THE EFFECTIVENESS OF THE USE OF COURSE REVIEW HORAY (CRH) METHODS TO IMPROVE NUMERACY DIVISION SKILL OF CHILDREN WITH MILD MENTAL RETARDATION IN SLB NEGERI SURAKARTA, INDONESIA YEAR 2016/2017

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Abstract:

This research aimed to investigate the effectiveness of the use of Course Review Horay (CRH) methods to improve numeracy division skill of children with mild mental retardation in class IV of SLB Negeri Surakarta in the academic year of 2016/2017. This study used a quantitative approach with Pre-Experimental type (One Group Pretest-Posttest Design). The subject was six students with mild mental retardation from class IV. The data of this research was collected by test. Based on the calculations using SPSS 23, found that the average value during the pretest was 51,67 which experienced a significant increase in the average posttest value was 76,67. It can be concluded that the use of Course Review Horay (CRH) methods is effective to improve numeracy division skill of children with mild mental retardation in class IV of SLB Negeri Surakarta in the academic year of 2016/2017.

Keywords: Course Review Horay (CRH) methods, numeracy division skill, children with mild mental retardation

1. Introduction

Education for children with special needs has many different characteristic and learning strategy. Education for children with mental retardation is an education that can be given to children with special needs. Children with mental retardation are children who have subnormal intelligence with IQ score less than 70 (Kemis and Rosnawati, 2013:1).

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Children with mental retardation have limitation in thinking, low memory, and difficult to think abstractly. Their limitation makes them experience some difficulties in academic field particularly in math. One of the difficulties which is experienced by children with mental retardation in math is numeracy division skill. Children with mental retardation less able to understand math concepts and face difficulties to apply it in daily living. Math is necessary to be early given to children in school to improve problem solving skill in counting.

Counting is a part of math. Counting skill is required to improve math basic knowledge so the children are better prepared to follow higher level of math. But, children with mental retardation face a lot of problem in counting. According to Priyanti, Lestari, and Samidi (2013), stated that less attractive and less fun counting lesson which is learned by student can make them feel unhappy and get easily bored. They would think that counting lesson is difficult and boring. The difficulties are faced by normal children, especially for children with mental retardation who have low memory and hard to think abstractly. Math has important part in daily living but children with mental retardation experience difficulty in learning math. Math can be understood by children with mental retardation if the teacher can apply proper learning method which can help them in studying. Based on the mentioned problems, researcher proposes a solution which is a learning method that can be applied by teacher in teaching Math. Learning method is a strategy which is applied by teacher in teaching to increase motivation and student's interest in studying. The applied learning method is Course Review Horay (CRH).

Course Review Horay (CRH) is a learning method which can create exciting and fun class atmosphere because every student who has right answer must shout "Horay!" or another preferably yells (Huda, 2013: 229). That learning method emphasizes to student's comprehension test in answering question. The task is done in small group. CRH can make the class more lively and fun because students will have interaction with their friends in group and accept the learning content from the teacher.

CRH is suitable for children with mental retardation because it can increase interest in math studying. The result of research by Hermawan, Kamsiyati, and Atmojo (2012) said that CRH method is not only want the children learn about skill and academic content but also train the student to reach social relationship purposes which can influence their academic achievement in school. Result of another research by Kasna, Sudhita and Rati (2015) which reveals CRH method has positive impact in student learning completeness. The result found that student pay more attention when the lesson was lasting, learning condition was more conducive, and student's learning

enthusiasm increased. Increased student's studying interest influences in increasing their learning completeness value.

Many result of researches show that CRH method can increase student learning motivation and learning achievement. Based on those statements, researcher was interested to do a research entitled "*The Effectiveness of Course Review Horay (CRH) Method to Improve Numeracy Division Skill of Children with Mild Mental Retardation in Class IV C of SLB Negeri Surakarta on Academic Year 2016/2017*"

Problem of this study is "*Does Course Review Horay method effective to improve division skill of Children With Mild Mental Retardation in Class IV C of SLB Negeri Surakarta on Academic Year 2016/2017?*" The purpose of the study is to investigate the effectiveness of Course Review Horay (CRH) Method to Improve Numeracy Division Skill of Children with Mild Mental Retardation in Class IV C of SLB Negeri Surakarta on Academic Year 2016/2017.

2. Research Methodology

2.1 Research Design

The study used quantitative approach with one group prestest-posttest experimental design. Experimental research method is used in a research which is used to investigate any impact of the given treatment in conditional situation (Sugiyono, 2009:72). According to Purwanto (2008: 180), "*Experimental research is research in which the presence of the variables to be studied (the dependent variable) intentionally inflicted by manipulating the use of treatment*". Methods of experimental research can be conducted in a classroom and then the subject will be given certain treatments. The research activities carried out by collecting the evidence that exists and provide certain treatments, then observe the change.

Design used in this research was One Group Pretest-Posttest Design, where a group of subject is given treatment in a period of time. Draft one group pretest-posttest design includes three steps, namely first measurement (T1), treatment of experimental subjects, and second measurement (T2). The measurement was done before and after treatment, and the differences between the result of first measurement (T1) and result of the second measurement (T2) is the influence of treatment given.

2.2 Research Variable

This research with title "*The effectiveness of the use of Course Review Horay (CRH) methods to improve numeracy division skill of children with mild mental retardation in SLB Negeri Surakarta year 2016/2017*" contains two variables, namely:

1. Independent Variable (X)

The independent variable in this research is Course Review Horay (CRH) methods.

2. Dependent Variable (Y)

Dependent variable is variable influenced by dependent variable. The dependent variable in this research is numeracy division skill of children with mild mental retardation in SLB Negeri Surakarta.

2.3 Technique of Collecting Data

Data in this research is numeracy division skill of children with mild mental retardation. Instrument used to collect the data in this research is test, validation from contain, and assessment experts.

2.4 Technique of Analyzing Data

Technique of analyzing data used in this research is quantitative descriptive.

2.5 Procedure

Title of this research is "*The Effectiveness of The Use of Course Review Horay (CRH) Methods to Improve Numeracy Division Skill of Children with Mild Mental Retardation in SLB Negeri Surakarta Year 2016/2017*". It contains two variables, namely: (1) independent variable: Course Review Horay (CRH) methods, and (2) dependent variable: numeracy division skill of children with mild mental retardation in SLB Negeri Surakarta. This research aims to test hypothesis said "*There is significant influence of the using of Course Review Horay (CRH) methods to improve numeracy division skill of children with mild mental retardation in SLB Negeri Surakarta year 2016/2017*".

Instrument used in this research is test, namely numeracy division. Validity of this instrument is tested to gain valid data. 3 lecturers validated the instrument. This research is conducted after the instrument and field preparations are done. This research is located in SLB Negeri Surakarta with 6 students of 4th grade mild mental retarded students on first semester year 2016/2017 as the subject.

This research is given one basic competence, namely numeracy division based on existing images. First data is collected by using arranging data. The next step is giving treatment by implementing Course Review Horay (CRH) methods with numeracy division. After treatment, research gave posttest to 4th grade of mental retarded students.

Final step of this research is analyzing the results of pretest and posttest. Before analyzing using Wilcoxon Signed Rank Test by helping of SPSS program 23rd version, first it is needed to explain data description of pretest and posttest with their histogram. Analysis technique used quantitative non parametric analysis with Wilcoxon Sign Rank Test symbolized in Z. Collected data was formed in any impact of CRH method to student's division skill. After that, researcher analyses data and presents research findings. The final step is giving conclusion based on data.

3. Results

3.1 Description of the Data

A. Data of Students' Ability before Treatment

The result of the study includes data of subject's value on pretest and posttest. It contains data of numeracy division skill of children with mild mental retardation before treatment. Data of pretest value will be presented in the following table 1.

Table 1: Data of Pretest Score

| Number	Students' Initial Name	Score *Pretest*
1.	C P	50
2.	E K	40
3.	S H	60
4.	M A	60
5.	P W	40
6.	R R	60

B. Data of Students' Ability after Treatment

It contains data of numeracy division skill of children with mild mental retardation after treatment. Data of posttest value will be presented in the following table 2.

Table 2: Data of Posttest Score

Number	Students' Initial Name	Score *Posttest*
1.	C P	70
2.	E K	60
3.	S H	80
4.	M A	80
5.	P W	80
6.	R R	90

Table 3: Histogram of Pretest and Posttest Score
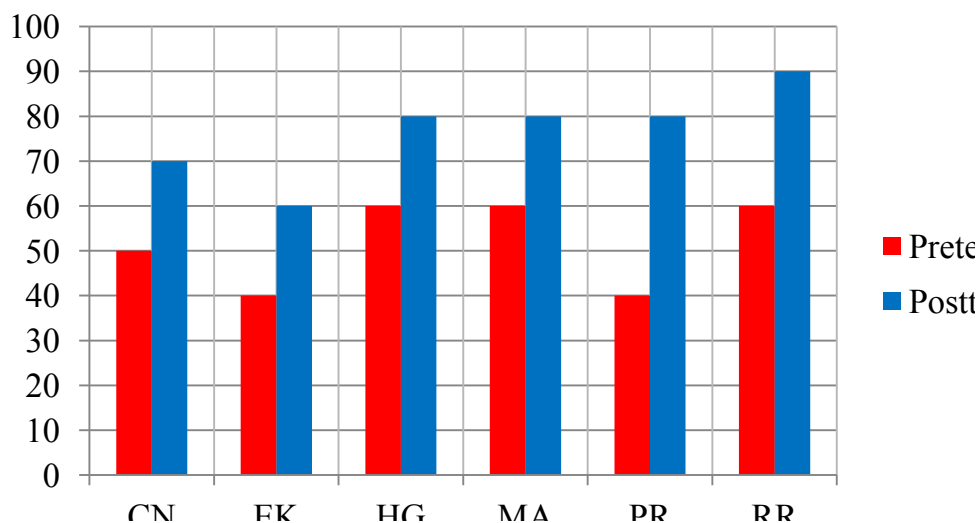
3.2 Result of Hypothesis Test

To prove the hypothesis that there is significant influence of using Course Review Horay (CRH) methods to improve numeracy division skill of children with mild mental retardation in SLB Negeri Surakarta year 2016/2017, it is used Wilcoxon Signed Rank Test as follows.

Table 4: Data Analysis Before and After Treatment

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Pretest	6	40	60	51,67	9,832
Posttest	6	60	90	76,67	10,328
Valid N (listwise)	6				

Based on table 4 presented data above, found that there was difference between subject's division skill mean value on the pretest and postest. Mean value on pretest was 51 67 which increased significantly on posttest. The posttest mean value was 76,67.

Table 5: Result of Division Skill Pretest and Posttest Sign Rank Test

Wilcoxon Signed Ranks Test

Ranks

		N	Mean Rank	Sum of Ranks
posttest - pretest	**Negative Ranks**	0[a]	,00	,00
	Positive Ranks	6[b]	3,50	21,00
	Ties	0[c]		
	Total	6		

a. posttest < pretest

b. posttest > pretest

c. posttest = pretest

Table 6: Result of Statistic Test Pretest and Posttest Value

Test Statistics

	posttest – pretest
Z	-2,264[b]
Asymp. Sig. (2-tailed)	,024

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

Based on the result of statistic pretest and posttest value test which has been counted with Wilcoxon Sign Rank Test as presented in table 5 and 6, found that Z_{count} score based on negative rank was -2,264 with Asymp.Sig (2 tailed) was 0,024. Probability in Z_{count} was 0,024, so it took 0,05 significancy level. Probability score in Z_{score} was compared to fixed significancy level which is α=0,05 or 5%. It can be concluded that Z_{count} was smaller than fixed significancy level which is 0,024 is smaller than 0,05. Based on the result of calculated descriptive analysis, showed that there was significant enhacement in subject's mean between pretest anf posttest, where the pretest mean was 51,67 and posttest mean was 76,67.

4. Discussion

Based on data analysis calculating and result of alternative hypothesis test above, it can be stated that CRH method is can be applied in math lesson which has good impact in improving numeracy division skill of children with mild mental retardation. Mild mentally retarded children have intellectual obstacles that make them face difficulties in learning math with abstract concept. That's why, mentally retarded children will able to understand the lesson if they get real experience in learning CRH method can increase

children with mental retardation's interest in learning math and they can involve their self straightly in the lesson.

CRH learning method can trigger the children to be more active in learning and the lesson will be not monotonous. Children will be more passionate in studying because of the exciting class atmosphere. The method shows student's liveliness in learning so the lesson is student centered. Through CRH method, the lesson will be active, constructive, fun, and meaningful so the counting skill indicator can be reached in learning.

Learning with CRH has many advantages when it is applied in the study progess. Children are more enthusiastic in learning math division content, the children compete their score each other so they can yell "Horay" most frequently and get the highest score. The children also solve division problem by drawing creatively as many as their teacher mention the problem.

CRH method is effective to be used in math lesson in division content. The method application is expected can be used in other lessons. It is expected to make the learning progess will be more fun and not boring so the children can understand the lesson optimally and make the teacher more creative in appliying available learning methods.

The result of hypothesis test using Wilcoxon Sign Rank Test which is counted with SPSS 23 found that Z_{score} of this study is 2,264 with probability 0,024 is smaller than 0,05, which means Asymp.Sig.(2 tailed) is smaller that fixed significancy level. So, the null hypothesis is rejected and alternative hypothesis is accepted. The hypothesis based on calculating states that "*Course Review Horay (CRH) method influences in improving numeracy division skill of children with mild mental retardation in class IV of SLB Negeri Surakarta on academic year 2016/2017*".

5. Conclusion

Based on the explained result of the study and data analysis disscusion above, it can be concluded that Course Review Horay (CRH) method is effective in improving numeracy division skill in mild mentally retarded children in class IV of SLB Negeri Surakarta on academic year 2016/2017. CRH can be applied as an interesting method in lesson to increase children's counting skill. The method can trigger student't interest in studying math in the school.

6. Implication

Based on the conclusion, implication of this research can be implied theoretically and practically. These following are the theoretically and practically implication of CRH method application in improving numeracy division skill of children with mild mental retardation in class IV of SLB Negeri Surakarta on academic year 2016/2017:

1. Thereotical implication

    Thereotically, it can expand knowledge of the researcher and teacher about CRH method as an alternative to improve numeracy division skill of grade IV children with mild mental retardation.

2. Practical Implication

    Practically, CRH method application can be applied in learning progress as an effort to improve numeracy division skill of children with menntal retardation class IV.

7. Suggestion

Based on the conclusion, researcher offer suggestions for teacher, student, school, and another researchers. The suggestion given as the following:

1. For Headmaster

    Headmaster is expected to socialize about CRH method application to teachers by inviting resource person so the method can be applied as a method which can improve numeracy division skill of children with mental retardation.

2. For Teachers

    Teachers are expected that they can apply CRH method as learning method which can be applied in learning activity to improve numeracy division skill of children with mental retardation.

3. For Students

    Students are expected to optimize CRH method application to improve their numeracy divison learning performance by teacher's guidance.

4. For Researchers

    The next researchers are expected that they can make further study about CRH method in improving numeracy division skill of children with mental retardation so it can increase some research reference more widely and deeply.

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