The Effectiveness Of A program For Young Children Based On Activities In Live Situations On Integrated Development Of English And Mathematics

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Introduction:

The integrated approach in teaching can motivate learners in all ages. English is a means to present another subjects as; Science or Math etc. This approach makes the teacher measure the learners' progress in several skills at the same time.

The integration of particular content with language teaching is known as Content –Based Instruction. CBI is based on the assumption that language can be effectively taught through the medium of subject matter content. It is a methodological way which implies the total integration of language learning and the learnt content. It is leaving the traditional the foreign language teaching method .

The researcher found out that presenting Math in English is a problem at early age in the experimental schools in Egypt. The traditional method that depends repetition and memorization isn't effective at this early age. Hence, the researcher presents a program that contains Math in English using games, shapes In live situations.

The Problem of the Study:

The researcher tries to answer the main question:

"What is the effectiveness of a program based on activities in live situations on the integrated development of English and Math?"

Two questions are derived from the main question:

1- What is the effectiveness of a program based on activities in live situations on conceiving math concepts?
2- What is the effectiveness of a program based on activities in live situations on acquiring of English terms?

The Study Purpose:

1- The study presents a program of math concepts in English by using activities like; games, songs, shapes, blocks, sand and water, role playing in live situations.
2- Knowing to what extent the proposed program is effective in conceiving the math concepts and acquiring of English terms.

The Study Limitations:

1- **Human:** 30 preschool children whose ages ranges from 5 to 6.
2- **Time:** It stayed three months From September to November in 2016.
3- **Place:** The kindergarten of El-Sayda Khadiga Experimental School in Zahraa El-Maadi, El-Basateen and Dar El-Salam Administration.

The Study Tools:

1- "A pre/posttest" to compare the development of the control and experimental groups before and after applying the program.
2- "An observation form" to evaluate the performance of the children in the different activities in conceiving the math concepts and acquiring of English terms.

The Study Terms:

1- **Integration:** to combine two things or more things in order to become more effective.**(www.dictionary.cambridge.org)**

- Integration does not require that the parts give their own characters, nor to focus on their differences. This is the proper form of integration **(Fan, 2004).**

2- **Situations:** The settings in which the linguistic element occurs. Situations involve the people, events; and things thus the situation gives the context its social meaning. **(Soraya A El- Hadad, 1984:22)**

The Study Approach:

The researcher used the experimental design. She used a pre/posttest for the experimental group to know the effectiveness of the program.

The Study Procedures:

1- A survey of studies that related to teaching mathematics at early age.
2- A survey of studies that related to integration of mathematics and English as a foreign language at early age.
3- Designing the program and its tools.
4- Applying the pre-test.
5- Applying the program that contains mathematical subjects in English;
   a. Counting and numbers.
   b. Operations(addition and subtraction).
   c. Names of shapes(circle, square, triangle, and rectangle).
   d. Sorting different objects that are similar.
   e. Size(comparing two things; light/heavy, big/small, tall/short).
   f. Position of things(in, out, on, under, behind, in front of).

g. Sequence (according to: size, colour, and shape).

The program activities are in live situations.

6- Applying the observation form during the activities of the program.
7- Applying the post-test.
8- Conducting the statistical treatments.
9- Discussing the results, writing recommendations, and suggestions for further researches.

Theoretical Background and Review of Literature

First: The importance of Mathematics at early age:

Mathematics as ‘a human activity, a social phenomenon, part of human culture, historically evolved, and intelligible only in a social context’**.Hersh (1997)**

Mathematics is viewed not only as useful and as a way of thinking, seeing and organizing the world, but also as beautiful appearance and worthy of seeking to it **(Zevenbergen, Dole, & Wright, 2004).**

All children are viewed as having an ability to solve mathematical problems, make sense of the world using mathematics, and communicate their mathematical thinking. This shift demands a change in pedagogy – in particular it puts the teaching-learning relationship at the heart of mathematics.

The development of mathematical proficiency begins in the preschool years, and individuals become increasingly mathematically proficient over their years in educational settings. This implies that educators at the age of early childhood need to develop effective pedagogical practices that engage learners in high-quality mathematics experiences. There is a need to change what is related to curriculum content and presentation. In particular, developing a curriculum and how to achieve progressions in key aspects of mathematics are important. It is recognized that the mathematics education of young children extends beyond the walls of the classroom: family and the wider community can make a significant contribution to children's mathematical achievement.

(**Sheldon & Epstein, 2005)**

Children's early experiences of mathematics form the foundation for their future mathematics learning and success. Mathematics enables children to think logically, strategically, creatively and critically. Mathematical knowledge and skills provide building blocks for success in many areas of life and work **(Ministry of Education, 2015).**

New Zealand and international research on children's learning in the early years confirms the importance of early experiences in mathematics for future educational success **(Duncan, 2007).**

New Zealand's Competent Children study has followed the development of a group of learners from early childhood education, through school and into adulthood. It shows that at age 10, the quality of early childhood education still influences children's competencies that lead to a successful adulthood, and that mathematical ability is one of the most influential factors. The study shows that most children acquire basic mathematical knowledge and skills before the age of eight years. **(Duncan, G. & Murnane, R., 2011)**

Second: The key mathematic subjects that young children should learn.

The NAEYC and NCTM (2002) suggested that foundational mathematics curriculum focus on five content areas:

1. Algebra.
2. Number and Operations.
3. Geometry and Spatial Sense.
4. Measurement.

5. Data Analysis and Probability.

with the strongest focus on Number and Operations, and Geometry

(NAEYC and NCTM ,2002)

Early mathematical concepts that have been found to specifically relate to later math achievement are included in the Number and Operations area, particularly including the mastery of number sense **(Groffman, 2009; Jordan et al., 2007; Robinson, Menchetti & Torgesen, 2002; Vukovic, 2012).**

Strands of Early Mathematics

Te Aho Tukutuku outlines six strands of early mathematics:

1. **Pattern -** the process of exploring, making and using patterns.
2. **Measuring** - answering the question "How big is it?"
3. **Sorting** - separating objects into groups with similar characteristics.
4. **Locating** - exploring space or finding or 'locating' something, such as a place(location), or an item in space.
5. **Counting and grouping** - the process for working out the answer to a question about "How many?" Grouping involves putting things together.
6. **Shape** - naming shapes and identifying the unique specific properties or features of shapes.**(www.ero.govt.nz,** 2016**)**

Third: Mathematics Methodology at Early Age

1- Through Play.

The importance of play as a learning process for young children, it is essential for good mathematics pedagogy .

There are three types of play in which children engage with mathematics:

1-sensorimotor play; involves learning and repeating action sequences, such as sucking, grasping, clapping, or pouring water..

2- symbolic or pretend play; copying what he has seen at home..

3- Constructive play; children manipulate objects to make something.

(Sarama and Clements ,2009)

(NCCA, 2009) promotes a range of different types of play, i.e., ‘creative’, ‘games with rules’, ‘language’, ‘physical’ and ‘pretend’. Although not all of the types of play contribute in their own way to children’s mathematical learning ,they can offer valuable opportunities for playful mathematical experiences.

Play provides a ‘bridging tool to school’ that is very significant **(Brostr◌m, 2005).**Teachers need to integrate mathematics learning within children’s play activity. For instance, the development of children’s spatial-geometric, reasoning, and their geometric and measurement skills across the transition period can be achieved through a systematic approach to the teaching of related concepts. This approach allows for the integration of problem-solving skills and content knowledge **(Casey, 2009).**

Play with blocks provides the context within which teachers can teach the key aspects of spatial reasoning. Children’s early experiences with blocks includes open-ended play, but over a period of time teacher-guided activities can serve to focus the children on sequenced spatial problems. As children’s experiences with the blocks grow, and as they engage in various problem-solving activities, initial concepts are strengthened. As children solve mathematically-related problems they should be encouraged to use a range of informal approaches and problem-solving strategies with the intention of guiding them. As their understanding increases, towards the most effective strategies; they should be encouraged to talk about and compare their strategies with those used by others and learning experiences should target critical ideas

(Fuson, Kalchman, & Bransford, 2005).

2-Through Live Situations

Anthony and Walshaw identify a range of features of effective pedagogy based on people, relationships and the learning environment. These features are seen to enhance the development of young children's mathematical identities, dispositions and competencies.

Everyday activity, including play, is seen to provide a rich context for learning but, as they observe, 'unstructured play, by itself, is unlikely to provide sufficient support for young children's mathematical development' .

Providing for children's optimum development through their access to explicitly mathematical experiences, and for their engagement in interactions which support and extend their mathematics learning, are both critical dimensions of the learning environment. The development of an increased focus on mathematical activities, games, books and technology are some of the experiences that are seen to enhance opportunities for learning. The research indicates that educators' increased mathematical awareness enables them to recognize and respond to opportunities for developing all children's ideas and for enhancing mathematics learning.

The importance of interactions by adults with children engage children in discussions which develop their abilities to express their thinking and to conjecture, predict and verify. Differences in home experiences of children, with some families, is seen as an issue of which educators need to be aware. The necessity of acknowledging children's mathematics learning in the home and the community and of working with families to understand and build on this, is emphasized as a key aspect of pedagogy.

(Anthony & Walshaw, 2007: 10)

Ginsburg et al., 2006) (Perry & Dockett, 2008) show that children learn mathematical language through discussion in playful situations, e.g., shopping, cooking or number stories.

When children engage in play they can use objects to symbolize or create something **.** Games with rules include activities where children follow a specific set of instructions or rules. This provides opportunities for collaborative learning and for the development of mathematical activities including reasoning, problem- solving and ordering. These activities can include people games with children following directions such as ‘Simon Says’, games measuring time such as ‘What time is it Mr Wolf’, movement games and number and board games. For example, in ‘Simon Says’ children might be asked to clap three times, or take two steps then one step, altogether three steps. Accommodations should be made for language levels. In invented games children can select appropriate manipulatives to support their learning e.g., dice, playing cards and number cards. Through doing this, children can use mathematical language associated with the new object. Through counting

concrete materials in playful contexts number language can be extended.

The Learning Environment:

- The starting point for teaching is children’s current knowledge .
- Classroom activity and dialogue focus explicitly on mathematical ideas .
- Tasks are designed based on children’s current interests, but they also serve the long-term learning goals.
- Children are given opportunities to engage in justification, argumentation and generalization. In this way, they learn to use the language of mathematics.
- A wide range of children’s everyday activities, play and interests are used to engage, challenge and extend their mathematical knowledge and skills.
- Learning environments that are rich in tools support all children’s mathematical learning.
- Children are provided with opportunities to learn in a wide range of imaginative and real-world contexts, some of which integrate and connect mathematics with other activities and other activities with mathematics.

- Investigative-type activities that stem from children's interests and questions, give rise to the creation of models of the problem which can be generalized and used in other situations.
- Contexts that are rich in perceptual and social experiences are used to support the development of problem-solving and creative skills.
- Children experience opportunities to learn in teacher-initiated group contexts, and also from freely chosen but potentially instructive play activities.
- The everyday activities such as cooking, playing with mathematical shapes and telling the time is recognized and harnessed.
- Opportunities are balanced for children to learn in small groups, in the whole-class group and individually.
- Teaching is based on appropriate sequencing. Whilst learning paths are used to provide a general overview of the learning continua of the group of children, this is tempered with the knowledge that children do not all progress along a common developmental path.
- Planned and spontaneous learning opportunities are used to promote mathematics learning. **(((NCC,2014)**

Comment:

The current research agrees with the following studies in the influence of playing on acquisition of the mathematic skills: ©

1- **(Ainley, 1990, Bjorklund et al., 2004; Burton, 2010; Cutler et al., 2003; Gerdes, 2001).**The results were:

- Games can provide a meaningful context to work on fundamental math skills (e.g., counting, addition, subtraction).

- Encouraging children to understand the element of chance (e.g., games such as Go Fish), and allow children opportunities to communicate .

-Describing how playing mathematical games assists children in learning math skills through the natural context of playing games (e.g., one to one correspondence and counting dots on the dice). It creats a natural and meaningful context to explore and communicate mathematical concepts and ideas.

2- (**Van Oers ,2003)**.The results were:

Young children exposed to a play-based curriculum scored significantly higher than national norms for mathematics.

5-**3- (van Oers, 1996):** The results were:

Using mathematics in the play of children four- to seven-years-old was frequent enough that there were more teaching opportunities than a teacher could possibly notice. Although the study used different mathematical categories than we have and observed just one dramatic play setting—a shoe store—it found children engaged in a wide variety of mathematical activities: classification, counting, one-to-one correspondence, measuring, estimating, solving number problems, simple arithmetic, quantitative concepts seriation and conservation., number words, space-time, measurement, and money.

ISSN 1649-3**ulum and Assessment**

<u>Fourth:</u> Integration of English and Mathematics.

- **There are six beliefs in integrated English(IE)**

-Integrating content with language,

-Learning English at an early age,

-Using English as the medium of instruction

- Focusing on listening and speaking first,

-Learning English subconsciously and developing fully the abilities of English learners **(Jianfang Xiao, 2016)**.

- **Five Shifts in IE, from Shallow Teaching to Deep Teaching**

IE encourages deep teaching and has five shifts:

-The language of instruction shifts from the learners' native language into their target language.

- The teaching model shifts from reading new words first into doing activity first.

-The teaching unit shifts from single words into full Sentences.

-The teaching priority shifts from knowledge into ability

-The learning system shifts from separated learning into integrated learning. **(Jianfang Xiao, 2016)**

- **Seven Teaching Principles in IE**

There are seven teaching principles in IE:

- The principle of theme and activity-based learning.
- The principle of listening and speaking first, supplemented by reading and writing.
- The principle of operant reinforcement.
- The principle of direct learning and spontaneous acquisition.
- The principle of interest orientation and active participation.
- The principle of focusing on practical use of English.
- The principle of quick pace and high intensity in classroom teaching. **(Yuan, 2005)**

- **Developing Fully the Abilities of English Learners**

- IE focuses on the full development of a learner's language abilities, and stresses language teaching satisfying the requirements of children's language development.

- It advocates taking English as an entire system instead of a collection of vocabulary and grammar. This can liberate foreign language teaching from the teaching methods of rote learning, and then teach more for meaning and less for forms. This is the essence of the communicative language teaching (CLT) approach.

- IE stresses the full development of language skills, especially the communicative competence of learners. IE highlights thematic activities (teaching activities must center on a topic), the interest of learners, and the characteristics of life. To create a natural environment of English learning, such teaching methods as Total Physical Response (TPR), Communicative Language Teaching (CLT) Approach, Community Language Learning, Natural Approach and CLIL are often used in IE classes. For example, IE advocates the use of.

Natural Approach in classes, and admits a “silent period” which could last a few months, because learners are scared when introduced to a foreign language. During this silent period, output of language is not required. Therefore, learners “absorb language without the stress of audio-lingual-type listening and repeating drills” **(Oebel, 2001).**

The main purpose of IE is to develop learners' communicative competence in their foreign language in addition to their native language. It fosters bilingualism, sensitivity to other cultures and an opening to the perception of being a world citizen. Additional goals are the cognitive advantages to bilingualism and increased sensitivity to and understanding of other cultures. **(Jianfang Xiao, 2016)**

Comment: The current research agrees with the following studies in the importance of integration of English and mathematics:

1- **Jennings, Jennings, Richey, and Dixon-Krauss (1992)**: found that after a storybook reading with an implicit mathematical focus and complementary activities, vocabulary skills and interest in mathematics improved in typically developing kindergarteners

2- **(Conaway & Midkiff, 1994):** They found improving the children's mathematical knowledge in the area of fractions, estimation, math vocabulary , classification and number combinations.

3- (Casey, 2004) when compared to hands-on activities alone.

The integration of literature with mathematics has also been used for improving kindergartener's performance of measuring length .

4-(Casey, Erkut, Ceder, & Young, 2008; Rosen & Hoffman, 2009) They found improving the children's mathematical knowledge in the area of Geometry.

5-(**Skoumbourdi and Mpakopoulou,2011)**: Reading a storybook with KG children specially picture book and related activities, they found developing kindergarteners in their abilities to identify solid shapes and provide real-life examples of the plane figures.

6- (Van den Heuvel-Panhuizen, & Iliada, 2011) They found that integrating mathematics within children's literature increases interest in mathematics and improves their mathematical knowledge in the areas of measurement.

7-**Katherine B. Green(2013)**: Investigated one intervention integrating mathematics within children's literature for preschoolers with disabilities. After the intervention, the children in the treatment group scored significantly higher in the areas of total math ability, quantity comparison, and one-to-one counting fluency than the comparison group. Implications include possibilities for further integrating mathematics within literature for preschoolers with disabilities, the benefits of intentional storybook selection for this type of intervention, and the recognition of the importance of introducing mathematical topics to preschoolers with disabilities .

Statistical Analysis of Findings

The researcher tried to answer the main question " ***"What is the effectiveness of a program based on activities in live situations on the integrated development of English and Math?"***

The researcher used the following statistical analysis for testing the hypotheses :

1- (Wilcoxon) test for related samples.

2-(Mann-Whitney) U Test for independent samples.

1- The First Hypothesis:

There are statistically significant differences at 0.01 level between the control and experimental group mean ranks in the post test of conceiving the conception and acquisition of the terms in favor of the experimental group.

Table (1)

Test	Group	N	Mean Ranks	Sum ranks	Mann-Whitney	Z	Sign
Conceiving Concepts	Experimental	15	23.00	345.0	0.00	4.689	Sig.at 0.01
	Control	15	8.00	120.0			
Acquisition of terms	Experimental	15	22.9	344.0	1.00	4.748	Sig.at 0.01
	Control	15	8.07	121.0			

Table showed that children of the experimental group conceived the presented concepts and acquired the English terms better than the control group children. **We can deduce that**: the presented program was effective. Activities in live situations make children excited and they acquire English terms easily.

2- The Second Hypothesis :

There are statistically significant differences at 0.01 levels between the control and experimental groups mean rank scores in the post test of conceiving the mathematic concepts and acquisition of the terms in all subjects of program in favor of the experimental Group.

Table (2)

Test	Group	N	Mean Ranks	Sum ranks	Mann-Whitney	Z	Sign
Conceiving counting concept	Experimental	15	22.5	337.5	7.5	4.78	Sig.at 0.01
	Control	15	8.5	127.5			
Acquisition of counting terms	Experimental	15	8.2	342	3	4.65	Sig.at 0.01
	Control	15	8.07	123			
Conceiving operations concept	Experimental	15	21	315	30	3.98	Sig.at 0.01
	Control	15	10	150			
Acquisition of operations terms	Experimental	15	22.93	344	1	4.77	Sig.at 0.01
	Control	15	8.07	121			
Conceiving shapes concepts	Experimental	15	20.8	312	33	3.79	Sig.at 0.01
	Control	15	10.2	153			
Acquisition of shapes names	Experimental	15	22.1	331.5	13.5	4.42	Sig.at 0.01
	Control	15	8.9	133.5			
Conceiving sorting concept	Experimental	15	21.5	322.5	22.5	4.32	Sig.at 0.01
	Control	15	9.5	142.5			
Acquisition of sorting terms	Experimental	15	20.4	306	39	3.46	Sig.at 0.01
	Control	15	10.6	159			
Conceiving size concepts	Experimental	15	18.5	277.5	67.5	2.69	Sig.at 0.01
	Control	15	12.5	187.5			
Acquisition of size terms	Experimental	15	22	330	15	4.17	Sig.at 0.01
	Control	15	9	135			
Conceiving position concepts	Experimental	15	21.5	322.5	22.5	4.4	Sig.at 0.01
	Control	15	9	135			

Acquisition of position terms	Experimental	15	8.2	342	3	4.65	Sig.at 0.01
	Control	15	9.5	123			
Conceiving sequence concept	Experimental	15	20.17	302.5	42.5	3.1	Sig.at 0.01
	Control	15	10.83	327.5			
Acquisition of sequence terms	Experimental	15	21.83	327.5	17.5	4.9	Sig.at 0.01
	Control	15	9.17	137.5			

The (Mann Whitney) results showed that the performance of the experimental group in conceiving the concepts and acquisition of terms is higher than the control group in the sub points of the post achievement test.

We can deduce that : Depending on the activities in live situations is effective because children deal with everything manually.

3. The Third Hypothesis.

There are statistically significant differences at 0.01 level between the control and experimental groups in mean rank scores in the observation form of conceiving the mathematic concepts and acquisition of the terms in favor of the experimental group.

Table (3)

Test	Group	N	Mean Ranks	Sum ranks	Mann-Whitney	Z	Sign
Conceiving Concepts	Experimental	15	23	345	0	4.68	Sig.at 0.01
	Control	15	8	120			
Acquisition of	Experimental	15	22.8	344	1	4.72	Sig.at 0.01

terms	Control	15	8.03	121			

The (Mann Whitney) results showed that the hypothesis is achieved. The observation form of conceiving mathematic concepts and acquisition of terms are much higher in the experimental group than the control group. This can be interpreted by the high performance during activities that makes them more efficient in acquisition English terms.

4. The Fourth Hypothesis:

There are statistically significant differences at 0.01 level between the control and experimental groups mean rank scores in the observation form of conceiving the mathematic concepts and acquisition of terms of all the program subjects in favor of the experiment group.

Table (4)

Test	Group	N	Mean Ranks	Sum ranks	Mann-Whitney	Z	Sign
Conceiving counting concepts	Experimental	15	20.5	307.5	37.5	3.73	Sig.at 0.01
	Control	15	10.5	157.5			
Acquisition of counting terms	Experimental	15	22.9	343.5	1.5	4.78	Sig.at 0.01
	Control	15	8.1	121.5			
Conceiving operations concepts	Experimental	15	21.5	322.5	22.5	4.24	Sig.at 0.01
	Control	15	9.5	142.9			
Acquisition of operations terms	Experimental	15	22.93	344	3	4.65	Sig.at 0.01
	Control	15	8.067	121			
Conceiving shapes concepts	Experimental	15	20.73	311	33	3.79	Sig.at 0.01
	Control	15	10.27	154			
Acquisition of shapes names	Experimental	15	22.23	333.5	13.5	4.42	Sig.at 0.01
	Control	15	8.77	131.5			

Conceiving sorting concept	Experimental	15	22.5	337.5	7.5	4.92	Sig.at 0.01
	Control	15	8.5	127.5			
Acquisition of sorting terms	Experimental	15	20.83	312.5	39	3.46	Sig.at 0.01
	Control	15	10.17	152.9			
Conceiving size concepts	Experimental	15	18.5	227.5	67.5	2.69	Sig.at 0.01
	Control	15	12.5	187.5			
Acquisition of size terms	Experimental	15	22.13	332	13	4.29	Sig.at 0.01
	Control	15	8.87	133			
Conceiving position concepts	Experimental	15	21.5	322.5	22.5	4.4	Sig.at 0.01
	Control	15	9.5	142.5			
Acquisition of position terms	Experimental	15	21.5	322.5	22.5	4.32	Sig.at 0.01
	Control	15	9.5	142.5			
Conceiving sequence Concept	Experimental	15	20.17	302.5	42.5	3.1	Sig.at 0.01
	Control	15	10.83	16.25			
Acquisition of sequence terms	Experimental	15	22.03	330.5	14.5	4.27	Sig.at 0.01
	Control	15	8.97	134.5			

The (Mann Whitney) results related to experimental and control groups in post application in sub points of the observation form showed that the results are in favor of the experimental group in the different activities. This is because of practice the activities in live situations.

5. The Fifth Hypothesis.

There are statistically significant differences at 0.01 level between rank scores means of the experimental group in the pre/post application of test in favor of the post test.

Table (5)

The results of (Wilcoxon) related to the experimental group in applying the pre and post applications of achievement test and its sub items.

Test		N	Mean Ranks	Sum ranks	Z	Sign
Counting concepts	Negative ranks	0	0	0	3.25	Sig.at 0.01
	Positive Ranks	13	7	91		
	Ties	2				
	Total	15				
Counting terms	Negative ranks	0	0	0	3.57	Sig.at 0.01
	Positive Ranks	15	8	102		
	Ties	0				
	Total	15				
Operations concepts	Negative ranks	0	0	0	3.35	Sig.at 0.01
	Positive Ranks	14	7.5	105		
	Ties	1				
	Total	15				
Operations terms	Negative ranks	0	0	0	3.5	Sig.at 0.01
	Positive Ranks	15	8	120		
	Ties	0				
	Total	15				
Shapes concepts	Negative ranks	0	0	0	3.77	Sig.at 0.01
	Positive Ranks	15	8	120		
	Ties	0				
	Total	15				
Shapes terms	Negative ranks	0	0	0	3.63	Sig.at 0.01
	Positive Ranks	15	8	120		
	Ties	0				
	Total	15				
Sorting concept	Negative ranks	0	0	0	3.69	Sig.at 0.01
	Positive Ranks	15	8	120		
	Ties	0				
	Total	15				

Sorting terms	**Negative ranks**	0	0	0	3.5	Sig.at 0.01
	Positive Ranks	13	7	91		
	Ties	2				
	Total	15				
Size concepts	**Negative ranks**	0	0	0	3.07	Sig.at 0.01
	Positive Ranks	11	6	60		
	Ties	4				
	Total	15				
Size terms	**Negative ranks**	0	0	0	3.49	Sig.at 0.01
	Positive Ranks	15	8	120		
	Ties	0				
	Total	15				
position concepts	**Negative ranks**	0	0	0	3.87	Sig.at 0.01
	Positive Ranks	15	8	120		
	Ties	0				
	Total	15				
Position terms	**Negative ranks**	0	0	0	3.74	Sig.at 0.01
	Positive Ranks	14	7.5	105		
	Ties	1				
	Total	15				
Sequence concepts	**Negative ranks**	0	0	0	3.24	Sig.at 0.01
	Positive Ranks	13	7	91		
	Ties	2				
	Total	15				
Sequence terms	**Negative ranks**	0	0	0	3.46	Sig.at 0.01
	Positive Ranks	15	8	120		
	Ties	0				
	Total	15				
Concepts totally	**Negative ranks**	0	0	0	3.42	Sig.at 0.01
	Positive Ranks	15	8	120		
	Ties	0				
	Total	15				

Terms totally	**Negative ranks**	0	0	0	3.43	Sig.at 0.01
	Positive Ranks	15	8	120		
	Ties	0				
	Total	15				

The hypothesis was achieved. The researcher concludes that the differences are significant at 0.01 level in the sub points of the test; hence the proposed program is effective in all its points and the children acquired the required terms. This is because of practicing every activity by themselves. The live situations make them never forget what they learn. This means that the children's performance after learning the program is better than it was before activities in the test.

Recommendations :

1. The KG teachers should present mathematics for children in live situations like: playing roles during presenting mathematic operations.
2. Using different kinds of activities to present the concept like: songs and games to present numbers.
3. The children should learn the foreign language in communicative ways; during the games and different activities.
4. Children should practice everything himself.

Suggestions for Further Researches:

1. Investigating the effectiveness of pattern and using blocks on acquisition of English and Math at early age.
2. Knowing the effective activities that the teacher can use to present dozens to KG children.
3. Investigating the effectiveness of computer in presenting mathematic concepts to KG children.

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