

“1, 2, 3”
Guide for Instructors and Parents

by Nancy Lelewer

My special thanks to
Kathy, Wendy, Eric and Patti

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Preface

“1,2,3” is dedicated to children. The games were developed by children, beginning with my son, Eric. Eric wanted to play board games and constantly, or so it seemed, pestered me to play. Being a very “rational” grown-up, I marveled at his insistence as he seemingly refused to play by the rules and inevitably quit in frustration before the game was over. From the start of the game Eric would say he was going first, regardless of the procedure for determining who should be first; he would move his marker without spinning the spinner or drawing a card. When it was my turn, he said I took “too long”; when it was his turn, he sometimes moved my marker, or forgot which direction his marker should move, or counted the space on which his marker rested as space one.

In trying to teach Eric how to play specific board games, it was I who became frustrated. They all required an understanding of basic concepts such as left and right, sequence, deciding who is first, progression, “turn”, and winning. To fairly young children, some with learning disabilities and some on the Autism Spectrum these concepts are difficult to teach. Furthermore, some of the games were not well thought out and actually thwarted the teaching of these concepts. I decided to try to improve on this and thus began to develop a game of my own, playing it with children and revising it on the basis of their reactions. The children thought the game was fun and loved to play it. In watching their progress, I discovered it was also an instructional device. It helped the children learn some basic concepts we consider to be “as simple as 1,2,3”.

Since then and up to now, the “1,2,3” games have been used in classes by teachers and at home by parents. The age span of those having played one or all the games is from two years ten months to sixty years, with an I.Q. range from forty-five to one hundred forty-five.

The author personally has played the games with hundreds of individuals, the bulk of this group being “normal” children, ages four to seven. A brail version of the “1,2,3” games has been played by a totally blind adult and by a blind child. The author made a specially designed wooden version of the 1st game which was used for several months by three teachers at Perkins for two six-year old blind, deaf, mentally challenged youngsters who were unaware of people. They didn’t have enough tactile awareness that they would ever learn Braille. The game socialized them and was a tremendous break through. The games have been played with culturally deprived children ranging in age from four years to four years ten months, by mentally challenged but educable and trainable children, and by many who have learning disabilities.

Introduction

The “1,2,3” Guide for Instructors and Parents consists of nine games. It can be used as a teaching tool with children in prekindergarten, kindergarten, the early primary grades, and some special education classes. The games are based on a multisensory approach to learning, which involves the child both mentally and physically. They progress, sequentially, from simple concepts and matching skills to more abstract levels of understanding and performance. In the eighth and ninth games, the concept of strategy based on probability theory enters.

The order of the games corresponds to stages of growth through which each child passes in the process of learning quantitative concepts and logic. Although children’s growth patterns are similar, each child develops at a different rate and in different directions. The games have therefore been designed to provide learning opportunities applicable to different modalities, such as visual, oral, eye-and-hand skills, as well as verbalization, and they call for these skills at different levels of accomplishment. In playing the games, the child may perform at a high level in one modality and find difficulties in another.

Children differ in the length of time it takes them to pass from one performance level to the next and in the degree of difficulty or ease they experience while making the transition. Similarly, the same child may move rapidly through some levels yet progress more slowly through others.

Purpose of "1,2,3" Games

The object of this program is to achieve two things. First, it suggests to teachers some of the ways in which game format manipulative material can be incorporated into the curriculum; and second, it describes a sequence of stages through which children pass in the process of learning quantitative concepts and logic.

The “1,2,3” games can help to assist in children’s development of the following skills and concepts:

- *Spatial Orientation* – Where the child or item is in relation to another child or item; specifically, such concepts as “left”, “right”, “forward”, “backward”, “in front of”, “beyond”, “over”, and “next to”.
- *Matching* – Development of the ability to identify characteristics which define members of the same set or subset, either directly, as in the relation as to one toy car to another, or indirectly as in the relation of one toy car with a picture of one toy car.

- Developing both the concrete and abstract notions of ‘one after the other’ as in the cases of adding another car to a sequence of cars or moving a car forward by one space in a sequence of spaces
- *Basic Social Concepts* – Development of the child’s personal experience with and understanding of such concepts as: “fair play”, “rules”, “winning”, “losing”, “my turn and your turn”, and “sharing”.
- *Advanced Reasoning* – In games #6 through #9, more complex concepts and reasoning processes can be taught such as: elementary probability; strategy based on opponent’s actions and board position; and strategy based on probability, opponent’s actions and board position.

The component parts of the games can be identified both visually and by touch so that both normal children and those who are partially sighted or who have perceptual handicaps may play.

The age range of the series begins with three and four-year old’s and extends to adults. Generally speaking, the younger child cannot play the subsequent game if s/he cannot play the preceding game. The specific concepts and skills for playing each game and for thus getting ready to play the subsequent games are set forth in the following section.

Skills and Concepts to be Learned in Each Game

Each game in the program is structured to meet a specific need in the child’s development, and the teacher or parent will use their judgment in adapting the games to individual children and *the* particular situations. It is well to remember that the *most reliable guide* to the use of the games *is child*. As is true of all teaching tools, in the final analysis, it is the teacher’s understanding of how a child learns, coupled with the application of appropriate teaching methods and materials, that result in a successful learning experience for the child.

Before playing Game 1 it is important that children are able to correctly match the identical number of toy cars with the cards which picture one, two, and three cars, and also to identify the symbol “zero” when it appears on a card as meaning no cars. Do not begin Game 1 until the child is able to do this. For maximum understanding, it is recommended that the “1,2,3 Rule Book” be read prior to continuing on in this guide.

Game 1: The first game requires and reinforces the learning of basic definitions, matching skills and spatial relationships. *It is not important that the child be able to verbalize what he will do*, before playing the game. To perform a task and simultaneously verbalize what one is doing is difficult and may be impossible for the younger child. Game 1 specifically reinforces the following learning:

- Definitions consistently applied: colors (blue, red, green, black), shapes (star, square) relationships (left, right, first, last, face up, face down, next to) and numbers (one, two, three).
- Matching skills required: correctly matching the number of toy cars with the number of cars shown on the playing cards; matching the playing card showing zero with “no cars”; and matching colors, red to red, blue to blue.
- Basic concepts to be realized: “my turn and your turn”, “finished” (no more cars in the car container and all the spaces on the track filled), “winning”, “more than”, “less than”, “same”, “different”, “exact count”.

Game 2: Reinforces the learning associated with the first game, and introduces the following additional concepts:

- Sharing the spaces on the same track.
- Distinguishing “my side” and “your side” on the common track.

Game 3: This game played on the same board as game 1, introduces a difficult concept for younger children a single toy car moving a sequence of spaces rather than filling the spaces with a sequence of cars. The “finger method” assists the child in the transition. By placing his or her finger into the space from which his or her car starts out the child can refer to the card s/he drew without forgetting where his or her car was at the beginning of their turn and also learns not to count the space where his or her car was as space one when beginning to advance his or her car.

Game 4: While reinforcing all the definitions and concepts of the previous games, the concept of a single car moving a sequence of spaces is added to the shared single track and requires an additional skill of memory: which color car is the child’s own. Games 1 through 4 constitute the simple series of sequences, additive sequences, basic spatial relationships and concepts. They can be used by the teacher to assist in teaching basic arithmetic since the transition from concrete sets and sequences to their abstract representation has been partially accomplished.

Game 5: This game changes from the straight-line sequence with a set of ten to an oval track and a set larger than ten. For the first time, the behaviors of retrogression and substitution are introduced. Retrogression comes into play when a player must move their car back to a pit. Substitution enters when a player draws a flat tire card and finds an opponent's car in the pit. The player must then substitute their car for their opponent's and move the opponent's Car to the first space outside the pit. In addition, "last space" and "finishing on exact count" no longer correspond to the end of a linear sequence of ten as the track, for the first time, contains a sequence of more than ten and the beginning and ending space are the same.

Game 6: This game returns to the linear playing board and introduces two toy car playing pieces for each player. Winning requires that *both* cars complete the ten-space sequence and that they reach the end by exact count. Also introduced is the important concept of considering alternative decisions as *either* car may be moved when the player draws a card.

Game 7: The new concept of "blocking" is added by playing game 6 on a shared, straight track. While the concept is primarily intended for the easy transition of the young child to regular board games, the exercise of considering alternative decisions is further complicated and serves as an excellent exercise in beginning strategic thinking. The child must consider what his opponent does or might do.

Games 8 & 9: Returning to the oval track, game 8 combines all concepts and skills learned in the previous seven games and adds the use of specially marked dice which are substituted for the playing cards. Successful completion requires elementary strategic thinking regarding blocking, which toy car should be moved and, when one car has finished, which of the two dice should be rolled in order to move to more likely assure winning in the particular circumstances. For younger children, it is important to play game 8 (a single lap of the track) before moving to game 9 (two laps of the track) as in game 9 they frequently want to complete a lap by exact count and this frustrates their Ability to use the dice appropriately. For the older child, one may proceed from game 7 directly to game 9. In game 9, the teacher may use the game to introduce probability theory as an element in playing board games.