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Procedia - Social and Behavioral Sciences 116 (2014) 4062 - 4068

5<sup>th</sup> World Conference on Educational Sciences - - WCES 2013

# Investigation of "orientation and preparatory studies" of mathematics and social studies activities in terms of basic skills

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#### Abstract

In this study, appropriateness of acquiring basic skills are examined through the "orientation and preparatory studies" in the courses of mathematics and life sciences in the curriculum 1<sup>st</sup> grade. No study has been encountered in the literature yet regarding the evaluation of the orientation and preparatory program that underwent a short preparatory process such as three months and put into effect in 2012-2013 education years. In line with the findings obtained from the study, the orientation and preparatory program requires arrangement and improvement in terms of skill, attainment and development domains. Thus, it is considered that the skills, attainments and development domains that are specified in our study shall be exemplary to the development of the program.

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## 1. Introduction

Rather than directly initiating reading and writing activities in the 1<sup>st</sup> grade of elementary school, through orientation and preparatory activities, ensuring that students start school in a sound manner has been set as an objective. Accordingly, within a period of twelve weeks, activities called orientation and preparatory activities have been organized. The prepared activities have three basic objectives: The first is the facilitation of the orientation of new beginner students at primary school to the school, their peers, their teachers, the second is laying the foundation for reading and writing activities through preparatory activities for 1<sup>st</sup> grade elementary studies, and the third is to deal with Social Studies, Mathematics, Visual Arts, Music, Play and Physical Activities curriculum attainments at certain rates (MEB, 2012). The efficiency of knowledge and skills provided in the 1<sup>st</sup> grade of elementary school is directly proportional to the quality of the education provided and thus, the activities. The orientation activities introduced with the changes in the education system in the 2012-2013 academic period has the characteristics of being an introduction for the development of the skills that are desired to be acquired by students. The social studies and mathematics activities provided in the orientation and preparation guide are of great significance in terms of the courses they shall receive in the future and involves an orientation and preparation for the mathematics and social studies course. In this context, the purpose of the study is to investigate Mathematics and Social Studies activities

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under orientation and preparatory activities in the 1<sup>st</sup> grade of elementary education in terms of acquiring basic skills. Answers to the following questions have been sought in the study:

- 1. How is the development domain, basic skills and attainments of social studies activities in the orientation and preparatory process?
- 2. How is the development domain, basic skills and attainments of mathematics activities in the orientation and preparatory process?
- 3. How is the evaluation of social studies and mathematics activities in the orientation and preparatory process in terms of basic skills?

#### 2. Method

The study was prepared based on the descriptive research method. According to this method, 33 mathematics activities and 45 social studies activities in the orientation and preparatory process were used in data collection. The activities were descriptively examined and analyzed in terms of development domains (Psychomotor Domain, Social-emotional Domain, Language Domain, and Cognitive Domain), basic skills, and attainments. Tables of the attainments, skills, and development domains of activities in the orientation and preparatory curriculum were prepared and preschool, 1<sup>st</sup> Grade Elementary Social Studies, and 1<sup>st</sup> Grade Elementary Mathematics curriculum were taken as a basis (MEB, 2005: 5-27; Okul Öncesi Eğitim Programı (36-72 aylık çocuklar için), nd.).

## 3. Findings

## 3.1. Findings regarding the first problem

The activities were analyzed for the purpose of answering the question of "How is the development domain, basic skills and attainments of social studies activities in the orientation and preparatory process?" and Table 1 was composed.

Table 1. Analysis of Social Studies Activities in the Orientation and Preparatory Process Name Of Activity Development Domains Attainment Hurray! We Started Schoo Social-Emotional Domain Orientation to the school environment 2.Communication 1.Social-Emotional Domain What Is In My Bag? Communication 1. Selects lesson tools that shall be used 2. Psychomotor Domain 2. Gets acquainted with classroom items and uses them Self-care We Are Making Puppets 1 Social-Emotional Domain Selects visual art materials that s/he shall use 2.Psychomotor Domain 3. Cognitive Domain 1. Social-Emotional Domain Self-knowledge-personal Gets to know him/herself by being aware of his/her physical MIRROR GAME 2.Psychomotor Domain development monitoring characteristics and introduces himself/herself 3. Cognitive Domain My Toy And I 1.Social-Emotional Domain Self-knowledge-persona Behaves appropriately when participating in the games of 2. Cognitive Domain development monitoring friends, when establishing games, and playing Guess Who I Am 1.Social-Emotional Domain 1. Communication Behaves appropriately when participating in the games of 2. Participation, sharing, teamwork friends, when establishing games, and playing and collaboration Whilst Playing Games 1.Social-Emotional Domain Behaves appropriately when participating in the games of Participation, sharing, teamwork and 2.Psychomotor Domain collaboration friends, when establishing games, and playing What Is It Called 1.Social-Emotional Domain Verbally expresses things that need to be done in order to Communication 2. Psychomotor Domain establish good relations with friends. Decides what s/he enjoys doing. 2. Psychomotor Domain 2. Listens to teachers and friends without interrunting Communication Colorful Is Starting School 1.Social-Emotional Domain Communication 1. Notices feelings and gets know him/herself and expresses it. 2. Notices the feelings towards people around him/her and expresses them appropriately 1. Social-Emotional Domain Communication Decides what s/he can do with ease and what s/he enjoys doing We Are Together 2. Psychomotor Domain Decision-making 3. Cognitive Domain Reasoning The Rules Of Our Class 1. Social-Emotional Domain Communication 1. Participates in school and classroom rule determination activities and obeys these rules. Ethical behavious 2. Listens to teachers and friends without interrupting Cut And Make Works Psychomotor Domain Creative thinking

Let's Be Clean	Social-Emotional Domain	Self-care	Determines what s/he can do to ensure personal care.
I Clean With A Sponge We Are Dining	Cognitive Domain	Self-care Self-care	Determines what s/he can do to ensure personal care.  1. Obeys hygiene and complies with good manners during nutrition breaks.
			<ol> <li>Distinguishes what needs to be done before and after nutrition breaks and demonstrates behavior complying with good manners.</li> </ol>
My Healthy Food List	Psychomotor Domain	Self-care	Explains the relation between healthy growth and development and personal care, sports, and a balanced and regular diet
Fruit Salad	Psychomotor Domain	Self-care	Explains the relation between healthy growth and development and personal care, sports, and a balanced and regular diet
What Do I Feel?	Social-Emotional Domain	Guessing Communication	Sees the differences in texture in objects.
The Treasure In My Sack	Cognitive Domain	Guessing	Recognizes various sounds in his/her environment, distinguishes differences between them, and expresses these in a unique manner.
The 29 <sup>th</sup> Of October We Are Celebrating The 29 <sup>th</sup> Of October	Psychomotor Domain Social-Emotional Domain		Becomes willing to learn about Ataturk.  Participates in preparations for celebrating National Holidays with joy.
Ataturk Take A Walk With Butterflies	Social-Emotional Domain     Psychomotor Domain	Correctly perceiving time and space	Becomes willing to learn about the life of Ataturk Uses basic concepts regarding position.
0.1.40	3. Cognitive Domain Psychomotor Domain		Participates in preparations for celebrating National Holidays
October, 29 Poem My Family	1.Social-Emotional Domain		with joy.  Gets to know and introduces family members.
Work Sharing	1.Social-Emotional Domain	Research	Investigates the cooperation and distribution of duties in his/her family, indicates examples from daily life concerning solidarity.
Let's Solve Our Problem	1.Social-Emotional Domain	Problem solving	Notices problems occurring at school, acknowledges that every problem encountered has more than one solution.
Ataturk With Photos	Social-Emotional Domain     Psychomotor Domain     Cognitive Domain	Creative thinking	Asks question on the reason of the Ataturk picture, Turkish Flag, national Anthem, and Ataturk's address to the Turkish Youth being present in the classroom.
We Can Make Mistakes	Social-Emotional Domain     Psychomotor Domain	Guessing Reasoning	Acknowledges that s/he and her friends can make mistakes while playing.
	*	Creative thinking	
My Right And Left	Social-Emotional Domain     Psychomotor Domain	Creative thinking	Uses basic concepts concerning position in order to find the location of the class and his/her desk.
Four Seasons	Psychomotor Domain	Creative thinking	Notices changes in the lives of living things depending on the changes in seasons
Four Seasons In A Year	Social-Emotional Domain	Recognition of the basic concepts of science	Notices changes in the lives of living things depending on the changes in seasons
What Colors Remind Me	Social-Emotional Domain	Recognition of the basic concepts of science	Notices the variety of colors in nature by observing living creatures on land and in the sky.
What Is Your Opinion?	Psychomotor Domain	Research	Gets to know and expresses him/herself by noticing his/her emotions.
Guess My Feeling	Social-Emotional Domain	Emotion management	Gets to know and expresses him/herself by noticing his/her emotions.
What Is Happening To My Body?	Social-Emotional Domain	Creative thinking	<ol> <li>Gets to know and expresses him/herself by noticing his/her emotions.</li> </ol>
			<ol><li>Notices the feelings felt for people around him/her and expresses these appropriately.</li></ol>
The Expression On My Face	Social-Emotional Domain	Emotion management	expresses these appropriately.  Gets to know and expresses him/herself by noticing his/her emotions.
Who Feels What?	Social-Emotional Domain     Psychomotor Domain	Emotion management	Gets to know and expresses him/herself by noticing his/her emotions.
The Transformation Of The Frog	Social-Emotional Domain     Payahamatar Domain	Emotion management	Distinguishes and orders the stages of change in living things
What Is In My Basket	Psychomotor Domain     Social-Emotional Domain     Psychomotor Domain	Research	Knows and guesses the properties of fruits.
I Also Have An Opinion	Social-Emotional Domain     Psychomotor Domain     Psychomotor Domain	Guessing	1. Gets to know and expresses him/herself by noticing his/her emotions.
			Notices the feelings felt for people around him/her and     expresses these appropriately.
Games Of Our Elders	Social-Emotional Domain	Emotion management	expresses these appropriately.  Investigates the games played by family elders when they were small and notices the difference by comparing these games with the games s/he played by friends.
		Research	

When the social studies activities in the orientation and preparatory process were examined, it could be observed that it was prepared in conformity with 14 separate skills. The social studies activities in the program were mostly prepared for the purpose of developing the skills of communication, self-care, and creative thinking. It could be observed that the activities were prepared with the combination of Preschool and 1<sup>st</sup> Grade attainments. In this context, it has been asserted that there are a total of 21 activities addressing the psychomotor development of students. It has been determined that a total of 32 activities that could develop social and emotional development were associated with attainments. It is striking that the 13<sup>th</sup> and 14<sup>th</sup> activities under the social studies activities were arranged contrary to the logical ordering of the activities. While classroom rules were being addressed in the orientation and preparatory program, it was moved onto the 13<sup>th</sup> article titled "Weird Animals", which is not among the preschool and 1<sup>st</sup> grade attainments. In this context, it was determined that there was no transition between

activities. It can be observed that the visual in the activity titled "We are Celebrating October 29" was not suitable for the acquisition of attainments. In the provided visual, further to the absence of the picture of Ataturk, it is not certain where the concerned celebration was held or what type of celebration it is (end of year ball, birthday celebration etc.). Based on this, it can be recommended that there is a photo regarding national holidays in the 23<sup>rd</sup> activity. The activity titled "take a walk with butterflies" appears to be an activity stranded between activities mostly addressing the subjects of Ataturk and October 29. The purpose of this activity is to have students attain the skill of "correctly perceiving time and space". The same skill can be encountered in the mathematical activities. Thus, the activity can be associated to the order the mathematics activity is provided. As there are no suitable attainments in the preschool and 1<sup>st</sup> grade mathematics program for the activity titled "Stone," "there is a need to redevelop an attainment. The activity should be readjusted in a manner establishing definitions or concepts regarding social studies.

## 3.2. Findings regarding the second problem

The activities were analyzed in order to seek an answer to the question of "How is the development domain, basic skills and attainments of mathematics activities in the orientation and preparatory process?" and Table 2 was composed.

Table 2. Analysis of Mathematics Activities in the Orientation and Preparatory Process

Name Of Activity	Development Domains	Skills	Attainment
Bilge's Money-Box	Cognitive Domain	Counting	1. Shows objects at an amount that is same as the said amount
Bilge Plants A Tree	Cognitive Domain	Ordering	<ol> <li>Puts objects in order according to their size.</li> </ol>
			<ol><li>Puts objects in order according to their color tones.</li></ol>
Toppling Bottles With Bilge	Cognitive Domain	Mathematical thinking	<ol> <li>Tells increasing or decreasing objects among objects.</li> </ol>
		Operation	Separates objects at a said number
Let's Have Fun With Bilge	Cognitive Domain	Number Sense	Tells the parts of an entirety.
Bilge's Socks	Cognitive Domain	Pairing	<ol> <li>Pairs objects according to their colors.</li> </ol>
	Psychomotor Domain		<ol><li>Pairs objects according to their colors shapes.</li></ol>
		Grouping	<ol> <li>Groups objects according to their shapes.</li> </ol>
Bilge And Her Sibling Are Competing	Cognitive Domain	Counting	<ol> <li>Correctly counts a certain number of indicated objects.</li> </ol>
	Psychomotor Domain		<ol><li>Counts objects and tells their amounts as less or more.</li></ol>
Bilge's Astonishment	Cognitive Domain	Pairing	<ol> <li>Pairs objects or object groups with the suitable number.</li> </ol>
		Counting	Indicates objects at a said number.
		Using Mathematics in daily life	1. Tells the meaning of the indicated symbol
		,	<ol><li>Indicates the symbol complying with the provided explanation.</li></ol>
			3. Reads the numbers within 10.
			4. Writes down the numbers within 10 by looking at the model
Bilge Adorns Cake	Cognitive Domain	Using Mathematics in daily life	Tells the meaning of the indicated symbol
•	5		Indicates the symbol complying with the provided explanation.
			3. Reads the numbers within 10.
			<ol> <li>Writes the numbers within 10 by looking at the model.</li> </ol>
		Operation	<ol> <li>Adds objects to the object group at an amount equaling the specified number.</li> </ol>
Bilge And Her Friend Are At A Picnic	Cognitive Domain	Correctly perceiving time and space	Tells the position of the object in space.
Bilge Plans Her Day	Cognitive Domain	Correctly perceiving time and space	Tells events according to the order of their occurrence.
Dingo I land Hel Day			Uses temporal concepts in accordance with their meanings
Bilge Repairs Her Toy	Cognitive Domain	Correctly perceiving time and space	Places the object in the correct spot according to directives.
Bilge Prepares A Present For Her Mother	Cognitive Domain	Mathematical thinking	Traces the object in the correct spot according to directives.      Tells the shape of objects.
blige Frepares A Fresent For Her Wother	Cognitive Domain	Algebraic thinking	
		Algebraic tilliking	<ol> <li>Composes patterns by looking at the model.</li> <li>Tells the element missing in a pattern.</li> </ol>
			Completes the missing element in a pattern.
			Tells the rule in a pattern consisting of a maximum of three elements.
Bilge Picks A Button	Cognitive Domain	Using Mathematics in daily life	Tells the meaning of the indicated symbol
Blige Picks A Button	Cognitive Domain	Osing Mathematics in daily life	Points out the symbol suitable to the provided explanation.
			3. Reads the numbers in 10.
		*** *** * * * * * * * * * * * * * * * *	Writes the numbers in 10 by looking at the model.
Let's Dance With Bilge	Cognitive Domain	Using Mathematics in daily life	Tells the meaning of the indicated symbol
			Points out the symbol complying with the provided explanation.
			3. Reads the numbers in 10.
P. 7		0.1.1	4. Writes the numbers in 10 by looking at the model
Bilge Is At Shopping	Cognitive Domain	Ordering	Tells the number specifying the order.
		*** *** * * * * * * * * * * * * * * * *	Puts objects in order according to their number.
		Using Mathematics in daily life	Tells the meaning of the indicated symbol
			Points out the symbol complying with the provided explanation.
			3. Reads the numbers in 10.
			4. Writes the numbers in 10 by looking at the model
Deductive Bilge	Cognitive Domain	Counting	<ol> <li>Correctly counts the objects indicated at a certain number.</li> </ol>
		Using Mathematics in daily life	Tells the meaning of the indicated symbol
			<ol><li>Points out the symbol complying with the provided explanation.</li></ol>
			<ol><li>Reads the numbers in 10.</li></ol>
			<ol><li>Writes the numbers in 10 by looking at the model.</li></ol>
		Operation	<ol> <li>Adds objects to the object group at specified numbers.</li> </ol>
			<ol><li>Adds up by using objects.</li></ol>
Part- Entirety With Bilge	Cognitive Domain	Number Sense	Tells the parts of an entirety.
		Guessing	<ol><li>Achieves an entirety by combining parts.</li></ol>
		Reasoning	<ol><li>Explains the relation between the part and entirety.</li></ol>
		reasoning	3. Explains the relation between the part and entirety.

Beating Out With Bilge	Cognitive Domain	Pairing	Pairs objects according to their numbers.
Beating Out with Brige	Psychomotor Domain	Counting	I. Indicates objects at specified numbers.
	r sycholitotoi Dollialii		
Dil transfer Dis	G 35 B 5	Algebraic thinking	Composes patterns with objects by looking at the model.
Bilge's Interesting Picture	Cognitive Domain	Geometric thinking	Composes various models by using circles, triangles, squares, and rectangles.
		Creative thinking	Indicates objects that look like prisms, cylinders, and cubes.
			3. Indicates that the surfaces of prisms, cylinders, and cubes are circles, squares and
			rectangles.
Bilge Goes Fishing	Cognitive Domain	Counting skills	Counts backwards in 10 rhythmically.
		Using Mathematics in daily life	Tells the meaning of the indicated symbol
			<ol><li>Points out the symbol complying with the provided explanation.</li></ol>
			Reads the numbers in 10.
			4. Writes the numbers in 10 by looking at the model
Let's Have Fun With Bilge	Cognitive Domain	Using Mathematics in daily life	Tells the meaning of the indicated symbol
			<ol><li>Points out the symbol complying with the provided explanation.</li></ol>
			<ol><li>Reads the numbers in 10.</li></ol>
			<ol><li>Writes the numbers in 10 by looking at the model.</li></ol>
		Operation	<ol> <li>Separates objects in an object group at specified amounts.</li> </ol>
Let's Have Fun With Bilge	Cognitive Domain	Counting	<ol> <li>Tells number of objects in a group with less than 10 objects.</li> </ol>
		Using Mathematics in daily life	Tells the meaning of an indicated object
			<ol><li>Points out the symbol complying with the provided explanation.</li></ol>
			3. Reads the numbers in 10.
			<ol><li>Writes the numbers in 10 by looking at the model.</li></ol>
		Operation	<ol> <li>Adds objects to the object group at specified amounts.</li> </ol>
Let's Play Sudoku With Bilge	Cognitive Domain	Using Mathematics in daily life	·
The O Game With Bilge	Cognitive Domain	Operation	<ol> <li>Adds objects to the object group at specified amounts.</li> </ol>
-	-	•	<ol><li>Separates objects from the object group at specified amounts.</li></ol>
			3. Solves problems that required subtraction in 10.
Bilge Rounds To 10	Cognitive Domain	Grouping	Groups objects according to quantity.
		Using Mathematics in daily life	1. Tells the meaning of indicated symbols
			<ol><li>Points out the symbol complying with the provided explanation.</li></ol>
			3. Reads the numbers in 10.
			4. Writes the numbers in 10 by looking at the model.
		Operation	Solves problems requiring addition in 10.
Let's Play A Game With Bilge	Cognitive Domain	Representing mathematical knowledge in	Composes graphics by using objects.
,	ē .	different manners	Points out objects with symbols.
			<ol><li>Places symbols in the prepared object graphic frame.</li></ol>
			Counts the objects in the graphic.
			5. Tells conclusion by examining graphic.
Let's Count With Bilge	Cognitive Domain	Mathematical thinking	<ol> <li>Notices the object/circumstance/event requiring attention.</li> </ol>
-	-	-	<ol><li>Focuses attention on object/circumstance/event.</li></ol>
			<ol><li>Tells the object/circumstance/event requiring attention.</li></ol>
			<ol> <li>Explains object/circumstance/event with details.</li> </ol>
Unit Square	Cognitive Domain	Geometric thinking	Composes various geometric shapes with square units.
Bilge Plays Tangram	Cognitive Domain	Geometric thinking	Composes various models using circles, triangles, squares, and rectangles.
, ,	ē .	Creative thinking	
Bilge Really Likes Sharing	Cognitive Domain	Problem solving	1. Tells the problem.
. , .	Ü		Suggests various solutions for the problem.
			Selects the most suitable ones among solutions.
			4. Tries the selected solutions.
			5. Decides on the most suitable solution.
			Explains the reasons for the decided solution.
Let's Have Fun With Bilge	Cognitive Domain		
Let's Have Fun With Bilge	Cognitive Domain	Counting	Shows objects amounting between 10 and 20 by separating them into tens and ones.
Bilge's Pets	Cognitive Domain	Operation	Solves problems requiring addition in 10.
U		- E - · · · · · ·	Solves problems requiring subtraction in 10.

For the purpose of developing the reasoning and problem solving skills of students under the scope of the mathematics course, activities such as ordering, comparing, remembering, Pairing, using numbers in daily life, basic measurement activities, grouping objects, completing patterns, and supporting visual perception constitute the overall activities of the orientation and preparatory process (MEB, 2012). In this context, activities oriented at the specified skills have been encountered and various skills such as creative thinking, number sense, algebraic thinking, and representing mathematical knowledge in various forms have appeared. It can be observed that mathematical activities have mostly been oriented at the cognitive domain. The 9<sup>th</sup>, 10<sup>th</sup>, and 11<sup>th</sup> mathematics activities in the orientation and preparatory process are oriented at the "skill of correctly perceiving time and space", which is also present in the social studies activities. In the 18<sup>th</sup> activity the mathematics and music courses are associated. In this context, the mathematics and social studies courses are being associated and presented in the orientation and preparatory process. The 23<sup>rd</sup> activity is considered to be difficult to comprehend by the students. This is because there are ambiguous expressions in the directives in the activity. It needs to be reorganized and simplified in a manner that can be understood by the student. Accordingly, for the purpose of clarifying the rules of the game it would be suitable to make an explanation by providing an example. The same can be encountered in the 4<sup>th</sup> activity.

It was observed that the 27<sup>th</sup> activity was prepared above the level of students. For this case, it is recommended that the level of the activity is made suitable for the levels of the students. As there were no attainments suitable for the preschool and 1<sup>st</sup> grade mathematics programs in the 19<sup>th</sup>, 28<sup>th</sup>, and 32<sup>nd</sup> activities, a need for the development of new attainments appeared. In line with the opinions of program specialists, suitable attainments were developed. It was observed that with 3 different activities the first knowledge on geometric shapes was aimed. As no skills with

the geometry domain were defined in the program, the skill desired to be attained with these activities was defined as the "skill of recognizing geometric shapes," which is the first of geometric thinking levels. A similar case was experienced in the "graphic composition activity", which is the 26<sup>th</sup> activity. For this activity, the skill of "Number Sense" (Olkun, 2001:25) was considered to be suitable. It was determined that the 31<sup>st</sup> activity was not associated to the mathematics course in the program. Thus, it is considered that it will be suitable to revise the activity.

### 3.3. Findings regarding the third problem

It was observed that when the orientation and preparatory program was being developed, the skills desired to be attained were taken as a basis rather than subject integrity. These skills are achieved through activities to be performed by students. When activities in the orientation and preparatory program were examined, it could be observed that these skills were expressed as self-care, daily living skills, and research skills (MEB, 2012:1). However, when the activities were examined, it can be observed that skills such as communication, emotion management, decision making, self-knowledge-personal development monitoring, participation-sharing-teamwork, and cooperation, recognizing the basic concepts of science, ethical behavior, and reasoning were attempted to be provided through activities. According to Table 3, it was asserted that the skill of communication was desired to be provided the most. This demonstrates parallelism with the social studies program prepared for the purpose of adaptation to real life. The skill of research that was desired to be attained through 19 activities in the 1<sup>st</sup> grade social studies curriculum was only addressed in 4 activities in the orientation and preparatory program. Social studies activities should be prepared to wake up with a sense of wonder. However, it is considered that 4 activities pertaining to research skills are inadequate in the attainment of this understanding.

Table 3. Percentile and Frequency Distribution of Basic Skills in the Social Studies and Mathematics Activities

Basic Skill	Social Studies Activities (N)	Percentile	Basic Skill	Mathematics Activities (N)	Percentile
Creative thinking	6	12	Using Mathematics in daily life	11	20
Self-care	6	12	Counting	8	15
Communication	9	18	Operation	8	15
Guessing	5	10	Mathematical thinking	3	6
Research	4	8	Pairing	3	6
Emotion management	5	10	Correctly perceiving time and space	3	6
Decision-making	3	6	Geometric thinking	3	6
Self-knowledge-personal development monitoring	2	4	Ordering	2	4
Participation, sharing, teamwork and cooperation	3	6	Grouping	2	4
Problem solving	1	2	Number Sense	2	4
Correctly perceiving time and space	1	2	Algebraic thinking	2	4
Recognition of the basic concepts of science	2	4	Creative thinking	2	4
Ethical behaviour	1	2	Guessing	1	2
Reasoning	2	4	Problem solving	1	2
			Representing mathematical knowledge in different manners	1	2
Total	50	100	Total	52	100

Mathematics is defined today as knowledge and skills constituted with problem solving and interpretation, based on the modeling of reality (Santos- Trigo, 1998). The incompatibility of mathematics at schools with real life, the inadequacy of students in using knowledge and skills acquired at school in real life and problem solving, and students immediately reaching the result without thinking on problems and producing solution strategies, has led to the increase in field studies concerning this topic. In this context, considering the principle of "each child can learn mathematics" in mathematics programs during the last decade, renewal activities are performed. It is observed that this situation reflects on mathematics learning experiences in each level of education. Within the framework of the orientation and preparatory program formed by arranging the preschool and the 1<sup>st</sup> grade mathematics programs, in addition to the common skills, it is aimed that mathematics learning is made meaningful through skills such as the use of mathematics in daily life, problem solving, representing mathematical knowledge in different manners, number sense, estimating, and creative thinking. Besides, the activities that are not included for the purpose of evoking number sense in students are striking. When the activities in the program were examined, it was observed that this situation was paid attention to but activities at a sufficient level were not included. It was determined that activities with an emphasis on operations such as counting, grouping, Pairing, and ordering were not included heavily. Whereas, nowadays mathematics learning must start with sense-making. However, it was revealed that this situation did not strike a balance despite by way of activities. The basis for the mathematical perceptions must be formed in the program in order to ensure that the students develop positive attitudes for mathematics and thus, the

relation of pre-conditionality must be paid attention in learning mathematics and research studies must be included for the students to use their mathematical knowledge. With the studies that shall be performed in this direction, students' achievements and motivations may be increased and in future years they may be provided the opportunities to construct their own knowledge easily.

#### 4. Conclusion and recommendations

When the activities in the orientation and preparatory program were examined, four common basic skills associated with mathematics and social studies courses were determined. These skills are the skills of "creative thinking," "guessing," "problem solving," and "correct perception of time and space." When examined in terms of common skills, it was observed that social study activities were more effective in students' multidimensional way of thinking. It is recommended that mathematical activities are diversified and their number is increased in terms of creative thinking, guessing, and problem solving. No study has been encountered in the literature yet regarding the evaluation of the orientation and preparatory program that underwent a short preparatory process such as three months and put into effect in 2012-2013 education years. From this aspect our study has the characteristics of being the first study in the field. In line with the findings obtained from the study, the orientation and preparatory program requires arrangement and improvement in terms of skill, attainment and development domains. Thus, it is considered that the skill, attainment and development domains that are specified in our study shall be exemplary to the development of the program.

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