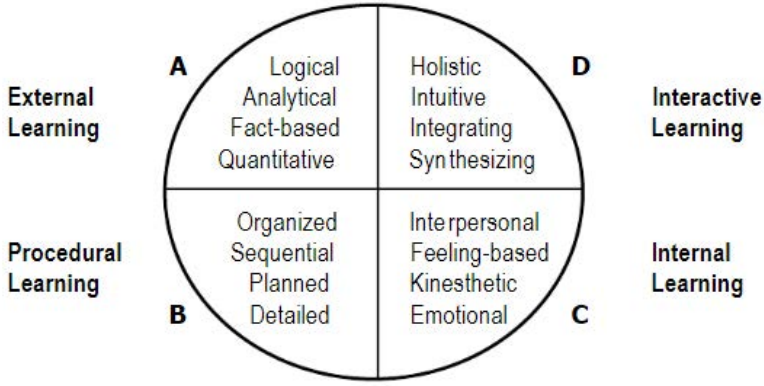

Figure 1: Hermann's Whole Brain Model

Figure 1 represents the four quadrants of the Herrmann model which shows the four learning structures of the brain. Each quadrant has different cognitive functions. According to Herrmann (1996), if a person develops a very strong preference for learning in one or two quadrants, he may reject learning on the other quadrants. Thus, his theory stresses the importance of providing equal learning opportunities for different learners by utilizing their strengths and attending to essential weaknesses, where each of the four learning styles is fulfilled in a single lesson (Bawaneh, Zain, & Saleh, 2011). It can be attained by using various methods, alternating with techniques and activities to address each of the four quadrants (Herrmann-Nehdi, 2002). It encourages whole-brain development as learning complex tasks involve a widely distributed network of brain areas (Worden, Hinton, & Fischer, 2011). Whole brain teaching is anchored on this theory as it supports the idea that a learner learns best when his whole brain is involved. Using a whole-brain approach to teaching and learning helps to reach and engage diverse learners, improve their retention and deliver memorable learning experiences (Herrmann-Nehdi, 2009).

The principle of Cooperative Learning Theory by David Johnson and Roger Johnson, (2002) also supports Whole Brain Teaching. This theory acknowledges learning in which knowledge and skills are constructed through mutual

interaction among participants. Cooperative learning is a teaching strategy which practices small groups so that students work together and learn from each other. The effectiveness of cooperative efforts depends on how well positive interdependence, face-to-face promotive interaction, individual accountability, interpersonal and small group skills, and group processing is structured within the learning situation (Johnson and Johnson, 2002; Jacobs, Lee, and Ng, 1997). WBT involves students to become more engaged in the classroom activities allowing them to become responsible for their learning giving an optimum leeway for student-centeredness to take place in the classroom.

WBT is based on the philosophy by Lev Vygotsky about the socio-cultural theory. This theory recognizes that human activities happen in social settings and cannot be seen separated from these settings. The main factor of this theory is peer interaction. Based on the theory of "More Knowledgeable Other" by Vygotsky, teachers transfer the role of the more knowledgeable other to the students using WBT. Based on this theory, a technique like Teach–Okay which has been included in the big seven is applied. It is when students turn to teach each other, mimicking the "lesson" taught by the teacher.

Research has shown that modeling is an effective instructional strategy and that it allows students to observe the teacher's thought processes. With the use of WBT, this type of instruction engages students in the imitation of particular behaviors that encourage learning. According to social learning theorist Albert Bandura (1977), "Learning would be exceedingly laborious, not to mention hazardous if people had to rely solely on the effects of their own actions to inform them what to do. Fortunately, most human behavior is learned observationally through modeling: from observing others one forms an idea of how new behaviors are performed, and on later occasions, this coded information serves as a guide for action." (p.22). Modeling involves kinesthetic teaching by using body movements to teach concepts. This method of teaching encourages the participation of the learners through hand gestures or body movements to demonstrate understanding (Van Housen, 2015). There is a significant amount of research that indicates a positive relationship between movement and learning, as well as movement and retention. According to Jensen (2005), movement can be an effective cognitive strategy to (1) strengthen learning, (2) improve memory and retrieval, and (3) enhance learner motivation and morale. This statement speaks to the need and resistance to implementing instructional practices with kinesthetic elements and moving away from those practices that have been proven to be ineffective.

The researcher conceptualized a paradigm patterned after the Input-Process-Output model to illustrate the relationships of the variables and the research process of the study. As presented in Figure 2, the input variables include the pretest and the respondents (Experimental and Control Groups) of the study. A pretest was used to assess the performance of the students before the utilization of the WBT. Results of which were then compared to the post-test results subjecting WBT. The process employed the kinds of instructions that were used for the experimental group which are WBT techniques and the control group which is conventional teaching techniques. After which, a post-test was administered to measure the academic performance of the students as a result of WBT. The output variable contained the result of the effectiveness of the approaches in the academic performance in Science in terms of memorization skills of children with Mild Intellectual Disability.

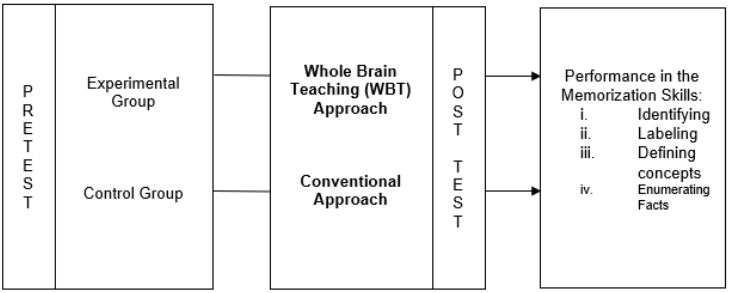

Figure 2: A Schematic Presentation of the Variables in the Study

OBJECTIVES OF THE STUDY

This study aimed to determine the effectiveness of WBT in the memory skills of learners with MID at City Central School – Special Education Center. Specifically, it seeks to answer the following objectives; (1) to describe the academic performance in Science in terms of the memorization skills of the learners with MID in City Central School – Special Education Center as reflected in the pretest mean scores of the students; (2) to determine the performance of the learners with MID in City Central School – Special Education Center when exposed to the WBT Approach and the Conventional Approach; (3) to determine the extent of effectiveness in the utilization of the WBT Approach in the aspects of memorization skills, such as – identifying, labeling, defining

concepts, enumerating facts; and (4) to compare the significant difference in the academic performance in Science in terms of the memorization skills of the learners with MID after exposure to the WBT Approach and the Conventional Approach.

METHODOLOGY

Research Design

The quasi-experimental research design which compares two treatment groups was utilized in this study. This design involves an experimental group and a control group. In conducting pre-experiments, the teacher conducted a pretest to the learners with MID. Subsequently, the two groups were taught with instructions using the WBT Approach and the Conventional approach respectively. A post-test was administered after twelve (12) days of using the two different approaches to find out if there is an improvement in the memorization skills of learners with MID.

Research Site

The researcher conducted the study at City Central School – Special Education Center which is located inside the campus of City Central School in Velez-Yacapin Street. It is one of the public schools which cater to students with special needs in the City of Cagayan de Oro.

Participants

The respondents of this study were learners from City Central School – Special Education Center, in the school year 2018-2019. Eight (8) learners who were diagnosed with MID, ages 6-9 years old were selected as respondents. Half of the eight (8) learners were the experimental group, in which the WBT was utilized. The other half was the control group in which the researcher used the Conventional Approach for instruction. The learners with MID at City Central School Special Education Center were purposively chosen because they were given a diagnosis of MID by a developmental pediatrician.

Instrumentation

A research instrument was prepared to measure the extent of the teacher interventions in the improvement of the memorization skills of the learners with MID. An evaluation test was used as the main tool for gathering the data of this

study. It consists of a pretest and posttest that were used to measure the academic performance of the students. It was prepared and validated by the researcher. This teacher-made test was originally a 40-item test. It was analyzed qualitatively and quantitatively. Qualitative analysis of the test includes content validation. A Table of Specification was prepared to determine the academic domains that were measured and to ensure that there was a fair and an ideal sample of questions that appear on the test. The use of a Table of Specifications can provide teacher made tests' validity (Notar, Charles, 2004). The researcher focused on the knowledge level in Bloom's cognitive domains with the skills in identifying, labeling, defining concepts, and enumerating facts since this study relates to the memorization skills of learners with MID.

To ensure the validity of the evaluation test, it was presented to a panel of experts to evaluate the correctness of content, representativeness of the concepts used, and appropriateness of the language level. There were ten (10) experts who validated the test; the first expert was a Special Education Headmaster in Theralinks Asia; the second expert was a Special Education teacher in New York City Board of Education School; the third expert was an Assistant Headmaster in PROIS International Christian School – Greenville Branch; the fourth expert was an Assistant Principal in Xaris Theos Christian School; the fifth expert was an Assessment-I instructor in the University of Science and Technology of Southern Philippines; the other two (2) members of the panel of experts were Special Education teachers with a MATSPED degree; and the other three (3) members of the panel of experts were Kindergarten teachers from different private sectors. The researcher provided the panel of experts with the tool used for the study. They assessed the tool and gave comments and suggestions on the developed evaluation test for the improvement of the tool. The revisions were made based on the comments and suggestions of the experts.

For its quantitative aspect, an item analysis was done. The test was given to a group which resembled the subjects of the study. It was administered to the Kindergarten pupils of one of the sections in City Central School during the school year 2018-2019. Each item was analyzed as to their difficulty or discriminating factor. The index of difficulty of each item was also determined. Only items with an index of difficulty of 0.25 to 0.75 were included in the final test.

The test was ascertained by item evaluation of discrimination index values depicted in the guidelines of Stanley and Hopkins (1981) and Hedges (1966), as cited in the study of San Juan (1990), summed up as follows:

Index of Discrimination	Item Evaluation
.40 and above	Very Good item
.30 to .39	Good Item
.20 to .29	Reasonably Good Item
.10 to .19	Marginal Item, usually subject to improvement
Below .10	Poor Item
0	Not Acceptable
Negative Value	Fails to discriminate

The criteria were followed in determining which of the 40 items should be included in the final Achievement Test. The improved test is only a 20-item test. Using Kuder Richardson (2011) formula 20, the reliability coefficient of the test is calculated to be .79 for the sample used in the validation.

Data Gathering Procedure

The researcher secured a permit from the Schools Division Superintendent office for the approval to conduct the study in City Central School. The teachers who were involved in the study were given an orientation to carry out the teacher rotation schedule effectively and were given instructions about the mechanics of the approaches. The researcher sent consent forms to the parents of the respondents to allow their children to participate in the researcher's study for twelve days. The researcher taught in both the experimental and the control groups. The researcher learned the WBT approach during her first year of teaching in an international school. With this, she enriched her knowledge on this technique by reading journals and watching videos in "Youtube" about this approach.

The eight (8) learners with MID were divided into two groups using the random sampling technique called the "Fishbowl Method" by Sevilla (1993). The researcher wrote the names of each learner with MID, one name for each piece of paper. Then the papers were rolled up and shuffled in a bowl. Afterwards, the researcher took the rolled paper from the bowl twice for each division. From this, the researcher got the participants for each group.

The first group was the experimental group in which the four (4) learners with MID were given instructions using the WBT. On the other hand, the second group was the control group in which this group of respondents was exposed to the Conventional Approach. A pretest was administered personally by the researcher to both groups after having identified the respondents of the study. The respondents were given enough time to answer the pre-test. The retrieval of the answered test paper was done by the researcher herself right after it was

answered on the same day. The results of the pretest from both groups were checked and recorded.

The intervention lasted for twelve (12) days, which occur during a regular class schedule at 7:30am-9:00am. The researcher conducted the two approaches within this timeframe wherein during the first thirty (30) minutes, 7:45am-8:15am, the first approach which is the WBT was conducted to the experimental group followed by another thirty (30) minutes of exposure to the Conventional approach for the control group at 8:15am – 8:45am. Singleton (2009) stated that teaching could be effective for groups of up to four or five students.

After identifying the two groups, the experimental group was familiarized with the WBT Approach for twelve (12) days. The researcher incorporated in her instruction the so-called "The Big Seven," which included; Step 1: Class-Yes, Step:2 Classroom Rules, Step 3: Teach-OK, Step 4: Scoreboard Game, Step 5: Hands and Yes, Step 6: Mirror, and Step 7: Switch. The instruction focused on the following topics: Common Plants, Parts of a Plant, Needs of Plants, Ways to Care for Plants, and Importance of Plants. Same instruction was given to the control group using another approach which was the Conventional Approach. In the conventional approach, the researcher incorporated in her instruction a traditional way of teaching wherein most of the time was centered on the textbook and lecture method was used. The control group was given lectures and discussions on the same topics.

After the twelve-day intervention, the two groups were given the post-test of the evaluation test. This was administered and scored in the same way as the pretest.

Ethical Considerations

All participants were advised that their participation was voluntary. Consent Forms with the format from the Department of Education were provided to the parents or guardians of the participants since the respondents were below 18 years old. It was explained to the parents/guardians that the results and findings were highly confidential.

Statistical Treatment

To determine the effect of WBT Approach on the improvement of the memorization skills of learners with MID, an analysis of covariance (ANCOVA) was used. A one-way ANCOVA was employed to seek the possible effects of the approaches in the memorization skills of the learners. Descriptive statistics, such as mean, frequency and percentage were also used for the analysis of data.

RESULTS AND DISCUSSION

The results and discussion provide information on the effects of Whole Brain Teaching as an approach to the improvement of the memorization skills of learners with MID.

Academic performance in Science in terms of the memorization skills of the learners with MID in City Central School – Special Education Center as reflected in the pretest mean scores of the students.

Table 1. Mean Achievement Scores of the Participants in the Pretest

Pretest	Minimum	Maximum	Mean	Standard Deviation
Control Group	4	8	6.25	1.708
Experimental Group	5	8	7.00	1.414

Table 1 presents the mean achievement scores of the learners with Mild Intellectual Disability in the pretest. It shows that the control group had a minimum score of 4 and the experimental group had a score of 5 in the pretest. Moreover, both groups got the same maximum scores of 8. The minimum and maximum scores in both groups are comparable. It can be gleaned from the data that the experimental group apparently had a higher pretest mean score than that of the control group, but the difference is not very significant. The spread of the scores of the two groups is also comparable. The data imply that the students in both the control and the experimental groups are comparable in terms of their performance in the pretest. The pretest showed that the participants performed below the mastery level. This can be due to the reason that the learning competencies were new to them and that the lessons were not discussed in their Science class.

Performance of the learners with MID in City Central School – Special Education Center when exposed to the WBT Approach and the Conventional Approach.

Table 2. Mean Achievement Scores of the Participants in the Post-test

Pretest	Minimum	Maximum	Mean	Standard Deviation
Control Group	13	17	14.75	1.708
Experimental Group	17	20	18.50	

The table above presents the performance of the learners in the post-test. The data show that the control group had a minimum score of 13 and a maximum score of 17. On the other hand, the experimental group had a minimum score of 17 and a maximum score of 20, which is a perfect score. The mean and gain scores obtained from the two groups are also presented. The difference in the minimum, maximum, and mean scores of the two groups is evident. It can be gleaned from the data that the two groups differ in their post-test means. The experimental group has a higher mean score in the post-test and higher gain scores in all groups of learners according to their level of performance. The results revealed that the academic performance in both groups increased significantly after subjecting them to WBT approach and conventional approach respectively. However, the results of the post-test comparison of both groups showed that there was a statistically significant difference between the academic performance of the experimental and control groups in favor of the experimental group.

Table 3. Extent of Effectiveness in the Utilization of the Whole Brain Teaching Approach in the Aspects of Memorization Skills. a) Identifying; b) Labeling; c) Defining Concepts; d) Enumerating Facts

Analyzing of Covariance (Identifying)					
Source	Sum of Squares	df	Mean Square	F	Significance
Pretest	0.083	1	0.083	0.294	0.611
Group	0.012	1	0.012	0.042	0.846
Analyzing of Covariance (Labeling)					
Source	Sum of Squares	df	Mean Square	F	Significance
Pretest	0.000	1	0.000	0.000	1.000
Group	2.000	1	2.000	5.000	0.076
Analyzing of Covariance (Defining Concepts)					
Source	Sum of Squares	df	Mean Square	F	Significance
Pretest	0.167	1	0.167	0.625	0.465
Group	2.000	1	2.000	7.500	0.041*
Analyzing of Covariance (Enumerating Facts)					
Source	Sum of Squares	df	Mean Square	F	Significance
Pretest	0.205	1	0.205	0.662	0.453
Group	5.411	1	5.411	17.506	0.009*

*Significance at the 0.05 level of significance

The table implies that in the pretest, the control and the experimental groups have no significant difference in performance among the four different memorization skills.

However, in the post-test, the groups have significant differences in their performance in the 'defining concepts' and 'enumerating facts' memorization skills. But the groups are not significantly different in their performance in the 'identifying' and in the 'labeling' memorization skills.

The result implies that whole brain instruction contributed to the retention and improvement in the memorization skills of learners with Mild Intellectual Disability. Group work, such as interaction with the teacher and peers, is the essential technique used in the whole brain instruction. As Sousa (2001) indicated, the best way to retain information is through teaching others. Whole brain instruction contains self-reflection and group interaction, and it requires either group presentations or discussions, therefore, these may have contributed to the significant increase in learning retention of the learners with MID in the whole brain instructional teaching group.

The result in which there is a significant difference on the academic performance of the learners with MID implies that WBT contributed to the retention and improvement in the memorization skills specifically on "defining concepts" and "enumerating facts". Group work, such as interaction with the teacher and peers, is the essential technique used in the whole brain instruction. As Sousa (2001) indicated, the best way to retain information is through teaching others. Whole brain instruction contains self-reflection and group interaction, and it requires either group presentations or discussions, therefore, these may have contributed to the significant increase in learning retention of the learners with MID in the experimental group.

Table 4. Significant difference in the Academic Performance in Science in terms of the Memorization Skills of Learners with Mild Intellectual Disability after Exposure to the Whole Brain Teaching Approach and the Conventional Approach Analysis of Covariance (Overall)

Source	Sum of Squares	Df	Mean Square	F	Significance
Pretest	7.123	1	7.123	5.374	0.068
Group	19.373	1	19.373	14.616	0.012

The table above is the result of the analysis in the overall performance of the two groups in terms of their memorization skills, in general. Based on the

figures from the table, the experimental group significantly performed better than the control group. Hence, the WBT approach is effective in improving the memorization skills of the students.

In this study, it was revealed that utilizing Whole Brain Teaching increases significantly on the learners' academic performance in Science in terms of their memorization skills. This could be due to the fact that multiple areas of the brain are activated when using WBT techniques throughout the lessons. It was evident during the course of the study as the researcher observed that the learners get excited and participative when the Class-Yes was used. They immediately responded when called as compared to the learners taught using conventional teaching techniques. It was supported by the study of Kelso (2009) that positive students' response increased when WBT attention getters like Class-Yes were used in the classroom.

Hypothesis:

There is no significant difference on the academic performance in Science in terms of memorization skills of the learners with Mild Intellectual Disability in City Central School – Special Education Center after exposure to the Whole Brain Teaching Approach and the Conventional Approach in terms of the four aspects of memorization skills namely: a) Identifying; b) labeling; c) defining concepts; d) enumerating facts

CONCLUSIONS

Based on the results and findings of the study, the researcher concluded that the WBT Approach has a positive effect on the improvement of the memorization skills of learners with MID. Through the Big Seven Technique, the learners were able to remember the topics that were taught. Thus, there is higher retention of the topics learned when taught using the WBT Approach than the Conventional Approach. WBT techniques such as Mirror, Teach-Okay, and Switch Methods help the students to recall the lessons because it enables students to repeat the information given by the teacher. Furthermore, Whole Brain Teaching can be used to any age level, to any group of students, and to any types of learners, even to persons with disabilities.

TRANSLATIONAL RESEARCH

The outcome of this study will be used as an effective classroom approach in teaching learners with Intellectual Disabilities to improve their memorization skills. This could inspire the Special Education program to be more innovative in developing further instructional strategies such as WBT that would make a difference in the educational system, making the students more cooperative, responsible, and functional persons in the future. Moreover, it will be of great help to all SpEd and regular classroom teachers to utilize this method for it is found beneficial to the learners with the use of two or more senses.

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