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Hayat Bilgisi dersinde yer alan sorumluluk değeri ve iş birliği becerisinin kazandırılmasında Uzman Mantosu Yaklaşımı'nın etkisi

The effect of the Mantle of the Expert approach in acquisition of the value of responsibility and collaborative skills in life science course

Caner ÖZDEMİR, https://orcid.org/0000-0002-3511-0942
Ordu Üniversitesi, Eğitim Fakültesi, canerozdemir052@gmail.com

Tolga ERDOĞAN, https://orcid.org/0000-0001-9102-4646
İtalya Milano Konsolosluğu, Milano Eğitim Ataşeliği, tolgaerdogan.edu@gmail.com

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ÖZ

Bu çalışmanın amacı, ilkokul 3. sınıf Hayat Bilgisi dersinde yer alan sorumluluk değeri ve iş birliği becerisinin kazandırılmasında Uzman Mantosu Yaklaşımı'nın etkisini incelemektir. Araştırma, karma araştırma yöntemine uygun olarak yürütülmüştür. Verilerin toplanması, analiz edilmesi ve yorumlanmasında yakınsayan paralel desenden yararlanılmıştır. Araştırmanın nicel boyutundaki çalışma grubunu 68 ilkokul 3. sınıf öğrencisi; nitel boyutundaki çalışma grubunu ise, nicel boyutta belirlenen öğrenciler arasından seçilen 10 öğrenci oluşturmuştur. Araştırmanın verileri, araştırmacılar tarafından geliştirilen Sorumluluk Değeri Değerlendirme Ölçeği, İş Birliği Becerisi Değerlendirme Ölçeği, gözlem formu ve mülakat formu aracılığı ile toplanmıştır. Araştırmadan elde edilen nicel veriler kovaryans analizine (ANCOVA); nitel veriler ise içerik analizine tabi tutulmuştur. Araştırma sonunda, sorumluluk değeri ve iş birliği becerisi kazanmada deney grubu lehine anlamlı farklılık olduğu ortaya çıkmıştır. Araştırmada yapılan gözlemler ve mülakatlar sonucunda ise deney grubunda yer alan öğrencilerin kontrol grubunda yer alan öğrencilere göre sorumluluk değeri ve iş birliği becerisinde artışlar ve olumlu düşünceler geliştiği tespit edilmiştir. Araştırma sonunda hem Hayat Bilgisi dersinde hem de ilkokulda yer alan başka derslerde Uzman Mantosu Yaklaşımı'ndan yararlanılması gerektiği, öğretmenlerin Uzman Mantosu Yaklaşımı kullanmalarının teşvik edilmesi ve gereken eğitimleri almaları konusunda desteklenmesinin önemli olduğu, okullarda beceri ve değer eğitiminde Uzman Mantosu Yaklaşımına daha fazla yer verilmesinin önem arz ettiği, iletişim ve öz yönetim ile ilgili beceri ve değerlerin kazandırılmasında Uzman Mantosu Yaklaşımı'nın etkisinin farklı çalışmalarda ele alınabileceği yönünde öneriler sunulmuştur.

Anahtar Sözcükler: hayat bilgisi dersi, yaratıcı drama, uzman mantosu yaklaşımı, sorumluluk değeri, iş birliği becerisi

ABSTRACT

The study aims to analyze the impact of Mantle of the Expert Approach (MoE) on teaching responsibility and cooperation skills in the 3rd grade primary school Life Science course. The research followed a mixed research method. Convergent parallel design was used to collect, analyze, and interpret data. The quantitative study group consisted of 68 3rd grade primary school students, while the qualitative study group included 10 students selected from the quantitative group. The study's data were collected using scales, observation forms, and interview forms developed by the researchers. Quantitative data were analyzed using ANCOVA while qualitative data were analyzed using content analysis. The research found a significant difference in favor of the experimental group's gain in responsibility and cooperation skills. Observations and interviews showed that the experimental group students had increased responsibility values and cooperation skills compared to the control group students, along with positive thoughts development. The research concludes that the MoE should be utilized in the Life Science course and other primary school lessons. It is crucial to promote the MoE and support teachers in using it with adequate training. Additionally, it is important to prioritize the MoE in skills and values education in schools. Suggestions have been made to explore the impact of this approach on communication and self-management skills and values in future studies.

Keywords: life sciences course, creative drama, MoE, responsibility value, cooperation skill

INTRODUCTION

As social beings, humans live together with other people in the society to which they belong. The rules, traditions and values of the society we live in are first learned in the family, which is the smallest unit in society. When the child reaches school age, the school shares this responsibility with the family. The situations that students encounter at school are like a rehearsal for life. In this regard, the situations students encounter at school are of great importance in preparing them for life. Due to this importance, it can be stated that students should be able to experience the situations, skills and values they are likely to encounter in real life at school. Life Science course plays an important role in the regular and planned execution and transfer of life situations, skills and values that students are aimed to experience.

Life Science course, which is a process of establishing a bond based on natural and social realities (Sönmez, 2005), can be defined as a course that introduces the child to the society and environment in which he lives, enables him to examine it, and teaches the necessary skills to adapt to the environment (Binbaşıoğlu, 2003). According to Kabapınar (2007), who looks at the Life Science course from a broader perspective starting from the birth of the child, the Life Science course is based on the child's experiences in making sense of the world in which he lives from the moment he is born. It enables students to gain skills, values and knowledge regarding the life they will live in the future by being course that helps them recognize and understand the social, cultural and physical environment they live in. The sole purpose of the education system is not to raise academically successful individuals. In addition to this aim, the aim of the education system is to raise individuals who have acquired basic skills and values. Based on this situation, students need to embed skills and values in every aspect of their lives. Considering this requirement, it was deemed appropriate to include root values and basic life skills in the 2018 Life Science Course Curriculum. Some of the root values are friendship, self-control, respect, responsibility, and helpfulness while some of the basic life skills are research, nature protection, decision-making and cooperation (MEB, 2018). In the light of these basic skills and root values, individuals are expected to fulfill their duties fully and completely in order to adapt to the current era. While doing this, it is of great importance that they are able to work and share with other people. In addition, the value of responsibility and the ability to collaborate are skills that individuals will need throughout their lives. The importance of this haven been continuing from the moment individuals begin their journey in life. From this point of view, the importance of the responsibility value and cooperation skills, which are necessary for individuals throughout their lives and are included in the 2018 Life Science Course Curriculum, emerges.

When the meaning of the word responsibility is examined, it is defined as people's taking responsibility for the consequences of events that fall within their jurisdiction or their own behavior directly (TDK, 2024). Ginott (2009) states that responsibility emerges in the family in childhood and develops through experience, and children who are constantly criticized avoid responsibilities. For the value of responsibility to be formed and developed, it is important for individuals to grow up in an environment where they can take responsibility. In these environments, they undoubtedly need to be together and cooperate with other people. Cooperation is an integral part of life, and people have cooperated throughout their lives to achieve their goals. Nichols (2006), collaboration; In general terms, it means working together for a common goal or certain achievements. Collaboration skills include group work that maximizes learning while having fun while minimizing the emergence of undesirable situations (Felder & Brent, 2007). Based on the definitions, it is seen that it is important to provide students with these skills and values, which will be necessary for them to establish their personalities in the Life Science course.

In the Life Science course, whose basic approach suggests that students come to school with their own life experience and experience, students have individual differences and, therefore, they structure their learning processes according to themselves, which makes it significant for teachers to design teaching methods in which students can actively participate in the learning

processes to gain the value of responsibility and cooperation skills. One of the methods in which the student can actively participate in the process is the creative drama method. Creative drama is based on the life experiences of the members of a group, creating a purpose, idea, improvisation, role playing (taking a role). It is animated by using techniques (Adıgüzel, 2006, p. 21). There are many benefits of using the creative drama method in educational environments. It is possible to list these benefits as follows: i) The individual's empathy ability improves and he/she can approach every situation from different perspectives, ii) People can express themselves freely, iii)The individual's motivation to learn increases and enables active participation in the educational process, iv)The sense and skills of solidarity, sharing and cooperation develop (Courtney; 1995; Gönen , 2010).

The creative drama process has the flexibility to be shaped according to the interests and abilities of the students. Creative drama, which supports collaborative learning through group work, also paves the way for students to be responsible for their own learning. He advocated that people should have been responsible for their own learning and introduced creative drama in the early 1950s; Dorothy Heathcote (Bolton, 1984; Heathcote, 1973), who thinks that science and humanity should serve at least as much as art unlike the creative drama pioneers before her, puts forward four different models in a conference at the National Association for Drama Education and listed these models as follows.

- Human in Drama/Confusion to Discover People
- Mantle of the Expert
- Commission Work
- Rolling the Role

These models consider characteristics such as teacher and student responsibilities, curriculum, course content and student age. Each model has different functions and features. Therefore, the preferred model may change. Factors such as the group to be used for the activity, the disciplines to collaborate with, the working time, the number of students and classes, determine which model will be more functional (Özen, 2011). One of Dorothy Heathcote's models, which suggests that each student is responsible for their own learning and that students should be viewed as experts with the knowledge they have, is the MoE (Özen, 2011). MoE enables students to take an expert view of the topics they are researching. In this approach, students look at the problem they are researching as experts. In this way, they take responsibility in a professional manner and work on the problem (Morgan & Saxton, 1995).

It is possible to mention that there are many studies in the literature on the use of the creative drama method in the Life Science course in primary schools (Av-Hartuç, 2015; Bilek, 2009; Çelen & Vural, 2009). These studies in the literature demonstrate the effectiveness of the creative drama method. However, in the literature, no creative drama studies supported by the MoE conducted on the Life Science course have been found. With the current research, we tried to observe the application of a different creative drama approach in the Life Science course and to contribute to the increase in the applicability of the creative drama method by feeding it with different approaches.

When the studies on skills and value education in Life Science course are analysed, it can be stated that these studies are generally related to textbooks (Bahçe, 2010; Eryılmaz, 2016; Ütkür & Açıkalın, 2012). In addition, some studies aimed only to determine the strategies and methods used in skill and value education (Barlas, 2015; Selanik-Ay & Acar, 2016; Yıldırım & Turan, 2015). However, the number of studies aiming to teach skills and values in the Life Science course with a new model or a new application is quite limited (Brady, 2008; Demir, 2008; Kılıç & Gültekin, 2015). Considering this limitation; It is thought that this research, which aims to educate skills and values with a new approach in the Life Science course, will contribute to the literature.

Additionally, when the literature is examined, it can be seen that the studies on the MoE are the ones aiming to introduce the MoE (Çelen, 2008) to examine the effectiveness of this approach (Bruyère, 2017; Sayers, 2012; Sezerel & Gökbulut, 2015). The main purpose of the MoE is to approach students as experts in their fields and organize teaching activities accordingly. Students are given various tasks during the teaching process. These tasks push them to research and question. Accordingly, students approach the learning process as experts. The studies in the relevant literature were generally conducted with teachers and teacher candidates (Adıgüzel, 2006; Sayers, 2012; Sezerel & Gökbulut, 2015; Özen & Adıgüzel, 2018). It can be stated that this situation arises from the idea that it may be difficult to try a new approach on students in the younger age group (Sayers, 2012). In this context, this research, conducted with 3rd grade primary school students, is different from other studies in that it used a different sample than the sample group frequently preferred in the relevant literature.

Based on the above information, the main purpose of the research is to examine the effect of the MoE developed by Dorothy Heathcote (1974) in teaching the value of responsibility and cooperation skills in the 3rd grade primary school Life Science course. In this vein, the following research questions were created depending on the main purpose.

1. Is there a significant difference between experimental and control group students in terms of responsibility value achievements?
2. Is there a significant difference between experimental and control group students in terms of collaboration skill achievements?
3. How is the development of the experimental group and control group students in the process?
4. What do the experimental group students think about Moe?

METHOD

Research Model

Mixed method was used in the research. Mixed method is a research method that combines qualitative and quantitative research approaches, methods, and techniques in solving research problems and provides more effective suggestions in solving the problem (Creswell, 2014, p. 72). In this research, where qualitative and quantitative research methods were used together, it was decided to use the convergent parallel design as the research design because the qualitative and quantitative stages used were interactive with each other, carried out simultaneously, had equal priority and importance, and were combined at the interpretation stage. In the convergent parallel design, qualitative and quantitative data are collected simultaneously and are equally important. The analysis processes of qualitative and quantitative data continue separately but are combined at the interpretation stage of the research. It is appropriate to use the convergent parallel design when a researcher needs to collect both qualitative and quantitative data within a certain period and values equally in accessing and analyzing both qualitative and quantitative data to understand the problem of the research (Creswell & Plano-Clark, 2007).

Participants

Due to the use of mixed research method in the research, different processes were followed in creating the study group in quantitative and qualitative dimensions. In the quantitative dimension of the research, the study group consists of 68 primary school 3rd grade students selected using the convenient case sampling method. The study group in the qualitative dimension of the research consists of 10 students selected from among the students determined in the quantitative dimension. These students were given codes in order not to reveal the participant's identity. The codes given to the students who were observed during the process and interviewed at the end of the process; the students selected for the experimental group were

P1, P2, P3, P4 and P5, while the students selected for the control group were P6, P7, P8, P9, P10. 5 of the students participating in the research are boys (P1, P2, P7, P9, P10) and 5 are girls (P3, P4, P5, P6, P8).

Data Collection Tools

In this study, which was structured according to the convergent parallel design within the mixed research method, quantitative and qualitative data collection tools were used simultaneously in the research process. While the Collaboration Skill Evaluation Scale and Responsibility Value Evaluation Scale were used as quantitative data collection tools in the research, Semi-structured interview form and observation forms were used as qualitative data collection tools.

Collaboration skills evaluation scale

The 3-point Likert type scale prepared by the researchers, aiming to measure the cooperation skill level of 3rd grade primary school students in the Life Science course, has 3 sub-dimensions and 13 items. As for the subdimensions of the scale, sense of belonging, interpersonal interaction and business awareness were determined. KMO value .905; It can be stated that the scale, whose Cronbach Alpha internal consistency coefficient was calculated as .917, is a valid and reliable scale (DeVellis, 2003; Deryakulu & Büyüköztürk, 2005).

Responsibility value evaluation scale

The scale, prepared by the researchers in a 3-point Likert type, aiming to measure the responsibility value level of primary school 3rd grade students in the Life Science course, has 3 sub-dimensions and 14 items. The sub-dimensions of the scale are as follows; group awareness, task awareness and communication responsibilities. KMO value .918; It can be stated that the scale, whose Cronbach Alpha internal consistency coefficient was calculated as .917, is a valid and reliable scale (DeVellis, 2003; Deryakulu & Büyüköztürk, 2005).

Observation form

The working group, which is included in the qualitative dimension of the research, was observed by the researchers throughout the research process to monitor their development in gaining responsibility values and cooperation skills. To create the observation form used in the research, a literature review was conducted and an item pool consisted of 16 questions was created. The item pool was sent to three field experts and their opinions were taken. In line with expert opinions, a draft observation form was created by removing two items from the item pool. The created draft form was tested within the scope of the pilot application of the research. No problems were identified in the pilot application of the draft form, and it was decided to use the 14-question draft form as the main form. If the target behavior in the observation form is not observed at all, it is scored as one point, if it is partially observed, it is scored as two points, and if it is observed, it is scored as three points.

Semi-structured interview form

In the research, interviews were conducted with five students from the experimental group. In the study, a semi-structured interview form was developed by the researchers to determine the students' thoughts about the Life Science course prepared in accordance with the MoE and to support the observation results. The opinions of three subject area experts, one classroom teacher and one grammar expert were received regarding the prepared interview form. Then, a preliminary interview was held with three students and at the end of these interviews, the interview form was given its final form. The prepared interview form consisted of 10 questions, and the interviews with each student lasted an average of 10-15 minutes. Additionally, interviews were conducted individually and face to face with each student in a quiet classroom environment.

Studies to ensure validity and reliability of qualitative data

Validity and reliability were tried to be ensured in the data obtained from the qualitative part of the research. Providing students with information about the research process, participating in the research voluntarily, and keeping their names confidential are efforts to ensure the reliability of the research. In addition, presenting the data collection tools and drama activities to be used in the research to expert opinions and trying to create diversity in data collection tools are measures taken to increase the validity of the research.

Data Analysis

The quantitative dimension of the research was structured according to the quasi-experimental design. Quantitative data were subjected to analysis of covariance (ANCOVA). Stating that data analysis can be carried out with different approaches in studies structured according to the quasi-experimental design, Büyüköztürk (2016) states that if the main purpose of the research is to determine whether the dependent variable differs in the experimental and control groups, that is, to determine the effect of the experimental procedure, it is appropriate to use single-factor ANCOVA, which is one of these approaches.

The data in the qualitative dimension of the research was analyzed by subjecting it to content analysis, which includes analyzing the data, determining the categories, and arranging the categories. The aim of content analysis is to reach concepts and relationships that can explain the collected data. It is aimed to define the data through content analysis and to reveal the facts that may be hidden in the data (Yıldırım & Şimşek, 2013).

Application of Research

The MoE is a creative drama approach in which learners are active (Heathcote, 1974). In this approach, students look at events with an expert eye. The students' expert eye helps them take responsibility for their learning processes and ensure permanent learning. In this study, primary school students took on the role of experts for skill and value education. They performed a task-oriented learning process by taking on various roles (e.g., people working in the Ministry of Foreign Affairs, people providing camp services) in the Life Science course. The application processes carried out in the experimental and control groups in the research are as follows:

Application processes performed in the experimental group

- The necessary official permissions were obtained for the research.
- The school administration where the application was planned to be carried out was contacted and informed about the research.
- An interview was held with the teacher of the class that would be the experimental group in the research and information was given about the content, subject and application process of the research.
- Following the teacher's briefing, students were given information about the research topic, the research process, and the MoE.
- Parents of the students were informed in writing about the research process through the classroom teacher, and their permission was obtained for their students to participate in the research.
- Within the scope of the pre-test application, the Collaboration Skill Evaluation Scale and the Responsibility Value Evaluation Scale were applied to the students.
- Weekly Life Science course plans structured in accordance with the MoE were delivered to the classroom teacher, and ideas were exchanged on the plans every week before implementation.
- Life Science course was conducted by the classroom teacher of the experimental group in accordance with the MoE for 10 weeks.

- In the Life Science course, which was structured in accordance with the MoE, the achievements of the Life in Our Country and Life in Nature units were discussed. Within the scope of the Life in Our Country unit, students; It was reported that they were experts assigned by the Ministry of Foreign Affairs to promote our country at a fair to be held abroad, and the study was structured in this way. Within the scope of the Life in Nature unit, students; It was reported that there were experts working in an organization that provided camping services during school holidays, and the study was structured in this way.
- During the application process, 5 predetermined students were observed by the researcher.
- After the completion of the applications, the Collaboration Skill Evaluation Scale and Responsibility Value Evaluation Scale were applied to the students within the scope of the post-test application.
- After the application of the post-tests, interviews were conducted with 5 students who were previously determined and observed throughout the research process, about the application process.

Implementation processes performed in the control group

The research process was carried out in the classroom designated as the control group by the classroom's own teacher. Before starting the research, the Collaboration Skill Evaluation Scale and Responsibility Value Evaluation Scale were applied to the students within the scope of the pre-test application. The classroom teacher conducted the Life Science course based on the 2018 Life Science Course Curriculum and used the teaching strategies, methods, and techniques that he determined during the lessons. In the control group, the Collaboration Skill Evaluation Scale and Responsibility Value Evaluation Scale were used as posttests at the end of the research process. Additionally, 5 students selected from the control group were observed throughout the research process.

Research Ethics

All the rules stated in the "Higher Education Institutions Scientific Research and Publication Ethics Directive" were followed in the entire process from the planning, implementation, data collection to the analysis of the data. None of the actions specified under the second section of the Directive, "Scientific Research and Publication Ethics Actions" have been carried out.

During the writing process of this study, scientific, ethical and citation rules were followed; no falsification was made on the collected data and this study was not sent to any other academic media for evaluation.

Before the research, a permission document approved by the Governor's Office and the Provincial Directorate of National Education was obtained so that the application could be carried out in official primary schools (dated 06.12.2018 and numbered 81614018-63). In addition, participation in the research was conducted based on the voluntariness of the students, and the parent permission petition forms were obtained from the parents of the students.

Research ethics committee approval information

Name of the ethics committee: Social and Human Sciences Ethics Committee of Trabzon University

Date of the decision: 06.12.2018

Document issue number: 81614018-63

RESULTS

Findings Regarding the First Research Question

The first research question of the study, "Is there a significant difference between experimental and control group students in terms of responsibility value achievements?" To find an answer to the question, a single-factor ANCOVA analysis was performed between groups. The analysis results obtained are presented in Table 1.

Table 1

ANCOVA Results According to the Responsibility Value Evaluation Scale Corrected Posttest Scores of the Students in the Experimental and Control Groups

	Variance Source	Sum of Squares	sd.	Mean Squares	F	p	Partial Eta Squared
Responsibility Value	Pretest	0.004	1	0.004	0.071	0.790	0.001
	Group	1.065	1	1.065	18.751	0.000	0.221
	Mistake	3.749	66	0.057			
	Total	334.655	69				
Sense of Belonging	Pretest	0.195	1	0.195	0.900	0.346	0.013
	Group	2.797	1	2.797	12.936	0.001	0.164
	Mistake	14.269	66	0.216			
	Total	421.659	69				
Duty Consciousness	Pretest	0.083	1	0.083	1.519	0.222	0.023
	Group	0.237	1	0.237	4.331	0.41	0.062
	Mistake	3.611	66	0.055			
	Total	324.905	69				
Communication Responsibilities	Pretest	0.378	1	0.378	2.010	0.161	0.030
	Group	1.816	1	1.816	9.661	0.003	0.128
	Mistake	12.406	66	0.188			
	Total	295.519	69				

When the findings in Table 1 are examined; When the pre-test scores were taken under control, there was no statistically significant difference between the task awareness ($F(1,66)= 4.331$, $p>.05$) scores of the students in the experimental and control groups, in favor of the experimental group; responsibility value ($F(1,66)= 18.751$, $p<.05$), sense of belonging ($F(1,66)= 12.936$, $p<.05$), communication responsibilities ($F(1,66)= 9.661$, p< It was determined that there was a statistically significant difference between the .05) scores in favor of the experimental group. Based on this, it is possible to state that the MoE has a positive effect on primary school 3rd grade students' gaining the value of responsibility in the Life Science course.

Findings Regarding the Second Research Question

The second research question of the study is "Is there a significant difference between experimental and control group students in terms of collaboration skill achievements?" To find an answer to the question, a single-factor ANCOVA analysis was performed between groups. The analysis results obtained are presented in Table 2.

Table 2
ANCOVA Results According to the Collaboration Skills Evaluation Scale Corrected Posttest Scores of the Students in the Experimental and Control Groups

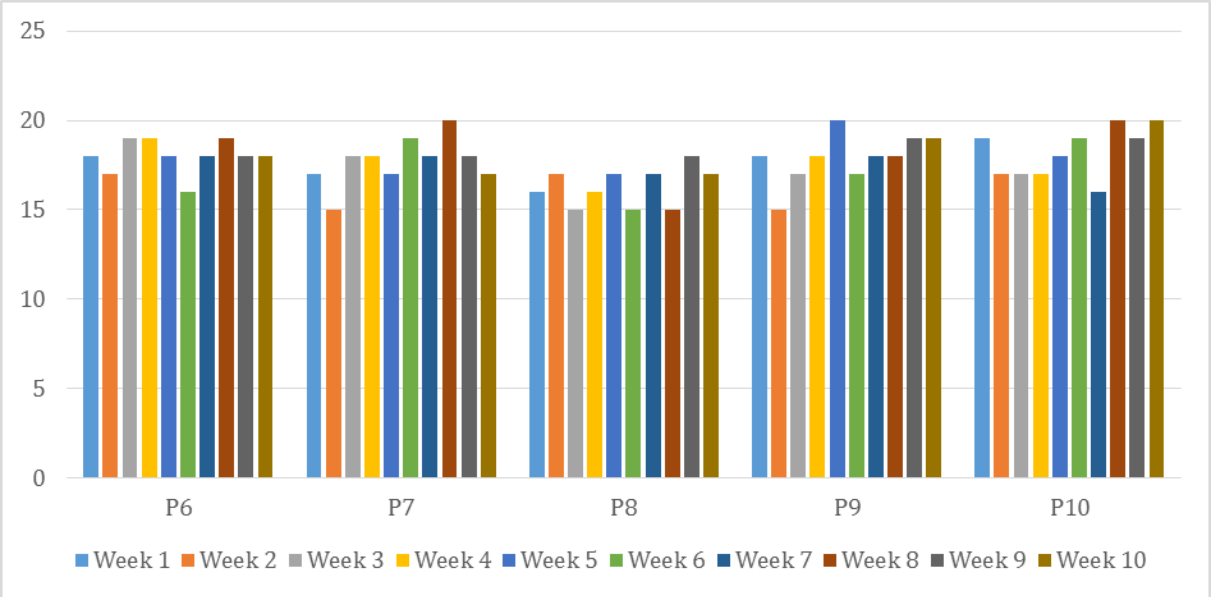
	Variance Source	Sum of Squares	sd.	Mean Squares	F	p	Partial Eta Squared
Collaboration Skill	Pretest	0.009	1	0.009	0.311	0.579	0.005
	Group	1.887	1	1.887	66.712	0.000	0.503
	Mistake	1.867	66	0.028			
	Total	362.700	69				
Group Awareness	Pretest	0.290	1	0.290	2.188	0.144	0.032
	Group	0.820	1	0.820	6.188	0.015	0.086
	Mistake	8.742	66	0.132			
	Total	406.704	69				
Interpersonal Interaction	Pretest	1.358	1	1.358	5,053	0.028	0.071
	Group	2.946	1	2.946	10.958	0.002	0.142
	Mistake	17.743	66	0.269			
	Total	199.563	69				
Business Consciousness	Pretest	0.345	1	0.345	2.523	0.117	0.37
	Group	1.605	1	1.605	11.749	0.001	0.151
	Mistake	9.018	66	0.137			
	Total	369.237	69				

When the findings in Table 2 are examined; When the pre-test scores were taken under control, the students in the experimental and control groups had significant differences in cooperation skills ($F(1,66)= 66.712$, $p<.05$), group awareness ($F(1,66)=6.188$, $p<.05$), interpersonal interaction. It was determined that there was a statistically significant difference between ($F(1,66)= 10.958$, $p<.05$) and work awareness scores ($F(1,66)= 11.749$, $p<.05$), in favor of the experimental group. Based on this, it is possible to state that the MoE has a positive effect on primary school 3rd grade students' acquisition of the cooperation skills in the Life Science course.

Findings Regarding the Third Research Question

The third research question of the study is “How is the development of the experimental group and control group students in the process?” To find an answer to the question, 5 students each selected from the experimental and control groups were observed by the researcher throughout the research process. As a result of the observations, the total scores the students received each week were determined. Determination of total scores; It provides information about which behavior is observed and at what level in students in the experimental and control groups each week.

Figure 1
Total Scores of the Students in the Control Group Received from the Observation Form



When Figure 1 is examined, no weekly stability can be seen between the total scores received from the observation form by the students in the control group. The scores obtained by the observed students in any week appear to decrease or increase in the weeks before or after. This situation proves that the behaviors aimed to be observed in the students in the Life Science course have not been fully achieved, and that the activities included in the 2018 Life Science Course Curriculum; It is thought that it is not sufficient to reveal and observe the behaviors included in the observation form, which form the basis of the value of cooperation skills and responsibility.

Depending on the main purpose of the research; In order to examine the effect of the MoE on teaching students the value of cooperation skills and responsibility, the Life Science course of the experimental group was conducted by the teacher with the MoE and observed by the researcher. The total scores of the students observed by the researcher in the experimental group for 10 weeks are graphed and presented below.

Figure 2
Total Scores of the Students in the Experimental Group Received from the Observation Form

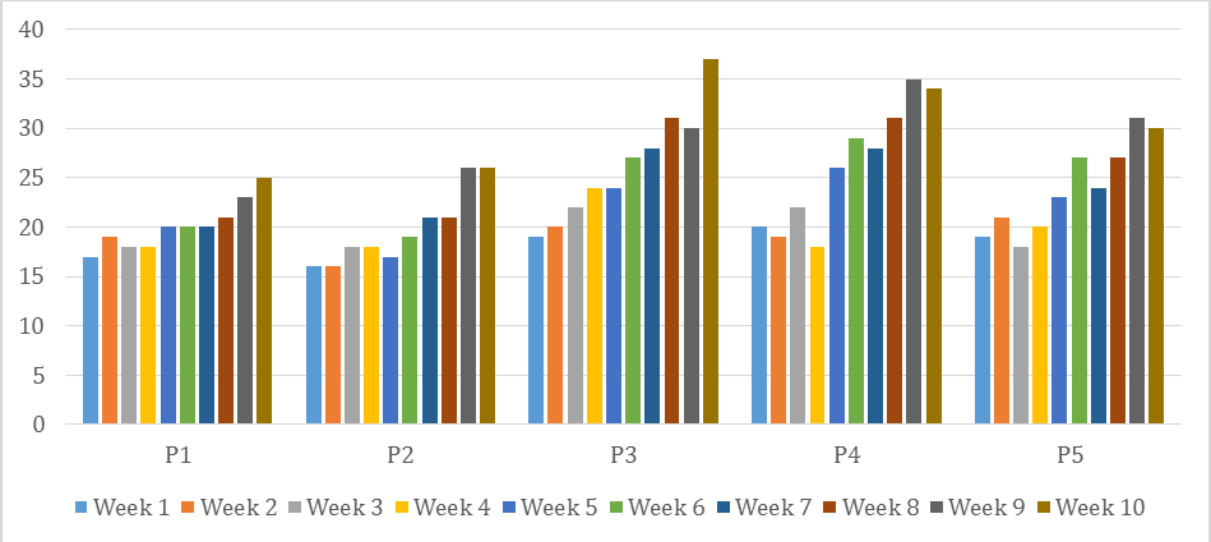


Figure 2 shows the total scores received from the observation form each week by the students observed in the experimental group, where activities structured in accordance with the MoE were applied in the Life Science course throughout the research process. When the scores received by the students are examined, it is noteworthy that there is a steady increase in scores starting from the first weeks. The increase in students' scores compared to the previous week constitutes evidence that the behaviors targeted to be observed in the students emerged and were observed during the research process. Considering that the behaviors observed in the students in the experimental group where the MoE was applied form the basis of the value of cooperation skills and responsibility, it can be commented that the MoE is effective in teaching students the value of cooperation skills and responsibility.

Findings Regarding the Fourth Research Question

The fourth research question of the study is "What do the experimental group students think about Moe?" To find an answer to the question, at the end of the research process, the opinions of five students in the experimental group; It was examined in the context of his views on "group work", "collaboration skills", "responsibility value" and "MoE". Students' opinions were subjected to content analysis and similar expressions were collected under common codes and presented in tables.

Table 3
Students' Opinions' about Group Work

	Students' Thoughts About Group Work			Are Group Works Useful?	
Students	Collaborate	Gathering of people	Distribution of work	Yes	No
P1			✓	Speeding up work	-
P2			✓	Collaboration	-
P3		✓		Instructive	-
P4		✓		Funny	-
P5	✓			Instructive	-

When Table 3 is examined, students' opinions about group work are; It is seen that they are grouped under the headings of collaboration, bringing people together and distributing work. Group work: While P1 and P2 describe it as "distribution of work", P3 and P4 describe it as "gathering of people". P5, on the other hand, evaluates group work as "collaborate". P1 expresses his opinion on this subject as follows:

> "Group work means distribution… In other words, you give one job to someone and another job to someone else. As a group, everyone has done something…" (P1).

P4, who thinks that people can come together and create better products through group work rather than doing a job alone, expresses his thoughts about group work as follows:

> "It's about all the friends coming together and doing something right and well. Group studies are studies carried out when one person alone is not enough… "(P4).

Table 4
Students' Opinions' about Collaboration Skills

	What is Collaboration?			Have You Collaborated?		
Students	Doing something with a group	Exchange of ideas	Solidarity	Yes	No	What Happens If We Don't Cooperate?
P1	✓			Distribution of tasks	-	Things take longer
P2		✓		Exchange of ideas	-	Things get tough
P3	✓			Solidarity	-	It gets messy
P4			✓	Solidarity	-	It gets messy
P5			✓	Distribution of tasks	-	Things take longer

When Table 4 is examined, students' opinions about collaboration skills are collected under three headings. These are doing a job with a group means exchanging ideas and helping each other. While P1 and P3 describe collaboration as "doing somethink with a group", P2 defines it as "exchange of ideas". P4 and P5 describe cooperation as "solidarity".

P1 defines collaboration as doing a job with a group; He expresses his thoughts on this subject as follows:

> "In my opinion, collaboration means doing something together. For example, there is something to move. One of them can't lift it and the other one helps him. Neither of them can handle it, others come to help…" (P1).

As P3 stated who considers collaboration as the ability to do a job in a group, expresses this idea as follows:

> "In my opinion, collaboration means everyone coming together and working. For example, if I do something, my friend does something, and someone else does something else, the work will be completed easily and there will be cooperation." (P3).

Table 5
Students' Opinions' about Responsibility Value

	What is Responsibility?		Have You Fulfilled Your Responsibilities?		
Students	Keep your promise	Fulfill one's duty	Yes	No	What Happens If We Do Not Fulfill Our Responsibilities?
P1	✓		Assigned tasks were completed	-	The group disbands
P2		✓	Assigned tasks were completed	-	No product can be placed
P3	✓		Everyone kept their word	-	No product can be placed
P4		✓	Task distribution has been made	-	No product can be placed
P5		✓	Assigned tasks were completed	-	It gets messy

When Table 5 is examined, students' opinions about the value of responsibility are collected under two headings. These; Keeping your word and fulfilling your duty. Responsibility value;

While P1 and P3 describe it as "keep your promise"; P2, P4 and P5 describe it as "fulfill one's duty".

P1, who considers the value of responsibility as keeping one's promise, expresses his thoughts on this issue as follows:

> "When I think of responsibility, what comes to my mind is people keeping their promises. Keeping promises is something everyone should do. That's what I think..." (P1).

P3, who agrees with P1 and describes the value of responsibility as keeping one's word, expresses this opinion as follows:

> "I think responsibility is the promise we make to take on a task…" (P3).

Table 6
Students' Opinions' about MoE

	What are your thoughts on the MoE?			
Students	Developer	Entertaining	Integrative	Instructive
P1	✓	✓		
P2		✓		✓
P3	✓		✓	
P4		✓		
P5			✓	✓

When Table 6 is examined, it is seen that the students do not have any negative thoughts about the MoE. As a matter of fact, students use the MoE; He evaluates it as improving, entertaining, integrative, and instructive.

P1, who evaluated the MoE as "improving" and "entertaining", stated that he constantly discovered new things throughout the research and thus improved himself. Describing the MoE as "entertaining" and "instructive", P2 stated that he had a lot of fun working with his friends during the process and that he learned many things while having fun.

P3 stated that he had the opportunity to work together with his friends thanks to the MoE and stated that the approach was "integrative" and "developing". However, while P4 stated that the approach was "entertaining", P5 stated that it was "integrative" and "instructive" and made the following statement on this subject:

> "We became experts... It was very nice... We were always together while working. It was good to work with our friends. We worked together with this approach… We learned the subjects we needed to learn well. I liked it very much…" (P5).

CONCLUSION and DISCUSSION

When the post-test scores of the experimental and control groups, which were determined to be equal in terms of responsibility value perceptions before the application process, were examined at the end of the application process, it was revealed that there was a significant difference in favor of the experimental group. This difference shows that there is an increase in the responsibility value perception of the students in the experimental group at the end of the application. Based on this finding, it can be said that the MoE has a positive effect on teaching the value of responsibility in the 3rd grade primary school Life Science course. The reason for this situation is that creative drama method involves each individual in the learning process and gives importance to individual responsibilities. Like this result reached in the research, Navarro (2011), who considers creative drama as a method that provides the opportunity to experience and test real-life situations, argues that the creative drama method is effective in acquiring responsibility as a requirement of social life. With the MoE applied in the research, students

were given flexibility and the learning process evolved in a way that attracted the attention of the students. This situation that emerged in the research is a result of using the creative drama method, which includes features such as flexibility, activity, and spontaneity in value education. Like the findings obtained from the research, when the relevant literature is examined, it is possible to come across studies in which the creative drama method is frequently used in values education (Afdal, 2007; Bacanlı, 2007; Dilmaç, 2007). Can (2008) and Alak (2011), who stated in their studies that the method most used by teachers in values education is the creative drama method, stated that teachers frequently use this method in values education because it gives students the opportunity to be active and take responsibility during the process. In his research, Barcın (2018) concluded that using the creative drama method in values education is very effective in imparting values, concretizes the learning process, and students develop positive attitudes towards values. Gürol and Serhatlıoğlu (2009), in their literature review about value education and creative drama method, stated that the creative drama method is one of the effective methods that can be used to gain values. Based on this, it is possible to say that the results obtained from the studies in the literature support the conclusion obtained from the research that 'the creative drama method is effective in value education'.

In the research, when the post-test scores of the experimental and control groups, which were determined to be equivalent in terms of their perception of cooperation skills before the application, were examined at the end of the application process, it was revealed that there was a significant difference in favor of the experimental group. This difference shows that the students in the experimental group had an increase in their perception of collaboration skills at the end of the application. Based on this finding, it is possible to conclude that the MoE has a positive effect on the acquisition of cooperation skills in the 3rd grade primary school Life Science course. This situation is thought to be because MOE has features such as working in groups, sharing knowledge and experience, which are necessary for students to acquire skills. Collaboration skill is a skill considered among the 21st century skills. The skills called 21st century skills are the skills that are required for individuals to live their lives in a more qualified way, to analyze the events in their environment or society from different perspectives, to solve the problems they encounter more easily and to be more successful in their professional and social lives (Aygün, Atalay, Kılıç & Yaşar, 2016). Although there is no definitive classification of 21st century skills, these skills are generally learning and innovative skills (creative thinking, critical thinking, innovation, problem solving, communication, collaboration, learning to learn), life and career skills (flexibility, adaptability, responsibility, entrepreneurship, social and cultural skills, productivity, leadership), knowledge, media and technology skills (media literacy, information literacy, information and communication technologies literacy) are discussed in three different themes (Partnership for 21st Century Skills, 2009). In our age, the increasing importance of information and communication in human life has led to a similar increase in the need for 21st century skills. In this context, these skills should be acquired by individuals in an effective, short-term, and permanent way.

In the research, the creative drama method was used to teach students the collaboration skill, which is one of the 21st century skills, and at the end of the research, it was concluded that the creative drama method had a positive effect on gaining collaboration skills. In this case, it is possible to state that the creative drama method has features such as providing students with realistic learning environments and leading them to questioning. While Wilson (2002) argues that modeling, creative drama, natural teaching, and role playing are effective in skill training; Similarly, Freeman, Sullivan, and Fulton (2003) argued in their study that the creative drama method is one of the methods that can be frequently used for skill training. Karadağ, Korkmaz and Çalışkan (2007) examined the effectiveness of the creative drama method in teaching Life Science course according to the cognitive domain stages and concluded that the creative drama method increased students' interest in the course, ensured permanence in learning and was very effective in gaining skills in students. Depending on the results of the research, Karadağ, Korkmaz and Çalışkan (2007) suggested that students should prefer methods such as creative

drama method in which they can actively participate in skill education, instead of traditional teaching methods. The results obtained from the studies in the literature support the conclusion that the MoE, an approach used in the creative drama method, has a positive effect on teaching the cooperation skills in the 3rd grade primary school Life Science course.

The third research question created depending on the main purpose of the research; "How is the development of the experimental group and control group students in the process?" It is in the form. In the study, to find an answer to this question, five students each selected from the experimental and control groups were observed by the researcher throughout the application period. The data obtained from the observations made in the research were subjected to content analysis. As a result of the analysis of the data, various codes were reached and these codes were determined as cooperation, courtesy, respect for ideas, initiative, responsibility, cooperation, support, apologizing, group awareness, duty awareness, focus, willingness, and joint action. The codes that emerged in the research are closely related to the responsibility value and cooperation skills that are desired to be developed in students in the research. As a matter of fact, in relation to the literature, it is possible to talk about the existence of codes that emerge from observations as the basis of the skills and values that are aimed to be developed in students. However, observing the research process and identifying the codes that emerged in the observations allow us to closely examine the effect of the MoE on gaining cooperation skills and responsibility values to the students in the experimental group. In addition, it is possible to determine the differences between the two groups during the application with the help of observations made in the control group. In the research, it was observed that if students cooperated, they completed the assigned tasks in a shorter time and more effectively, and thanks to cooperation, each student adopted their own duties and responsibilities better. From this point of view, it is possible to say that cooperation has a positive effect on cooperation skills and responsibility value. Individuals who cooperate and work in groups find it easier to share and take responsibility (Aral & Al., 1999). The Life Science course, structured according to the MoE in research, is designed to allow each student to interact with each other. Thanks to this interaction between students, they can ask for help from each other and the teacher without hesitation. As a matter of fact, when students are afraid of each other and cannot ask for help when they need it; They may become shier personally and begin to take less responsibility and cooperate less in work groups. In addition, it has been determined that there is more interaction and communication in study groups consisting of students who ask for help from their friends when necessary or who voluntarily help their friends who ask for help, compared to other groups. Like this result reached in the research, Milstein (1999) also stated in his research that the sense of responsibility and cooperation contribute positively to the group culture.

The fourth research question created depending on the main purpose of the research; "What do the experimental group students think about Moe?" It is in the form. To find an answer to this question in the research, semi-structured interviews were held at the end of the research with five students selected from the experimental group for observation. The data obtained from the interviews conducted at the end of the research were subjected to content analysis. As a result of the analysis, various codes and themes were reached. Themes reached are "Group work", "Collaboration skill", "Responsibility value" and " MoE ", and the codes obtained from the analyzes were included under the relevant themes. The first theme obtained from the interviews with the students is group work. In the research, students took part in subcommittees formed by experts. Each commission is an expert group consisting of five to six students. These groups perform the tasks given by the teacher and then present their product, report, shares with other subcommittees. In this way, students are constantly engaged in group work throughout the research. At this stage of the research, it was aimed to determine the students' opinions about their group work. As a matter of fact, group work consisting of people who come together to act jointly to achieve a certain goal (Johnson, Johnson & Smith, 1998) is thought to be effective in helping students gain cooperation skills and responsibility values. Like the results reached in the research, Schmer and Ward-Smith (2011) and Cohen, Manion and Morrison (1996) stated in

their studies that in group studies, individuals come together to collaborate in small teams and thus they can take on their own learning responsibilities. Another theme obtained from the interviews with students is collaboration skills. As a result of the interviews, students' collaboration skills; It has been revealed that they consider doing work in a group as exchanging ideas and helping each other. Yıldız (1999), who defines cooperation as a skill that maximizes social interactions while doing a job, pointed out that cooperation between individuals increases with this skill. Like the results obtained from the research, Eisenberg and Mussen (1997) emphasize that cooperation is an important social behavior in the development of cooperation skills. Another theme obtained from the interviews with students at the end of the research is the value of responsibility. In the research, an attempt was made to provide students with the value of responsibility as well as cooperation skills through the MoE. In this part of the research, students' thoughts about the value of responsibility were tried to be determined through interviews held at the end of the application. As a result of the interviews with the students, it was determined that the students value responsibility; It has been revealed that they consider keeping their word and fulfilling their duty. Studies conducted by Nelson and Low (2004) and Ruyter (2002), who define responsibility as a value, revealed that sharing assigned tasks is easier and more effective thanks to the value of responsibility, like the results obtained in the research. The last theme obtained from the interviews with the students at the end of the research is the MoE. From the interviews conducted in the research, it was revealed that the students had positive thoughts about the MoE. The basis of these thoughts of the students lies in their evaluation of the MoE as developing, entertaining, integrative, and instructive. In the research conducted by Sezerel and Özoğul (2019), which aimed to evaluate the opinions of students studying in the Tourism Guidance Program regarding the MoE, it was concluded that the students evaluated this approach as a self-improving and instructive approach. In addition, the research revealed that students saw the MoE as a very fun and enjoyable approach. Similarly, Carroll (2009), who compared educational games with the MoE in his research, stated that students found this approach entertaining. In his research on Dorothy Heathcote, Huxtable (2009) discussed the MoE as an approach that keeps students together through group work and enables them to enjoy the teaching process. In the light of the research in the literature and based on student opinions, it is possible to conclude that students have positive thoughts about the Expert Mantle Approach and that it is a creative drama approach that students enjoy in the learning and teaching process.

Based on the research results, the following suggestions can be offered:

- In the research, it was determined that the MoE had positive effects on gaining the value of cooperation skills and responsibility in the Life Science course. Based on this, the MoE can be used both in the Life Science course and in other courses.
- Teachers should be encouraged to use the MoE in their lessons and should be provided with the necessary training.
- The MoE should be given more space in skills and values education in schools.
- In the research, the effect of the MoE on teaching the value of responsibility and cooperation skills was examined. Similar studies could examine the impact of the MoE, especially in teaching skills and values related to communication and self-management.

Limitations of the Study

This study is limited to a 10-week period in which creative drama activities in accordance with the MoE are included in the Life Science course, which has 3 lesson hours per week.

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The authors of the study contributed equally to all processes of the study.

Declaration of Conflict of Interest

As the study authors, we declare that we do not have any declaration of interest/conflict.

Statement of Publication Ethics

All the rules stated in the "Higher Education Institutions Scientific Research and Publication Ethics Directive" were followed in the entire process from the planning, implementation, data collection to the analysis of the data. None of the actions specified under the second section of the Directive, "Scientific Research and Publication Ethics Actions" have been carried out.

During the writing process of this study, scientific, ethical and citation rules were followed; no falsification was made on the collected data and this study was not sent to any other academic media for evaluation.

Before the research, a permission document approved by the Governor's Office and the Provincial Directorate of National Education was obtained so that the application could be carried out in official primary schools (dated 06.12.2018 and numbered 81614018-63). In addition, participation in the research was conducted based on the voluntariness of the students, and the parent permission petition forms were obtained from the parents of the students.

Research ethics committee approval information

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GENİŞLETİLMİŞ ÖZ

Giriş

Akademik açıdan başarılı bireyler yetiştirmenin yanı sıra, eğitim sisteminin temel hedefleri arasında beceri ve değer yönünden donanımlı kişileri topluma kazandırmak da yer almaktadır. Toplumun yararını gözeten bu hedeflerden yola çıkılarak eğitim sistemine kılavuzluk eden öğretim progremlarında kök değerlere ve temel yaşam becerilerine yer verilmiştir. Sözü edilen beceri ve değerlerin başında toplumsal yapının işleyişini ve sistematik düzeni sağlayan iş birliği becerisi ve sorumluluk değeri gelmektedir. İş birliği becerisi, farkında olunan ya da olunmayan durumlarla baş edebilme yeteneği olarak karşımıza çıkmaktadır (Felder & Brent, 2007). Sorulumluluk değeri ise bireylerin ait olduğu gruplara karşı ödevlerini ve görevlerini yerine getirmektir. Bireylerin küçük yaşlardan itibaren toplumsal düzeni anlamalarına yardımcı olan dersleirn başında Hayat Bilgisi dersi gelmektedir. Bu bağlamda Hayat Bilgisi dersinde sorumluluk değeri ve iş birliği becerisinin kazandırılması hem bir gereklilik hem de doğasına uygun bir işleyiştir. Hayat Bilgisi dersinde sorumluluk değeri ve iş birliği becerisinin kazandırılmasında öğrencilerin öğrenme süreçlerine aktif bir şekilde katılabildiği öğretim yöntemleri büyük önem taşımaktadır. Öğrencilerin öğrenme sürecinde kendilerinden birşeyler katarak sürecin içine girebildikleri yöntemlerin başında drama yöntemi gelmektedir. Yaratıcı drama, bir grubu oluşturan üyelerin yaşam deneyimlerinden yola çıkarak, bir amacın, düşüncenin oyunsu süreçler aracılığı ile canlandırılmasıdır. Yaratıcı drama yönteminde, öğrencilerin kendi öğrenmelerinden sorumlu oldukları ve sürece aktif bir şekilde katıldıkları yaklaşımlardan biri de Dorothy Heathcote tarafından geliştirilen Uzman Mantosu Yaklaşımı'dır. Bu yaklaşım ile bireylerin beceri ve değer kazanmaları kolaylaşmaktadır. Bu çalışmada da sorumluluk değeri ve iş birliği becerisinin kazanılmasında bu yaklaşımın etkililiği incelenmiştir.

Yöntem

Araştırma, karma araştırma yaklaşımına uygun olarak yürütülmüştür. Çalışmada nitel ve nicel araştırma yaklaşımları eş zamanlı kullanıldığı için araştırma deseni olarak yakınsayan paralel desen tercih edilmiştir. Araştırmada farklı araştırma yaklaşımlarından yararlanıldığı için örneklem grupları da farklılık göstermiştir. Araştırmanın nicel çalışma grubu ilkokul 3. Sınıfa giden 68 öğrenci, nitel çalışma grubu ise sözü edilen 68 öğrenci arasından seçilen 10 öğrenci tarafından oluşmuştur. Araştırmada veriler araştırmacılar tarafından geliştirilen ölçekler, görüşme ve gözlem formları aracılığı ile toplanmış olup kovaryans analizi ve içerik analizi ile çözümlenmiştir.

Bulgular

Araştırmada birinci araştırma sorusu olarak yer alan deney ve kontrol grubundaki öğrenciler arasında sorumluluk değeri erişileri açısından anlamlı bir fark olup olmadığını incelemek üzere gruplar arası tek faktörlü ANCOVA analizi yapılmıştır. Bu analiz sonucunda deney grubu öğrencilerinin Hayat Bilgisi dersinde yer alan sorumluluk değerini kazanmalarında olumlu yönde etkisi olduğu tespit edilmiştir. Araştırmada ikinci araştırma sorusu olarak yer alan deney ve kontrol grubundaki öğrenciler arasında iş birliği becerisi erişileri açısından anlamlı bir fark olup olmadığını incelemek üzere gruplar arası tek faktörlü ANCOVA analizi yapılmıştır. Bu analiz sonucunda, deney grubu öğrencilerinin Hayat Bilgisi dersinde yer alan iş birliği becerisini kazanmalarında olumlu yönde etkisi olduğu tespit edilmiştir. Araştırmada üçüncü araştırma sorusu olarak yer alan Uzman Mantosu Yaklaşımı'na yönelik hazırlanmış etkinliklerin deney grubundaki öğrencilere katkısı nasıldır sorusuna yanıt bulmak üzere deney ve kontrol grubundan beşer öğrenci gözlemlenmiştir. Bu gözlemler sonucunda deney grubundaki öğrencilerin etkinliklere daha fazla katılım gösterdiği ve sözü edilen beceri ve değeri kalıcı bir şekilde kazanmaya başladığı bulgusuna ulaşılmıştır. Araştırmanın son araştırma sorusu ise deney grubundaki öğrencilerin Uzman Mantosu Yaklaşımı ile ilgili görüşlerini tespit etmektir. Bu

tespit sonucunda, Uzman Mantosu Yaklaşımı'nın birleştirici, bütünleştirici, eğlenceli ve öğretici bir yaklaşım olduğu bulgusuna ulaşılmıştır.

Tartışma ve Sonuç

Çalışmada, Uzman Mantosu Yaklaşımı'nın öğrencilerin iş birliği becerisi ve sorumluluk değerini kazanmalarındaki etkisi araştırılmış ve bu periyotta yaratıcı drama etkinliklerinden yararlanılmıştır. Yaratıcı drama yöntemi sayesinde öğrenciler aktif, esnek ve hem zihinsel hem de fiziksel olarak zinde bir öğrenme sürecine sahiptir. Yaratıcı drama yönteminin bu özelliği çalışmada da kendini göstermiş ve öğrenciler açısından değer eğitiminde eğlenceli ve öğretici bir öğrenme süreci meydana gelmiştir. Bacanlı (2007) da yapmış olduğu çalışmada değer eğitiminde drama kullanmanın öğrenciler açısından eğlenceli ve öğretici olduğuna vurgu yapmış ve sıklıkla kullanılması gerektiğine işaret etmiştir. Değer eğitiminin yanı sıra beceri eğitiminde de drama yönteminden yararlanılmaktadır. Araştırmada, iş birliği becerisi kazandırmada yaratıcı drama yönteminin etkili olduğu sonucu ortaya çıkmıştır. Yaratıcı drama yönteminin özelliği gereği bir arada bulunan ve sürekli etkileşim içinde olan çocuklar, beceri temelli bir yaklaşım içinde yer almaktadır. Bu süreç içinde bulundukları gruplara ve topluluklara uyum güçleri de gelişen çocukların beceri düzeyleri artmaktadır. İlgili alan yazını incelendiğinde, beceri eğitimi ve yaratıcı dramanın birbirinden yararlanması gereken iki alan olduğuna ilişkin çalışmalara rastlamak mümkündür. Örneğin Freeman, Sullivan ve Fulton (2003) beceri eğitimi ile yaratıcı drama yöntemini birbirine bağdaştırmakta ve sıklıkla beceri eğitiminde uygulamaya dayalı bir yöntem olan dramanın kullanılması gerektiğini vurgulamaktadır. Araştırmada aynı zamanda Uzman Mantosu Yaklaşımı'nın öğrenciler tarafından keyifli ve öğretici bir yaklaşım olduğu sonucu ortaya çıkmıştır. Yapılan gözlemler ve görüşmeler sonucunda beceri ve değer eğitiminde sözü edilen yaklaşımın etkili olmasında, hem dinamik süreçlere sahip olması hem de teorik bilgileri çocukların özümsemelerine yardımcı olacak nitelikte olmasının etkili olduğu düşünülmektedir. Bu sayede, hem beceri eğitiminde hem de değer öğretiminde başarının sağlanabileceğini ifade etmek mümkündür.