

## **Building counting by traditional game: A Mathematics Program for Young Children**

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### ***Abstract***

In line with design research, the use of Bermain Satu Rumah (BSR) as traditional game to support children's counting classroom wherein students are encouraged to construct mathematical understanding. Number in traditional games is an interesting aspect that is helpful for children to encounter numerous situations that bring them into contact with sounds, symbols and meanings that relate to numbers. Bermain satu rumah as starting activity would be media to enhance student's sense of number as well as to be used as learning material. By developing *model-of* problem of bermain satu rumah as traditional context, resultative counting is counting a number of things with the aim of determining how many are there (the result) that can be showed by using addition and multiplication concepts. Student's thinking on their level exhibited us their successful conservation when they were in the last grade. The progress of understanding by game, especially bermain satu rumah, is concrete effort to support number learning in primary school. Using game in learning process, for instance, mathematics learning for primary school can be a mathematics program for young children.

**Key words:** *Resultative Counting, bermain satu rumah, Mathematics Program*

### **Abstrak**

Melalui penelitian desain, penggunaan Bermain Satu Rumah (BSR) sebagai permainan tradisional untuk mendukung kegiatan pelajaran membilang anak dimana mereka akan terpacu untuk mengkonstruksi pemahaman matematis. Bilangan dalam permainan tradisional merupakan aspek menarik yang membantu anak untuk mengalami berbagai situasi yang mengajak mereka untuk bersentuhan dengan suara, simbol, dan arti yang berkaitan dengan bilangan. Bermain satu rumah sebagai aktivitas awal bisa menjadi media untuk meningkatkan kepekaan bilangan anak sekaligus materi pembelajaran. Melalui pengembangan masalah *model-of* dari bermain satu rumah sebagai konteks lokal, membilang resultatif melalui membilang sejumlah garis bersilangan bertujuan untuk menentukan berapa banyak (hasil bermain) yang dapat ditunjukkan dengan menggunakan konsep penjumlahan dan perkalian. Cara berpikir siswa pada tingkatannya menunjukkan kepada kita tentang kemajuan konservasi siswa sesuai dengan kelas terakhir mereka lalu. Perkembangan pemahaman dengan permainan, khususnya bermain satu rumah, merupakan usaha nyata untuk mendukung pembelajaran bilangan di sekolah dasar. Menggunakan permainan dalam proses pembelajaran, misalnya, pembelajaran matematika untuk

sekolah dasar dapat menjadi suatu program pelajaran matematika untuk anak-anak.

**Kata kunci:** *Membilang resultatif, bermain satu rumah, program matematika*

### ***Introduction***

Mathematics is a way of thinking (Reys, Robert E., Suydam, Marilyn N., & Lindquist, Mary M., 1984). It provides us with strategies for organizing, analyzing, and synthesizing data, largely but not exclusively numerical. That's why mathematics couldn't be seen as a concrete object in order to make it real when people are talking about it. Number becoming one thing that people always talk until now is an object for mathematics. Number on mathematics is an object used to count and measure. In early age of young children, the phenomenon of conservation of number reflects how children think. Moreover, we will come true to the fact of number sense for children when they used to solve their problem.

Traditional games can be the true example to show number used to support the rule of games in daily life in Indonesia. The games are exciting activities not only for the children, but also adults who need to get refreshing from their busy activities. Indonesia is the rich country from traditional games, but it's not clearly anymore to make sure many children to do play traditional games. Since many modern games come to Indonesia, many of them are gradually not to play the traditional games. They like to play modern games, such as PlayStation, online game, etc. in which children can do by their self without go outside of home (Nasrullah, 2011).

An impressive aspect of traditional games can be developed to support children thinking when they are learning is number. It is related with mathematics for children on primary level. Thus, number in traditional games is an interesting aspect that is helpful for children to encounter numerous situations that bring them into contact with sounds, symbols and meanings that relate to numbers (Treffers, 2001). Especially, if they were learning mathematics, they would do counting through playing game. Therefore, when they are in this situation, developing of number can be referring to build their sense of number. By exploring the knowledge that they have after playing, some *model-of* problems constructed into mathematics program is developed based on the result of game. The program in this case talked about experiment that is designed