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ABSTRACT

This paper provides a brief literature review on the use of building blocks in the elementary school classroom and discusses classroom activities using blocks as they influence other subject areas. The paper includes work activities that develop mathematics and science skills, language arts and reading, and social sciences. Comments on these activities from experienced elementary school teachers are included. (JPB)

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"A Scholarly Article About Block Building"

By Keith Kelly

In this article I will be reviewing various sources of literature pertaining to the topic of block building. I will then introduce some activities that use blocks. Finally I will include some professional feedback I received for my block activities.

I would like to begin by admitting my initial interest in block building was not all too intense. Of course the subject interested me. I mean I played with blocks when I was young. On the other hand, I had no idea how incredibly beneficial such simple toys, blocks, could be particularly for an elementary school teacher such as myself until I began my research on this subject.

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Keith Kelly

ARTICLES ON BLOCKS

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In my research I came across very intriguing literature on the subject of block building. The Articles I used were: "What Kids Really Learn In Kindergarten" by Kathleen Cushman, "How To Prepare Your Child For College" by Marianne Modica, and "Ideas That Work With Young Children: How and Why To Teach All Aspects of Preschool and Kindergarten Math Naturally, Democratically, and Effectively (For Teachers Who Don't Believe In Academic Programs, Who Do Believe in Educational Excellence, and Who Find Math Boring To the Max)- Part 1" by Polly Greenburg. The books I used were, Block Building by Esther B. Starks, The Block Book by Elisabeth S. Hirsch and The Art of Block Building by Harriet M. Johnson.

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"What Kids Really Learn In Kindergarten" is an article that really clears up any misconceptions and informs the reader that early childhood classes are a lot more than a lot of play. The article explained that there is a good amount of play that goes on in the early childhood classes. On the other hand, the play is very often structured and usually in conjunction with a formal lesson. (Cushman p. 80 1995) This article also gave insight to the many useful ways that blocks can be used.

"How To Prepare Your Child For College" is an excellent article that gives a clear explanation of how the use of blocks assist children to cross the mental bridge of abstract thought concepts. This article gave excellent practical examples how to incorporate academic subjects into early childhood education so that the child could progress at his or her stage of development. One statement that stands out in my mind is "someone once said that play is the work of the child, and activities that seem like child's play to us are in reality essential to building a strong educational foundation". (Modica p. 32 1991)

Polly Greenburg's article has an incredibly long title but I feel it's appropriate since the article has a vast amount of information designed to incorporate mathematics into an entire early childhood curriculum This was an article I had to pace myself with. Every paragraph had an enormous amount of knowledge, I was afraid if I went too fast I would miss so much. One of the most interesting statements from this article was, "children's mental development is greater if their minds are

appropriately stimulated". (Greenburg p. 75 1993) Yes I know that the preceding statement is incredibly simple. I guess that's why I favor it so. It opened up my eyes just the same. When you think about it, agriculture is a pretty simple concept as well and look how it has changed the world in the last ten thousand years. Therefore, I am not one to underestimate simple concepts

BOOKS ON BLOCKS

Block Building by Esther Starks was without doubt my favorite book during my research of block building. I have to be honest and say that initially my favor for this book had to do with it's not so intimidating size. True it isn't very large but boy does it pack a punch. This was the most informative piece of literature I read during my research on block building. I had no idea there were so many uses for blocks. Starks first tells you how by playing with blocks a child can cross the threshold of solitary play to associative play to developing social skills with the goal of cooperative work to giving the child responsibilities. Block Building also informs the reader of the many different types of blocks. The book gives instructions on how to care for the blocks as well as the teacher's role.

The Block Book by Elisabeth S. Hirsch is yet another great guide to the universe of block building, covering all aspects of the use of blocks in the curriculum as well as a guide to

the teachers role. What I loved about this book is the web in the very beginning of the book that clearly maps out the uses of block building in the areas of, social studies, social development, art, language arts, science, mathematics and physical development.

The Art Of Block Building by Harriet M. Johnson is a small publication that gives a lot of great examples of how children can use blocks to enhance their cognitive growth. Of course the child would just think he or she is just having a lot of fun playing but we all know what is going on in their developing minds while they are making new discoveries through play.

BLOCK ACTIVITIES

Shortly after my introduction to the world of block building, I became inspired to create some of my own activities that use blocks to stimulate and engage the children's minds. To the best of my knowledge these activities are original.

MATH & SCIENCE

The first group of activities lend themselves very well to the math and science disciplines.

ACTIVITY ONE

My first activity in this category is simple. It is to

use the blocks as visual manipulatives to allow the student to count up by ones, ultimately to 100. For this activity I would recommend interlocking plastic blocks.

ACTIVITY TWO

The second activity I like to call "even and odd with partners". It is an exercise to enhance the students number sense by being able to categorize numbers into even or odd categories. Any blocks will do; the smaller the better. After the teacher establishes the concept of a pair, the activity is to then work with a random number of blocks and try to pair them all up with a partner. If they can all be paired up with a partner then the number of blocks is an even number. If there is one block that is not paired up then the number of blocks is an odd number.

ACTIVITY THREE

The third activity would be for the children to recognize the various shapes of the blocks that may be in your classroom through tactile and visual observations. The shapes may be cubes, cylinders, spheres, pyramid, squares, rectangles, triangles or circles.

ACTIVITY FOUR

The fourth and last activity in my math/science area is a categorizing activity. First the blocks could be categorized by size, then shape, perhaps they can be categorized by the material they are constructed out of.

LANGUAGE ARTS / READING

The next group of activities I geared toward the language arts/reading disciplines.

ACTIVITY ONE

The first activity for this category is for the students to become familiar with the letters of the alphabet by forming blocks into various letters of the alphabet. Initially the student will see the letter he or she is to form. As the child's skill evolves she or he will be able to hear the letter to be formed and then commence the activity.

ACTIVITY TWO

The second activity would require blocks with letters of the alphabet on them. With these blocks a child can pick one randomly from a pillow case. His or her responsibility would then be: a) to say the letter, b) to say the sound of that letter, c) and finally to say a word that begins with that sound.

ACTIVITY THREE

My final activity in this category would be for student's to spell out their names as well as simple sight words with alphabet blocks.

SOCIAL SCIENCES

The social sciences activities I developed were to have the children use plastic interlocking blocks to construct: 1) various transportation vehicles, 2) various types of buildings, 3) and various types of neighborhoods.

AN EVALUATION

To gain expert feedback with these activities I decided to seek out experienced educational professionals. I first came to Ms. Robin Vails who for the last thirteen years has been working for the Archdiocese of New York as a Kindergarten teacher in St. Ann's Catholic School located in the Bronx. Robin had a lot of interesting comments about the activities I had constructed and I was flattered that she liked my activities. One of the most interesting comments that Robin made was, "all subjects in early childhood are intertwined. It is very difficult to isolated subject areas at this level." She then went on to give me various examples of how my activities crossed subjects. She told me that my science activity of

"categorizing" is very much like a language arts "same or different" activity. Ms. Vails also told me that with the social studies activities of constructing various models includes language arts skills when a child is asked to show and tell about her or his model.

The next person I sought out was Ms. Rhonda Manus who for the last two decades has been a special education teacher and who is currently working at Brookside School in Ossining, New York as a math and reading resource room teacher at the second grade level. Ms. Manus complimented me for my activities and then said that she is a huge fan of any manipulatives. The reason being that children learn in many different ways and to use manipulatives such as blocks in a lesson would insure a better possibility that all of the children's learning styles are being included. Ms. Manus then went on to say, "if a child can see it, touch it and manipulate it that child can incorporate it into his or her knowledge".

In closing I would like to say that I truly learned a lot while working on this article. I had no idea what potential the use of blocks had on the learning process. Prior to writing this article I saw blocks as the idle objects that collected dust in the back of many classrooms. On the other hand, I now see them as a key to helping children construct their own knowledge.

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