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In the early childhood period children's decision-making processes

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Abstract

One of the aims of the early childhood education is to equip children with the necessities of the changing and developing world. To be able to adapt to the fast changing and developing world, decision-making is a crucial life skill; for it has been seen that children have been frequently confronting situations of making decisions in their daily lives like the adults. Active learning teaches children the decision-making process related to learning and enables this process to work actively. Since there is interaction in the basis of active learning, it enables children to take some decisions relevant to learning process and to use their own intellectual construction. The period of time that a child is engaged in the active learning work is important for the development of decision-making process.

The purpose of this research is to reveal decision-making processes of the experienced experience children who have been taking this education since they were four and those inexperienced unexperience children who have just started taking this education in the groups of active learning at the age of six, which is the early childhood period. In this research, half structured interview technique has been used, which is one part of the descriptive research techniques. To be used in the research, an interview protocol, which contains open ended questions, has been developed by the researcher and it has been used in all of the interviews. The children who belonged to the same socio-economic level in three private pre-school educational institutions and who were in the six-year-old group took part in the research. The groups were formed as experience teacher-experience child (n: 33), experience teacher-unexperience child (n: 22), unexperience teacher-unexperience child (n: 46). Since descriptive data have been collected, content analysis has been used in this research.

At the result of this research, the children who took part in the group of experience child- experience teacher are seen to produce much more alternatives. It has also been observed that the children in the group of unexperience child-unexperience teacher have used imperative expressions much more than the other groups while speaking to each other. But in the group of experience child-experience teacher, expressions emphasizing cooperation have been found much more than the others. For this reason, spreading the methods and techniques of active learning in the early childhood education is of great significance.
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1. Introduction

In the early childhood children are active learners. The active participation of children in the process of learning occurs by their interacting with their peers in the active learning groups, by using their intellectual skills, by working on various instructional activities and by rendering self-discipline (Davidson 1990). Active learning applications meet the children's relationship needs by means of social interactivity with each other and it conveys their energy into the learning activity in an active way (Yıldız, 1998; Hohmann and Weikart, 1995).

Active learning is an approach, which has interactivity in its basis. It meets the child's needs. It enables him/her to use his/her intellectual skills. It enables the child to take decisions about his/her learning. This approach has been proved to possess positive effects on cognitive and emotional products in which cooperative skills come to the fore. It evaluates the existing environment and materials and it can be applied in every activity of the early childhood education (Açıkgöz, 2003; Yıldız, 1998; Stern and Huber, 1997; Hohmann and Weikart, 1995; Knight, 1994; Meyers and Jones, 1993; Cartwirght, 1993).

Active learning enables this process to work actively by teaching children the decision-making process about learning. Decision-making is relevant to all aspects of learning process and all the learners who make decisions are teachers of themselves at the same time. Learners make their own study plans, choose their learning goals and activities, test their progress, pay attention to what they have learnt and what the have understood, and they share their mistakes and successes. The learners themselves carry out the preparation, the application, the control the of the work and the feedback of instruction in the active learning process. Besides, they decide how to carry out the learning activities (Stern and Huber, 1997).

Decision-making is a social process and moreover it is a significant living skill which is learned. Like the other skills, to be able to become efficient in this field, time and life experiences are necessary. At the same time this process evolves spontaneously during the children's communicating with others. At this stage mutual interactivity has an important role and the existing ambiguities are shed light on by talking over them (Grose, 2007; Lundberg and Romich, 2006; Barkley, Cross and Major 2005; Madge and Willmott 2004; Landsdown, 2001; Paxton and John, 1997; Dunne and Bennett, 1994).

In the decision-making process, when children come across a situation which holds a problem for them, to be able to solve the problem they make a research about what to do and then they can resolve about the best way for the problem. To be able to do this, they can come together with their friends, and independently or in groups they make researches on the works they can do in the group. They analyze the data they find, and by exposing what they have comprehended they can re-form their observation. Then they make a decision, analyze the process of the group and share the results and the supporting data with each other. To be able to evaluate the critical situations in this process, they consider it important to be active in the discussions of the group. They can perceive the comparative and contradictive situations and specify the probable results of the existing situations (Bogumill, 2007; Barkley, Cross ve Major 2005; Dunne and Bennett, 1994). Approaches such as consulting the authority (teacher), adapting to the decision of the majority, everyone's expressing their opinion and putting all the alternatives to a vote one by one, unanimity (uniting in one common view), putting criterions and trying to reach a reconciliation have an important role in the decision-making process (Barkley, Cross and Major, 2005).

Active learning groups create opportunities for children to learn decision-making process by living. It provides the group to engage in the decision-making process and also it provides learning by asking questions like 'Which subject should I study? 'Which role should I take?'. Young ages are especially perfect periods for children to understand democratic norms and values (like justice and equality) of more small units like family, class and society (Carter and Steinbrink, 1992; Skell, 1991).

In the active learning groups the teacher's role is to give the group a problem or a subject and ask the group to do researches on the subject matter. By doing this the teacher enables the processes of the group to work, and in this way the teacher makes it possible for the children to acquire democratic participation skills (Özkal, 2000; Johnson, and Johnson, 1996; Johnson, Johnson and Holubec, 1994; Açıkgöz 1992). In this process, the teacher's being expert and experience in the active learning methods and techniques makes the process more effective. If the teacher is new and unexperience in this field, he/she has difficulties in problems such as the children's not being ready, the teacher's uneasiness / anxiety, the planning of the lesson, lengthening the time or not having enough time (Açıkgöz, Sucuoğlu and Gökdağ, 1999). The same case is valid for the unexperience children who have just started applying these methods and techniques.

Therefore, the purpose of this research is to bring to light the decision-making processes of the experience children in the early childhood who have been in the active learning groups since they were four and who have experience in the active learning method- technique and strategies, and of the new beginner and unexperience children who have just started this education process in the six-year-old group. It has been considered that the result of this research will play an important role in improving the strategies of the decision making processes in the early childhood. In addition; to enable active learning groups work more effectively, we hope that this research will provide forming solution proposals when children confront problems in these processes. It will also provide significant clues about how teachers guide students in the applications of effective learning and teaching processes and will provide clues about arranging instructional work. These results will provide contributions for training teachers and especially for specifying the points to be paid attention when planning and applying the early child hood programs.

2. Method

In this research, half structured interview technique, which is one part of the descriptive research techniques, has been used. To be used in the research, an interview protocol which contained open ended questions was developed by the researcher and it was used systematically in all of the interviews. The protocol of the interview and the pilot work of the researcher were carried out by interviewing twenty children separately in the six-year- old group. After the pilot work, the necessary changes were made and real work was started.

For the validity of the content of the interview protocol, the views of experts and the views of teachers working on this field were taken. Since the oral data were collected by means of interview protocol, instead of reliability of the protocol, it was dwelled on the researcher's gathering true and valid information and on the children's giving information honestly and clearly. In addition to this, to be able to calculate the reliability of the analyzing person in the analysis of the oral data, we observed the researchers' data coding reliability. For this, during the process of coding the arranged data in the categories, compatibility percentage was calculated for the reliability of the researches (Türnüklü and Şahin, 2003). The calculated coefficient is found as 0.91. According to this result it can be said that the researchers' coding reliability is high.

Since descriptive data has been obtained in this research, content analysis has been done (Bilgin, 1999). The general meanings and themes in the context have been extracted, and their visible frequency in the text has been examined; besides the data collected from some of the questions have been separated into various categories in special ways and it has been classified and interpreted.

Children, who belonged to the same socio-economic level in three private pre-school educational institutions, and who were in the six-year-old group, participated in the research. The groups were formed as experience teacher-experience child (n: 33), experience teacher-unexperience   child (n: 22), unexperience teacher-unexperience child (n: 46). This grouping was made according to the teachers' starting point to the participation of active learning education program which was given by the researcher. The grouping of the children was made in the same way according to at what age the child participated in the active learning education program. For this reason, the experienced teachers who have been taking and using the education of methods and techniques of active learning education from the researcher for seven years and who have been applying what they have learned since they attended this education are called experience teachers. The teachers who have been taking this education for ten months and who has just started applying what they have learned are called unexperience teachers.

The experienced children who have been educated since they were four by experience teachers are called experience children, and those who have been in this education (by experience or unexperience teacher) since the beginning of six year-old group are called unexperience children. As for this, 101 children, who have been attending these institutions since they were six, have participated in this research. The training of active learning was given by the researcher who is an expert in the subject matter. The questions were asked to the students by the researchers individually face to face in an empty class.

In order to reveal what the children do to make decisions during group works and what they talk among themselves during this process, talkings of the students in the group work were recorded with recording devices. For the grading and analyzing the talkings, the recordings were decomposed, written and scrutinized sentence by sentence. At the end of these observations, first; the talkings of the students were separated into various categories and the list of these categories was made. After that, to enable validity, the written records were coded by two

coding people. The different views appearing during the coding were discussed and resolved. The audio recordings in every group were done when the children were studying with the yes-no-sometimes, cornering, learning together techniques which come from active learning methods. Every group was given the same instructional works.

The findings of the research have been observed and supported with specimen sentences according to the children's answers to the questions such as 'What do you do when you need to make a common decision in your study?', and 'How do you do the duty sharing in the group works?'.

3. Findings and Discussion

The answers of the children about what to do in the situations when making a common decision is needed are given in Table 1.

Table 1. The distribution (f, %) of what the children do in the situations when making a common decision is needed.

Category	Unexperience child-Unexperience teacher		Experience child - experience teacher		Unexperience child - Experience teacher	
	f	%	F	%	f	%
Talking together	17	31.4	12	25	10	40
Getting help from the teacher	6	11.1	1	2	2	8
Counting			2	4	3	12
Voting	2	3.7	8	16	2	8
One by one			2	4		
Making a decision together after thinking	3	5.5	4	8	1	4
Everyone's telling his/her opinion	11	20.3	13	27	3	12
Trying to convince			3	6		
Fighting	3	5.5				
Accepting the good idea	2	3.7	1	2		
Nothing	1	1.9	1	2		
Not to be able to explain	9	16.6	1	2	4	16
Total	54	100	48	100	25	100

When observing Table 1, it is seen that much more alternatives have been produced in the process of decision-making, (counting, doing one by one, trying to convince etc.). However, negative behavior like fighting has been determined to exist only in the group of unexperience child-unexperience teacher. The behaviors of not being able to explain the process of decision-making and of getting help in this process have been mentioned frequently by the group of unexperience child-unexperience teacher. The children in the group of experience child-experience teacher have mentioned alternatives such as talking together more in the decision-making process, deciding together after thinking and everyone's telling his/her own opinion. After these, their doing actions which are the continuation of this process such as voting-counting and doing one by one has emerged in the children's expressions. The actions which the children express resemble Barkley, Cross and Major (2005), Huber (2002), Hohmann and Weikart, (1995) and McLean (1992)'s decision-making processes in small active learning groups. As Barkley, Cross and Major (2005) stated in the decision-making process approaches such as consulting the authority (teacher),adapting the decision of the majority, everyone's telling his/her decision and voting all the alternatives separately, unanimity (agreeing on a common view by speaking) trying to reconcile by convincing are included obviously in this group. According to Huber (2002) in the small groups of active learning, to be able to attain a decision, all of the students need to share their thoughts and in addition to this they need to pay attention to diverse thoughts. According to McLean (1992), children think by means of social interactivity, use their intellectual skills by trying to find solutions with their friends to existing situations, and make decisions about what to do in the present conditions. Group works

give a chance to every individual to state their views about   the given work or problem (Cannon and Newble, 2000; Capel, Leask and Turner, 1999; Hohmann and Weikart, 1995).

The reason why this process occurs so frequently in the experience child-experience teacher group is that the active learning method, the work and strategies in this group can be applied for a long time and continuously. These children and teachers have passed the unskillful ness period. As seen in Table 1; in the processes of decision-making, similarities are seen between the group of unexperience child-unexperience teacher and the group of unexperience child-experience teacher. In the group of experience child-experience teacher, decision-making process works more effectively than the other two groups. This situation makes the active learning activities necessary for ever. At the same time this situation shows the resemblance with the findings of the research which suggests that it is necessary for the teachers to have a training program and to be supported and observed in regular periods (Açıkgöz, 2003; Açıkgöz, Sucuoğlu and Gökdağ, 1999).

Specimen sentences of the children's answers about what to be done in the situations when making a common decision is needed are given in Table 2.

Table 2. The things done in the situations when making a common decision is needed (specimen sentences)

Category	Unexperience child-unexperience teacher.	Experience child-experience teacher	Unexperience child-experience teacher
Talking together	'We are talking among ourselves, we are making a decision', 'We are put our hands on our shoulders and we are speaking in whispers here everybody tells his/her opinion'	'We sit close to each other and get on well', 'First we discuss then we do things', 'We get each others opinion', 'With our arms we make a circle on the table, in that way we make a decision', 'first we discuss then we do things'	'Then we solve speaking together ', 'We give ideas to each other'
Getting help from the teacher	'We do what the teacher tells us', ' we ask the teacher'	'We ask the teacher' , 'the teacher decides'	'We think then we tell our teacher'
Counting		'.. we do counting ','… we do piti piti '	'Sometimes we have three colors. Whose color comes we agree'
Voting	'We do voting …… we vote for the person they tell us'	'We are discussing if someone doesn't want we do voting. We do the more one'	'We do voting ….. we choose which they say more'
One by one		'We are waiting our turn. We are listening to our friends'	
Decision-making after thinking	'We think and decide quietly. We speak quietly so that nobody can hear us later they get our ideas'	'We think quickly. We tell each other. Then when decide we say I found it' '…. everybody thinks first and decides then we unite them'	'We think and think. When we find we speak and do'
Everyone's telling his/her opinion	'We gather, speaking we get all of ideas', 'Everybody tells their ideas'	'Everybody is telling their ideas, some are more then we do it',	'Everybody tells her idea. Sometimes we don't agree then decide'
Trying to convince		'We say let mine be today another day yours be', 'If someone decides differently we try convince him', '… we to make each other accept. We say the true and false ones and make each other accept'	
Fighting	'By fighting the girls want the angels, the want the power …','then my friend says no this will be and we fight		
Accepting good ideas	'… In turn friends say something. We do the idea which is beautiful.'	'…which idea is better we do it', 'we choose the decision we like'	

When Table 2 examined, we had a look at the experiences of the children about how certain the process of agreeing

Table 3. What the children did while making a common decision (Audio recordings)

Unexperience child-unexperience teacher	Experience child-experience teacher	Unexperience child-experience teacher
E: We can make the rabbit shoes	S: Shall we draw something like this?	E, İ, D: Teacher we decided for the
We can make naked shoes	Teacher: OK. But you should decide together.	group name.
K: I don't know doing it	……. Friends said colorful shoes. It must be	D: We decided for our name. İrem,
E: We decided to make a rabbit shoe	colorful shoes. Is it Ok Kaan? like this	Elifnaz and me.
	K: I think his teeth should be bigger.	I: Cindy's and Barbie's
	Teacher: This is better. Do you have another	Teacher: Barbie's has been taken...
	thing to add?	E: Then The Hearts.
Shoes of long ear clown	D: Ours became colorful teacher.	Teacher: OK. Did you make a decision
Paint this	……..	with your friends?
Don't make eyes	D: But let his teeth be very big OK?	I: No, Elif decided without asking us.
Paint the inside, do his things, mustache do	S: OK.	Teacher: OK: Then I will ask later.
his mustache	D: Let's paint it purple.	Meanwhile decide among yourself.
….. Make another circle inside it. Now	S: Is it OK?	E: Shall it be the Hearts?
make his nose, and his mustache. Make a	D: Yes, it is wonderful.	D: All right
funny nose. Student: Clown ear.	S: One moment let's do something	E, İ, D: Yes. Let it be the Hearts
The same student: Now don't make his	.. Shall we draw something like this?	E: Shall we make it pink?
mustache with red. Make it with white. I		D: All right
said with white.	S: Kaan. What color shall we use? One	I: OK
KO: from here?	moment I must check it.	E: Pink hearts
AO: Yes from there	K: Let it be this color.	
KO: Where else shall I make from his	E: Let's make it with brown.	
mouth?	D: Then let's make this one. Mine is finished.	
Student: We are sharing ideas.…	E: Shall we make glasses?	
AO: You make his mouth. Make it big...	D: Yes	
Then make his mouth.	K: Yea	
BO. Make a sun. First make his mouth.	E: Let's make blue and brown	
Paint the inside of the sun.	D: Wait. Let's make its circles.	
….. make his eyes.	K: Let it have two eyes. Wait must two eyes.	
AO: We made his eyes	We forgot making its mouth.	
Make it light	D: Let its hair be upright.	
make it grey	K: Brown became beautiful.	
Do we have grey?	D: We didn't' use this color.	
Make it red. O.K. made red.	E: Its eyes…..	
Red is OK.	D: Yes I think its nose is OK.	
…....	E: Shall we find the group name now?	
AÖ: Make its mouth, make its nose, make	D: Yes	
it funny.	H: There is Seven Ages. Let's find something	
Make the sun's lights	else.	
Make the buttons	E: Nine ages	
BÖ: Make its buttons with white	D: Ten ages	
AO: Like this from the sides. Look… like	H: No. There is Nine ages.	
this, then paint this with white.	E: Shall it be The Families group?	
White. Give it to me	H: Yes. The Families group.	
Shoes with pulls	Dyes	
OK. No, like this		
And from like this		
……		
All right paint here with white		
OK. That's it		
We can paint it black, too.		
With black it may ugly.		

In Table 3 when the audio recordings of the unexperience child-unexperience teacher are observed it is seen that the children use much more imperative expressions (…. make another circle inside it. Now make its nose, and make its mustache, make its nose. Make a funny nose.) in their conversations. On the other hand, in the group of experience child- experience teacher, expressions emphasizing cooperation (Shall we draw something like this? Friends shall we find a group name?) are observed much more. When the audio recordings of the group of

unexperience child-experience teacher are observed it can be said that the teacher struggles to teach the decision-making skills (Teacher: OK. Did you make a decision with your friends? I: No, Elif decided without asking us. Teacher: OK: Then I will ask later. Meanwhile decide among yourself.)

The distribution of the given answers about how to make the duty sharing in the work groups is given in table 4.

Table 4. The distribution of how the children make the duty sharing in the work groups (f, %)

Categories	Unexperience child-unexperience teacher		Experience child-experience teacher		Unexperience child-experience teacher	
	F	%	f	%	f	%
Teacher	25	52.1	9	19.1	2	8
Teacher's choosing with play randomly	11	23	1	2.1	4	16
Not being able to explain	8	16.6	3	6.3	6	24
Getting permission			9	19.1		
Counting-vote			12	25.5	4	16
Doing one by one			1	2.1	1	4
By talking	4	8.3	8	17	8	32
With unanimity			2	4.2		
Total	48	100	47	100	25	100

....
Teacher we are three people. How will we do?
Teacher: One person painter, one person drawer, and do you know what one person will be?
Cutter
Teacher: No. Your friend will be checker
What does checker mean?
Teacher: Do you know what checker does?
What does he do?
Teacher: Looks whether it is beautiful. Controls his friends whether they doing right as they decided.
……
Teacher: You are three people. The person who finds the shortest thread will be the cutter, the one who finds the longest will be the checker the one who finds the middle will be the painter ...
 You found the longest. You are the chec1"ker.
I got the shortest.
I got the middle one.
In the experience child-experience teacher group as seen in the following audio recordings, mission distribution was done much more with techniques such as counting, drawing of lots, talking to each other which do not belong to

cooperative methods. In this group, what the children say and the teacher's choosing categories randomly by games, define the mission distribution in the cooperative learning methods.

D: Let me paint too. All right?
E: I am the gluing person
K: I will do your drawings,
D: I will paint this side my friend will paint that side.
S: But I want to do one part
…We don't have red
… We will use it but let's use the one on the table
… His teeth will be very long.
...Deniz Shall we do it?
D: His teeth are very long.
S: Let's make it very long OK?
D: Then let's paint it with this color.
……
E: Who is the spokesman?
D: Shall I be the spokesman?
H: Yes

From this, we can come to a conclusion that the children in this group know how to do mission distribution in their study and that they direct each other by talking. Active learning works give every child the feeling of responsibility, which makes the group better and successful. This situation teaches children to take responsibility for others, to understand each others feelings, to decide together with their peers, to help in overcoming the problems coming out of the relationship of their friends and it teaches the ability to solve contradictions and supports their social and moral development (Miller, 1989; Johnson, Johnson and Holubec, 1990; Johnson, and Johnson, 1996**;** Katloff, 1993; Slavin and Stevens, 1995; Yıldız, 1998; Açıkgöz, 2003).

4. Conclusions

When we observe the findings of this research, which is done in order to reveal the experience and unexperience children's decision-making processes in the active learning groups in the early childhood, we come to conclusions as follows.

In the experience child-experience teacher group, which is experienced in the active learning method, much more alternatives (counting, doing one by one, trying to convince etc.) related to decision-making process are produced. During the decision-making process, the children in this group mentioned alternatives such as talking together more, deciding after thinking, everyone's saying his / her opinion. Besides when looked at the expressions of the children, it is seen that they have explained the decision-making process in a right way. At the same time when all of the transcripts are observed it has come out that they have expressed themselves more comfortably and answered the questions easily and in detail. In addition to this, the children in this group know how they should do the mission distribution and they direct each other by talking.

In the group of unexperience child-unexperience teacher there were negative behaviors such as fighting. Also it was often said by the children that they weren't able to explain the decision-making process and the habit of getting help from the teacher during the process.

Similarities between the unexperience child-unexperience teacher group and the unexperience child-experience teacher group were seen in the decision-making process.

In the experience child-experience teacher group decision-making process works more effectively compared to the other two groups.

The children in the unexperience child-unexperience teacher group used   much more imperative expressions in their talkings. On the other hand, in the experience child-experience teacher group there were much more expressions emphasizing cooperation.

When the audio recordings of the unexperience child-experience teacher group are observed, it is seen that the teacher was in an effort of teaching the decision-making skills

5. Suggestions

Taking into consideration the results of the research above, program designers, institutions educating pre-school teachers, pre-school teachers and researchers working on this field can be suggested the followings.

- Active learning methods and techniques should become widespread in the institutions of pre-school education. To be able to do this; **(a)** In the university institutions educating pre-school teachers, trainee teachers should be taught the methods and techniques of active learning applicatively. **(b)**For the teachers working in the field, applied pre-school education studies should be planned by lecturers who are expert in this field. **(c)** During the education period of active learning, teachers should be instructed and guided about how to teach children group work skills, and how the group work processes and decision-making skills work in the active learning process. **(d)** Pamphlets including active learning methods and techniques and instructional works should be prepared for the teachers trained in this field.

- Teachers who have just started applying the active learning methods and techniques in the institutions of pre-school education should be given counseling services. If this can not be done, then teachers should be educated for the probable problems they may confront in their noviceship.

- In order to make deeper researches in this subject, observation studies related to learning and teaching processes in class should be made. It should be focused much more on descriptive studies in the researches to be done about early childhood education.

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