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Effects of Argumentation Based Concept Cartoon Activities on Students' Scientific Process Skills*

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Abstract: This study was aimed at examining the effects of argumentation based concept cartoon activities on students' scientific process skills. These activities were adapted by "Electricity In Our Life" unit in science and technology course. This study was conducted in a semi-experimental design by using pre-test and post-test design with control group. The participants were seventh grade students from a public school in 2012-13, Izmir, Turkey. The experimental group (n=28) and the control group (n=26) were chosen randomly. Data were gathered by "Science Process Skills Scale" consisting of 28 items. This scale covers skills such as "observation", "classification", "measurement", "prediction", "inference", "forming hypotheses", "identifying variables", "controlling variables and replacement", "designing experiments", "saving data", "data processing and modeling", "reporting results and interpretation". The results showed that students in the experimental group were much better in the development of science process skills towards "Electricity In Our Life" unit than the control group.
Key Words: argumentation, scientific process skills, science education

INTRODUCTION

Today, rapid changes in the economic, social, scientific and technological fields affect on human life positively or negatively. Resulting from the rapid changes of the fields of knowledge and technology created need of an awareness of individuals against adverse situations. In this context, certain behavior, which meets the need of the individual self, investigating the world what is going on around and acquire solutions, should be able to gained. Thus in our country, science and technology course and science course aims raising individuals science-literate regardless of their individuals differences. Science-literate individuals should be self-confident, open to collaboration and lifelong learners having the awareness of sustainable development and inquire in general, make effective decisions, solve problems, is self-confident, is open to collaboration, make effective communication. In this context, science-literate individuals can be just raised in the environments which is inquiry-based, problem-based and argumentation-based science learning.

Students inquiry the earlier models of the minds with argumentation based learning approach, they examine models of colleagues and use scientists' thought system related to backing, warrant and claim to defense their own models (Kabataş Memiş, 2011). Thus, the result of defense of models and refutation of the models, which are not considered, income conceptual change and misconceptions are reduced (Aslan, 2010). Bricker and Bell (2009), describe the scientific debate (argumentation) as a center of epistemic applications of science and these claims. The sole purpose of science is not only to teach scientific concepts, but also how they were perceived to teach scientific discourses.

Kaya (2005) defines scientific debate as a whole speech which is made in to explain between the contrast two opposing situation or an activity which is used for reaching logical

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decisions. Aldağ (2006) defines scientific discussion as a process of groups or individuals who have similar or different perspectives in order to solve a problem or make a decision about evaluating alternative points of view, and cognitive products which are the result of this process.

Discussion of issues of science; can be defined as establishing the relationship between the data and the claim and taking advantage of the experimental and / or theoretical evaluation of the evidence (Jimenez-Aleixandre and Erduran, 2008; cited by Yalçın Çelik, 2010).

Today, Toulmin is one of the effective author in argumentation (1958), divides argumentation into six-item. These are: claim, grounds/data, warrant (basic components), backing, qualifier and rebuttal (auxiliary components). Toulmin's discussion of items examples can be explained as follows (Lazarou, 2009; cited by Yalçın Çelik, 2010):

Discussion Topic: Do you breathe through the nose or a mouth is better?

Claim: It is better to breathe through the nose.

Data: There are hairs in the nose. There is secretion of mucus in the nose.

Warrant: Air and dust particles in the air are cleaned by adhesion of the hair and mucus.

Backings: When we clean inside the nose we can see dust particles in the air in secretion of mucus from our noses. This means that nose cleans the air.

Rebuttal: Cigarette smoke and smoke particles don't stick to nose hairs and mucus secretion. So there is no point in discussing breathing breathe through the nose or mouth is better in a non-smoking environment.

The process of research and inquiry learning environments students need to be active when they configure the information, so use of visual aids is important to provide more meaningful learning along with discussion environments. One of these tools is the concept cartoons (Balım, İnel and Evrekli, 2008). Concept cartoons are drawings in the form of interesting and amazing cartoon that each character advocates different perspectives on an event in everyday life (Keogh and Naylor, 1999; Martinez, 2004). In the concept cartoons a group of students (3, 4 or 5) is depicted with the daily situation of different scientific explanations. These explanations include the common misconceptions and scientifically accurate statement. Thus, scientific conflict is created in the students' minds. The students' prior knowledge on the subject can be determined (Naylor and Keogh, 2000). Students' misconceptions can also be detected. When concept cartoons are used, that helps provide a learning environment which is right and wrong all the ideas on equal terms and misconceptions are part of the learning process (Demir, 2008). So, students are not afraid of making mistakes, environments are created that they could say their ideas clearly. In Argumentation based learning environment, concept cartoons support discussion environments so both can be used in the learning process.

When students defense their concepts or models, together with reasons and scientific claims they can use scientists' structure of thought. Because in argumentation based learning environments with supported visual materials such as concept cartoon there are claim, data to demonstrate the claim, reasons to justify the claim and event or facts to undermine the claim. In these argument environments scientific thinking processes are used for establishing of associations. Therefore, on argumentation based supported with concept cartoon learning environments can develop students' scientific thinking skills.

Different definitions about science process skills or scientific thinking are maintained, but some of the concepts used in these definitions differ very little from those states. In general, scientific thinking or science process skills can be defined as creation of variety hypotheses in the face of a problem, based on these collection of information and interpretation of data collected in an unbiased manner, and production of meaningful results. Scientists use that thinking skills to analyze the nature and events that occur in nature (Dökme, 2005; Ercan Özaydın, 2010; Lind, 1998; Tatar, 2006; Temiz; 2001). In this sense it can be said that the thought process is systematic. Aydoğdu (2009); Saat (2004); Yeany, Yap and Padilla (1984) divide science process skills into basic and integrated skills. Basic skills, be gained from pre-school period, integrated skills, from the primary second stage. For deepening science process skills outcomes to upper echelons, it provides long-term remembering in the field of cognitive

learning and said to be persistent and useful in everyday life (Balım, Deniş Çeliker, Türkoğuz and Kaçar, 2013). These skills should not be considered independently of one another, be viewed as a whole (Ergin, Şahin Pekmez and Öngel Erdal, 2005).Science process skills provide permanent learning, encourage research, problem solving and improve student' learning responsibility (Çepni, Ayas, Jonhson and Turgut, 1997). Students need to be taught these skills, which scientists also have, to be a good literate in science, and to support science course vision.

In the light of the text on this study, the effects of the argumentation method with the concept cartoons on primary school students' science process skills in the use of teaching Science and Technology is aimed to investigate that creating discussion environments which allows students construct their information, allowing them to be active in their learning process.

METHODOLOGY OF RESEARCH

This study was conducted in a semi-experimental design by using pre-test and post-test design with control group during the academic year of 2012-2013 in İzmir- Turkey (Karasar, 2004). Among the seventh grade classes having equal performance grading based on previous year Science and Technology Course and pre-test results, two classes were chosen randomly. After choosing the two classes, they were randomly assigned to the experimental (n=28) and the control group (n=26). Students in the experimental and control group was applied pre-test prior to application (Science Process Skills Test on unit "Electricity In Our Life") and the same scale as the post-test after application. "Electricity In Our Life" unit's plans and activities having of concept cartoons were used in argumentation based learning for students in the experimental group. Students in the control group received instruction in the framework of Science and Technology Curriculum prepared by The Ministry of Education, in 2005.

Participants

Participants are composed of students from a secondary school in seventh grade in Bornova district of Izmir. One of the two classes same academic status of marks is formed the experimental group (n: 28) and the other one formed control group (n: 26). There are 16 girls, 12 boys in the experimental group and 12 girls, 14 boys in the control group.

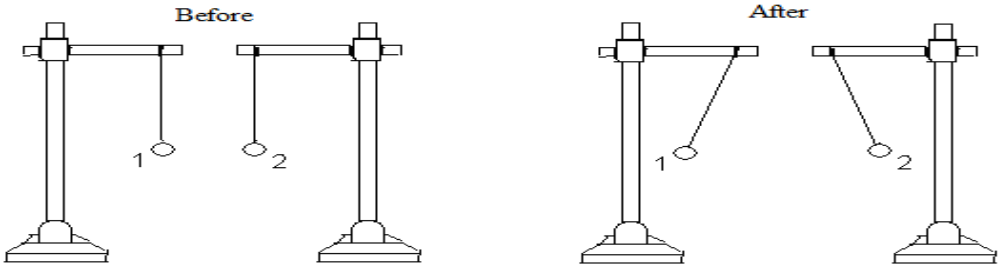
Data Collection Tools

The science process skills scale used in the study is prepared and used by Aydoğdu (2009). Aydoğdu (2009) in his study developed the scale of scientific process skills taking into account gains of "Electricity in Our Lives" units. Science process skills scale arranged as multiple-choice and four-option. The reliability (KR-20) and average difficulty for 28-item scale was in turn .81 and .50. Developing this scale covered scientific skills such as "observation", "classification", "measurement", "prediction", "inference", "forming hypotheses", "identifying variables", "controlling variables and replacement", "designing experiments", "save the data", "data processing and modeling", "reporting results and interpretation". So that developed scale covered both the basic skills as well as integrated skills.

Sample Questions On The Scale Of The Scientific Process Skills

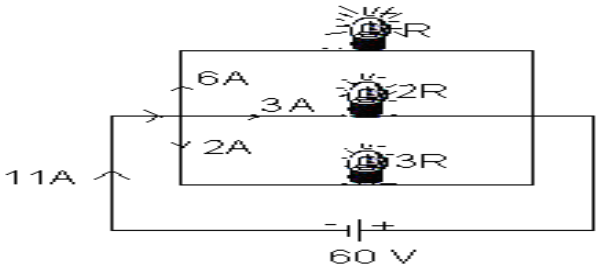
Sample Question 1:

Two small balls, hanged with rope from a device as shown below. Then, two balls exposed to electricity, when they released , changes have occurred as shown in the figure. According to these results, what can we infer?



A) One of the ball is charged positive, the other negative.
B) Ball 1 and ball 2 are charged positive.
C) Both ball charged on the same.
D) None of the above answers is correct.

Sample Question 2:
The following illustration shows how a current shared through the main arm with the circuit officials. What do you conclude from this data?



A) The current in the main arm, is shared depending on resistors to other arms.
B) The current in the main arm, is shared equally regardless of resistors to other arms.
C) The circuit voltage increases, the brightness of light bulbs decreases.
D) If more voltage is given to circuit bulbs explode (broken).

Data Collection Process
The report card grades of the students in the experimental and control group where the study was going to be carried out prior to the applications were analyzed, and two groups from the seventh grade with equal averages were randomly determined as the experimental and the control groups. In order to check the prior knowledge of the students regarding the topic of the unit, the students' skill levels aimed at their prior knowledge were ascertained prior to the applications by handing out the "Science Process Skills Scale" intended for the "Electricity in Our Lives" unit. Afterwards, plans and activities by means of which argumentation based concept cartoons were utilized for the 7th grade "Electricity in Our Lives" unit in Science and Technology Course, were applied to the experimental group, (Sample Activities, Appendix 1 and Appendix 2); while, on the other hand, only content and acquisitions were applied to the control group, with respect to the "Electricity in Our Lives" unit in Science and Technology Course. In elementary schools, Science and Technology Course is performed 4 hours a week, and the class activities are designed according to the 5E instructional model of the Constructivist Theory. In this study, the lesson plan and activities of both the experimental and the control group were designed according to 5E model of the Constructivist Theory. In the experimental group, on the other hand, the activities consisting of argumentation based concept cartoons were used at the exploration and elaboration stages of the 5E model of the constructivist theory. In the experimental, nine activity consisting of argumentation based concept cartoon was applied. The applications including the pre-test and post-test processes lasted for 6 weeks. Following the applications, the students' developments in the scientific

process skills were determined through the "Science Process Skills Scale" intended for the ‘Electricity in Our Lives" unit.

Data Analysis

The data was analyzed by the SPSS statistical program. The scores of pre-test and post-test towards "Science Process Skills Scale" intended for the ‘Electricity in Our Lives" unit were evaluated by using 2 x 2 (Group x Time) repeated measures ANOVA to compare the developments of the experimental and control groups. The pre-test and post-test changes of "Science Process Skills Scale" intended for the "Electricity in Our Lives" unit regarding the basic science process skills and advanced science process skills of the experimental and control groups was compared by t-test analyses. In the same way, the pre-test and post-test changes of "Science Process Skills Scale" intended for the "Electricity in Our Lives" unit in regard to the basic science process skills of the experimental and control groups, such as Observation, Classification, Communication, Measurement, Inference and Prediction was analyzed separately for each sub-skill by means of the t-test analysis. Again, a comparison similar to this one was made for the skills, such as Determining variables, Devising experiments, Hypothesizing, Making Inferences and Recording data, which are included in the advanced skills of the "Science Process Skills Scale" intended for the "Electricity in Our Lives" unit. The significance level for all the comparisons made was determined as .05. Kolmogorov-Smirnov and Shapiro-Wilk normality tests were applied to the data prior to 2 x 2 (Group x Time) repeated measures ANOVA and t-test analyses. In the wake of ensuring normality tests, the comparisons of the data were analyzed by the t-test analyses and the 2 x 2 (Group x Time) repeated measures ANOVA. These techniques used for performing the data analysis are within the scope of the descriptive statistics (McMillan, 2000).

RESULTS OF RESEARCH

The findings obtained of the data from this study and the descriptive statistical values are given in Table 1.

Table 1. *"Electricity in Our Lives" Unit’ Science Process Skills Scale Mean and Standard Deviation Values*

		Pre-test		Post-test	
Group	N	Mean	Std.Deviation	Mean	Std.Deviation
Control	26	8.73	3.758	15.23	5.054
Experiment	28	9.86	3.407	19.75	3.417

As the table shows, argumentation based concept cartoon activities used in the experiment group students’ scores on the scale of the science process skills before the experiment was 9.86, after the experiment was 19.75. Received instruction in the framework of Science and Technology Curriculum prepared by The Ministry of Education, in 2005 students in the control group’ scores respectively were 8.73 and 15.23. According to the experimental group and the control group, in “Electricity In Our Life” unit different activities application can be said that provide an increase in the scientific process skills.

Treated two separate experiments students showing a significant difference between the results repeated analysis of variance are given in Table 2.

Table 2. *Science Process Skills Scale Pre-test and Post-test Repeated Measures Analysis of Variance Results on "Electricity in Our Lives" Unit*

Sources of variance	Sum of Squares	sd	Mean Square	F	p	Impact value
Between-Subjects Factors	1548.667	53				
Group (Control/ Experiment)	214.847	1	214.847	8.376	.006	.139
Error	1333.820	52	25.650			
In Subjects	2175.596	54				
Measurement (Pretest-posttest)	1811.411	1	1811.411	328.670	.000	.863
Group- Measurement	**77.596**	**1**	**77.596**	**14.079**	**.000**	**.213**
Error	286.589	52	5.511			
Total	3724.263	197				

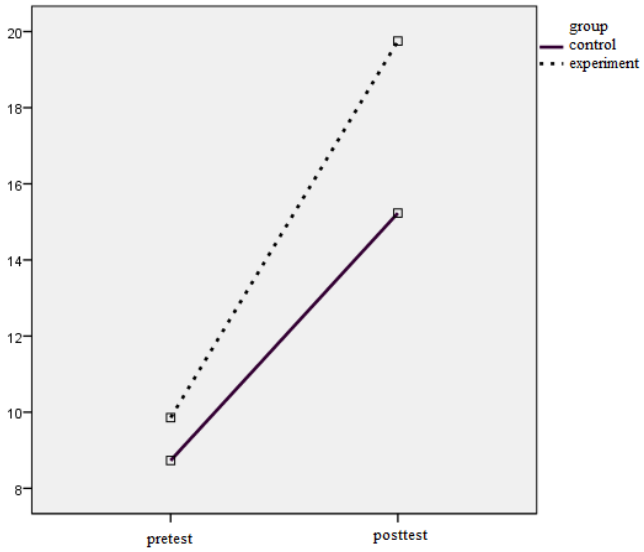


Figure 1. *Science Process Skills Scale Pre-test and Post-test Changes Chart in the "Electricity in Our Lives" Unit*

The Science Process Skills Scale composed of 28 articles evaluates both the basic science process skills and the advanced science process skills. Analyses were performed as to which skills the argumentation based concept cartoon activities developed more, and the findings in Table 3 were acquired.

Table 3. *The Difference Change Results in the Basic Science Process Skills and Advanced Science Process Skills of the "Science Process Skills Scale" Intended for the "Electricity in Our Lives" Unit.*

Progress	Group	Mean	Std. Deviation	t test	p
Science Process Skills	Control	6.50	3.82	3.75	.000
	Experiment	9.89	2.78		
Basic Science Process Skills	Control	2.50	2.21	1.95	.056
	Experiment	3.57	1.81		
Advanced Science Process Skills	Control	4.00	2.47	3.50	.001
	Experiment	6.32	2.40		

When the difference changes between the pre-test and post-tests in the experimental and control groups in Table 3 are compared, it follows that there has been a progress in the basic science process skills and advanced science process skills of the experimental and the control groups, however, the experimental group seems to have progressed more than the control group. When the basic science process skills of the experimental and the control groups from Table 3 are compared, it cannot be stated that there is a difference on a significance level of .05. Nevertheless, when compared in terms of the advanced science process skills, it can be said to have made progress in the advanced science process skills for the students in the experimental group. According to these results, it can be stated that the utilization of the concept cartoon within argumentation based on learning science influences the advanced science process skills of the students more than the basic science process skills.

Table 4. *The Difference Change Results in the Basic Science Process Skills of the "Science Process Skills Scale" Intended for the "Electricity in Our Lives" Unit.*

Progress	Group	Mean	Std. Deviation	t test	p
Inference	Control	0.23	0.30	0.31	.759
	Experiment	0.21	0.30		
Observation	Control	0.35	0.63	1.22	.227
	Experiment	0.54	0.51		
Measurement	Control	0.15	0.44	1.19	.239
	Experiment	0.29	0.37		
Classification	Control	0.44	0.43	0.28	.778
	Experiment	0.41	0.39		
Prediction	Control	0.02	0.56	2.90	.005
	Experiment	0.41	0.43		

When the difference changes for the basic science process skills, such as inference, observation, measurement, classification and prediction between the pre-test and post-tests in the experimental and the control groups are compared in Table 4, it is seen that there has been a significant increase in favour of the experimental group in terms of observation, measurement and prediction skills. When the variance quantities between the experimental and the control groups are compared with each other on a significance level of .05, it follows that there has been an increase in the prediction skill at most. According to these results, it can be stated that the utilization of the concept cartoon within argumentation based learning science improves the prediction skills of the students among the other basic science process skills.

Table 5. *The Difference Change Results in the Advanced Science Process Skills of the "Science Process Skills Scale" Intended for the "Electricity in Our Lives" Unit.*

Change	Group	Mean	Std. Deviation	t test	p
Determination of Variables	Control	0.23	0.34	1.10	.276
	Experiment	0.33	0.33		
Devising an Experiment	Control	0.06	0.31	4.37	.000
	Experiment	0.43	0.30		
Forming a Hypothesis	Control	0.35	0.42	0.47	.640
	Experiment	0.29	0.52		
Inference	Control	0.24	0.24	1.57	.123
	Experiment	0.35	0.24		
Recording the data	Control	0.19	0.57	2.35	.023
	Experiment	0.54	0.51		

When the difference changes for the advanced science process skills between the pre-test and post-tests in the experimental and the control groups are compared in Table 5, it is observed that there has been a significant increase in favour of the experimental group in their skills of determining the variables, devising an experiment, inference and interpretation, and recording the data. When the variation quantities between the experimental and the control groups are compared with each other on a significance level of 0.05, it follows that there has been an increase on the levels of devising experiments and recording the data at most. However, it is also seen that the increase rate in forming a hypothesis is higher in the control group, and when analyzed on a significance level of 0.05, such an increase appears to be of no importance. According to these results, it can be stated that the utilization of the concept cartoon within argumentation based learning science improves the students' experiment-devising and data-recording skills among the other advanced science process skills.

DISCUSSION AND CONCLUSIONS

In this study, it was investigated the effects of argumentation based concept cartoon activities on students' scientific process skills. As the result of the study, it was found out that there was a significant difference in favour of the experimental group considering the pre-test–post-test comparative analyses of the science process skills scale regarding the "Electricity in Our Lives" unit. When the basic science process skills and the advanced science process skills were compared between the groups, it was seen that there had been a positive change in favour of the experimental group in terms of these skills, however this change was significantly more positive for the experimental group only in the advanced science process skills. When the basic science process skills comprising the inference, observation, measurement, classification and prediction skills were compared between the experimental and the control groups, a significant difference was determined in favour of the experimental group only in the prediction skill. While a positive change was being observed in both of the groups in terms of the inference, observation, measurement and classification skills, there was no difference between the groups. When the advanced science process skills comprising determination of the variables, devising an experiment, forming a hypothesis, inference and data-recording were compared between the experimental and the control groups, on the other hand, it was seen that there was a significant development in the skills of devising experiments and recording data. In the skill of forming a hypothesis, however, there was a progress in favour of the control group, yet, this difference was not considered as significant.

In the concept cartoons, there are at least three scientific propositions associated with the examples from daily life. One of these propositions can be false, while others can be true and vice versa. In general, the scientific propositions which are false consist of the misconceptions put forward as the result of the researches (İngeç, 2008; Keogh, Naylor and Wilson, 1998; Naylor and Keogh, 2000; Şaşmaz-Ören, 2009; Uğurel and Moralı, 2006). The

concept of hypothesis is usually mistaken for the concepts like theory or law included within the scope of the nature of science (Abd-El-Khalick, Bell and Lederman, 1998; Aslan, Yalçın and Taşar, 2009; Doymus, Canpolat, Pınarbaşı and Bayrakceken, 2002; Bell, Lederman and Abd-El-Khalick, 2000; Çelikdemir, 2006; Haidar, 1999; Homer and Rubba,1978; Johnson-Laird and Wason, 1972; Mackay, 1971; Miller, Montplaisir, Offerdahl, Cheng and Ketterling, 2010; Rubba and Harkness, 1993; Shiang-Yao and Lederman, 2007; Özdemir, 2007; Taşar, 2003; Tatar, Karakuyu and Tüysüz, 2011). The skill of forming a hypothesis is one of the science process skills which students are most unsuccessful at. (Sinan and Uşak, 2011). Hypotheses are scientific propositions that increase the feasibility of the study by providing guidance for scientific researches and framing their borders (Lederman and Abd-El-Khalick, 1998; Matthews, 1994; Ryan and Aikenhead, 1992; Smith and Scharmann, 1999; Suppe, 1977). The concept of hypothesis refers to proposition in Latin. If a scientific proposition can be tested through scientific methods, then this proposition can be stated to be a hypothesis. As far as the findings of the study with respect to hypothesis skill were concerned, no statistically significant conclusion could be drawn between the experimental and the control groups. The reason for this could be the fact that the scientific propositions or, in other words, hypotheses contained in the concept cartoons within the method of learning based on argumentation are presented to students in a pre-packed (ready) form. In the control group, on the other hand, the fact that there was no hypothesis included in the acquisitions in the activities of the program could be shown as the reason for such an outcome. It is required that students' hypothesis skills is developed in the argumentation based learning processes and in the learning activities in which concept cartoons are utilized. During the activities where concept cartoons are used, by leaving one of the bubble speeches of the characters in the cartoon blank, the students can be asked to form an alternative hypothesis or write up a scientific proposition for it.

The prediction skill in the secondary school students is the skill observed on the lowest levels. Secondary school students were seen to have been efficient mostly in the observational and inference skills. On the other hand, they are rather insufficiently skilled in determining variables, forming a hypothesis, data collecting and devising experiments (Bağcı-Kılıç, Haymana and Bozyılmaz, 2008). When science and technology course books were analyzed in terms of science process skills, it was determined that the activities contained in the books were in large numbers for observation and inference but on a mediocre level for data collecting, devising experiments and building up models. There were not too many classification, prediction and hypothesis skills included within those books (Dökme, 2005). When the Science and Technology course books and the science process skills contained within their curriculum contents are analyzed extensively, the activities intended for prediction skill are seen to be few. In activities of this study, three activities about developing the prediction skill were added within the "Electricity in Our Lives" unit. More often than not, the development of observation, classification and comparison skills included in basic science process skills was highlighted. For this reason, it appears to be normal that in the findings of this study on the prediction skill, there is a significant difference in favour of the experimental group; because there are predictions, claims and reasons in the utilization of concept cartoons within the argumentation based learning process. Considering that the number of the argumentation based learning activities is nine in total in this study, this number is three times as much in the control group compared to the number of the activities containing prediction skills. Therefore, the development of the students' prediction skills in the experimental group is at issue.

In order to develop their advanced science process skills of students, they need to devise experiments and do extensive researches, in other words, they need to do open-ended inquiry or guided inquiry. As for the learning methods; argumentation-based learning, problem-based learning and project-based learning methods can be given as examples to these researches. The student groups that inquiry, predict and experiment can be trained in this learning process, and they can also develop their advanced science process skills. Zeren Özer and Özkan (2012) analyzed the effects of the project-based learning method on the science process skills of prospective teachers. In their study, the project-based learning was seen to have been more

effective on the basic science process skills of prospective teachers. This project-based learning method was found out to have been more effective on the skills like observation, devising experiments and making inferences. In the same study, it was highlighted that the prediction skills of prospective teachers did not develop significantly.

In conclusion, the fact that the Science and Technology Curriculum in 2005 were changed as Science Curriculum in 2013 and that learning approaches such as inquiry based learning, argumentation based learning, problem based learning etc. were adopted in new curriculum can be the valid indications in the results of this study. Utilization of the problem-based learning, argumentation-based learning and project-based learning methods within a research-inquiry based learning approach of the 2013 Science Curriculum is quite important in terms of the fact that science process skills offer diversity in the development of sub-skills. Separately, students confront the processes of proving what they believe by presenting rational reasons, predicting, evaluating evidence and thinking over counter arguments, and as well as learning the subjects conceptually, they promote their development in science process skills (Osborne, 2005). In the prospective studies, whether it may be in a argumentation based leaning or within the concept cartoon activities or within activities where both will be used, it can be proposed that the activities that are intended for enabling the students to develop their skills of forming hypotheses, making inferences and drawing conclusions be updated.

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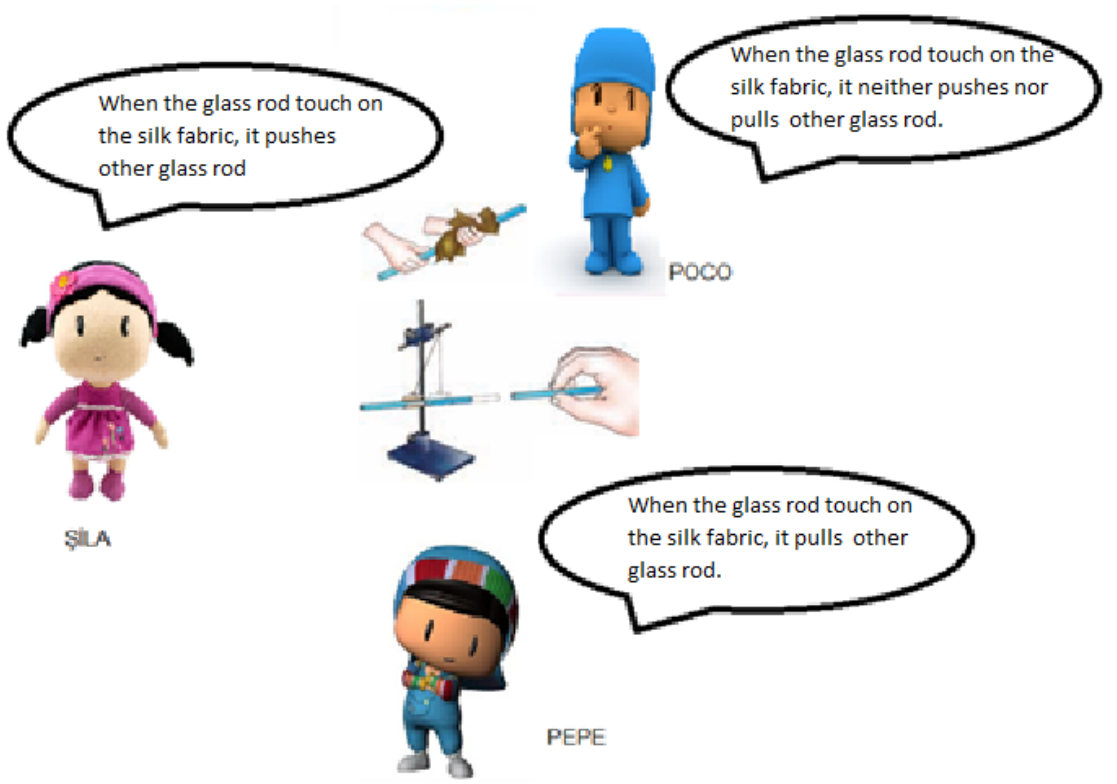
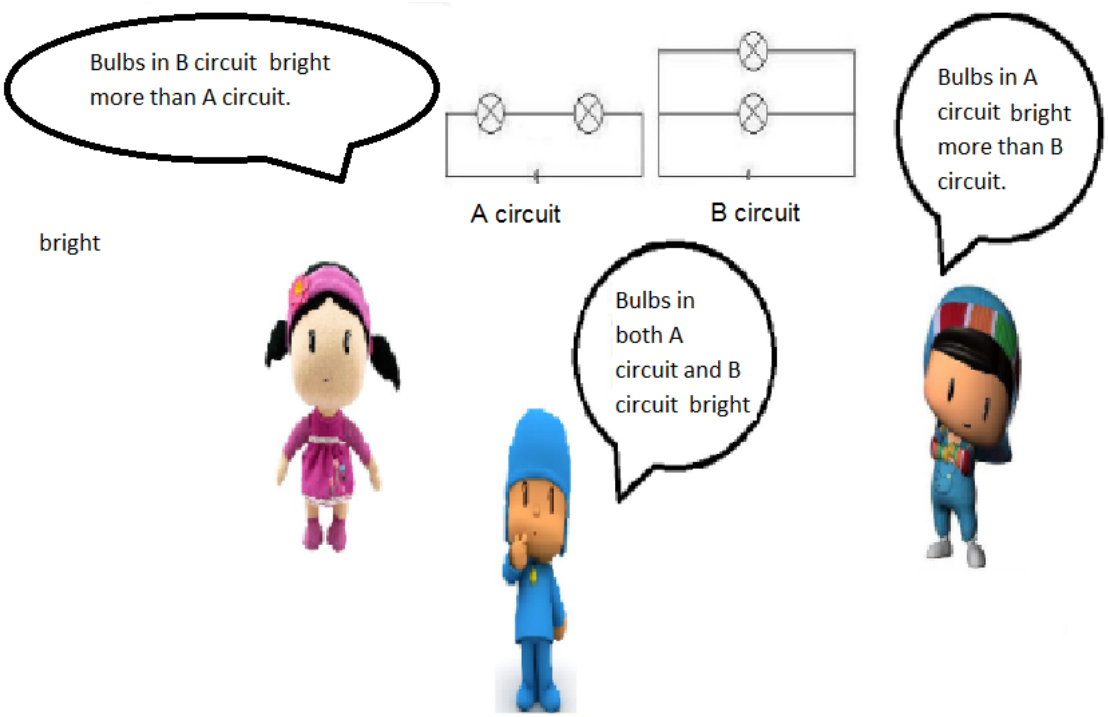
Appendix 1. "Activitiy 1. Scientific Argumentation Text About Triboelectricity"



What have I observed in the Concept Cartoons?		
What Interested me in the Concept Cartoons?		
Which of the arguments do I agree on in the Concept Cartoons? Why?		
How would I prove the argument I agreed on in the Concept Cartoons?		
Who else agrees with the other characters and what reasons do they give?		
Those agreeing with Pepe and their reason for it	Those agreeing with Şila and their reason for it	Those agreeing with Poco and their reason for it
Did I change my argument after the group debate? Yes? Because No? Because		

Appendix 2. "Activitiy 2. Scientific Argumentation Text About Electric Circuits"



What have I observed in the Concept Cartoons ?		
What Interested me in the Concept Cartoons?		
Which of the arguments do I agree on in the Concept Cartoons? Why?		
How would I prove the argument I agreed on in the Concept Cartoon?		
Who else agrees with the other characters and what reasons do they give?		
Those agreeing with Pepe and their reason for it	Those agreeing with Şila and their reason for it	Those agreeing with Poco and their reason for it
Did I change my argument after the group debate? Yes? Because No? Because		