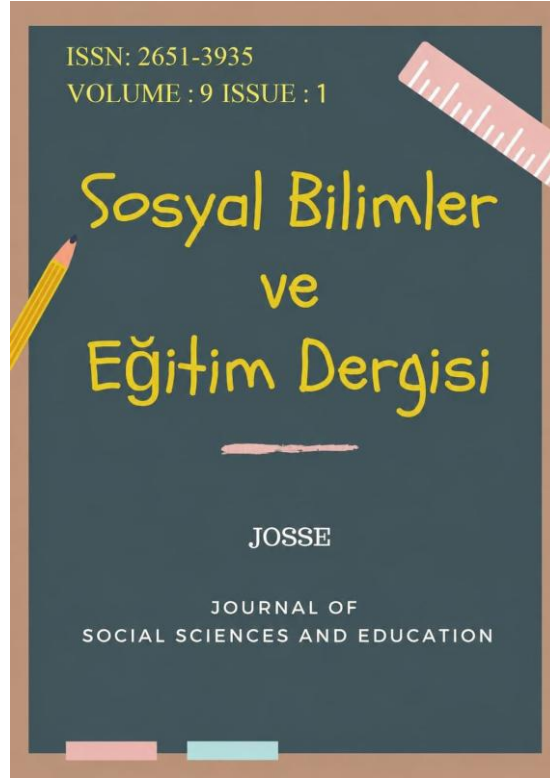


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The Effect of Creative Drama Activities on Preschool Children's Early Literacy and Social Skills*

**This study is derived from the first author's master's thesis under the supervision of the second author.*

Şeyma DUMAN¹

*Ministry of National Education
Teacher*

seymaadumannn@gmail.com

Orcid ID: 0009-0007-8267-1236

İclal GÖKKUŞ²

*Sivas Cumhuriyet University, Faculty of
Education, Department of Primary
Education*

Dr.

dagdevireniclal@gmail.com

Orcid ID: 0000-0002-2721-9892

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The Effect of Creative Drama Activities on Preschool Children's Early Literacy and Social Skills*

Şeyma DUMAN¹

Ministry of National Education

İclal GÖKKUŞ²

Sivas Cumhuriyet University, Faculty of Education

Abstract

This study aimed to examine the effects of creative drama activities on preschool children's early literacy and social skills. A quasi-experimental design with a pretest-posttest control group was employed. The study group consisted of 35 children attending a public preschool affiliated with the Ministry of National Education in the Gemerek district of Sivas. Of these children, 17 were assigned to the experimental group and 18 to the control group. The experimental group participated in an 18-session creative drama program over six weeks, three days a week, with each session lasting approximately 30 minutes. The control group continued with the regular preschool education program during this period. In the data analysis, independent samples t-tests were used to examine pretest equivalence between the groups, paired samples t-tests were used to determine within-group changes, and independent samples t-tests were used to compare posttest and gain scores between the groups. The homogeneity of variances was assessed using Levene's test, and Welch's t-test results were considered when necessary. Cohen's d was calculated to determine the effect size of the intervention. The findings showed that the creative drama program produced significant and strong effects in favor of the experimental group on children's total early literacy and social skills scores. Notable improvements were observed particularly in phonological awareness, print awareness, anger management, verbal expression, coping with peer pressure, and interpersonal skills. However, no significant differences were found in the dimensions of pre-writing skills, goal setting, and accepting consequences. In addition, some initial differences that were against the experimental group decreased by the end of the intervention, indicating that creative drama activities had a balancing effect on developmental differences between the groups in certain skill areas.

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¹ Teacher

seymaadumannn@gmail.com

Orcid ID: 0009-0007-8267-1236

Corresponding author:

² Dr.

dagdevireniclal@gmain.com

Orcid ID: 0000-0002-2721-9892

Introduction

Early childhood is a critical period during which cognitive, language, social, emotional, and physical development occurs at the fastest rate. During this period, the foundational elements of a child's personality take shape while they simultaneously acquire essential knowledge and skills (Başaran, Dursun, Dörtok, & Yılmaz., 2021; Bekir, 2020; Kazu & İş, 2018; Yıldırım & Yılmaz, 2023). The child's experiences and interactions during this period lay the foundation for their future life (Güven & Akeskin, 2016).

Early literacy skills are among the fundamental competencies expected to be acquired during early childhood. Early literacy refers to the set of prerequisite knowledge, skills, and attitudes that children are expected to develop before formal reading and writing (Altun, Erden, & Snow, 2018; Kılınçcı & Bayraktar, 2021; Sulzby & Teale, 1991; Whitehurst & Lonigan, 2001). In the literature, early literacy skills have been conceptualized and classified in various ways (Çakar, 2022; Delican, 2020; Demir, 2021; Dilşad-Ertekin, 2021; Duyan, 2022; Elliott & Oliff, 2008; Erdoğan, 2009; Goswami & Bryant, 2016; Gökkuş, 2016; Karaman, 2013; Kargın et al., 2017; Kısaoğlu, 2022; Tozan, 2023). However, despite this variability, these classifications largely converge on a common framework, which includes phonological awareness, print awareness, letter knowledge, vocabulary, and listening comprehension as the core components of early literacy development (Gengeç et al., 2022).

Research indicates that when children enter primary school without having sufficiently developed early literacy skills, they tend to experience difficulties in the reading and writing process (Goodman, Libenson, & Wade-Woolley, 2010). In contrast, children who acquire these skills during the preschool period demonstrate higher levels of academic achievement (Bingham & Terry, 2013). A substantial body of literature has also shown that early literacy skills have a positive impact on children's reading and writing development (Coyne & Harn, 2006; Gozali-Lee & Dan-Mueller, 2013; Lonigan, Burgess, & Anthony, 2000; Roskos, Christie, & Richgels, 2003; Spira, Bracken, & Fischel, 2005). From this perspective, early literacy skills are considered a fundamental foundation for the development of formal reading and writing abilities (Ergin et al., 2025; Lonigan et al., 2000; Whitehurst & Lonigan, 1998; Wilson & Lonigan, 2009).

The development of early literacy skills is closely associated with the social environment in which the child is embedded and the interactions they experience. Rich experiences provided during early childhood not only support various domains of development

but also contribute significantly to the development of early literacy skills (Farrell et al., 2022; García-Carrión & Villardón-Gallego, 2016; Justice & Pullen, 2003).

The sociocultural approach emphasizes that interactions with peers and adults are crucial to the development of literacy skills (Alothman et al., 2015; Dickinson & Neuman, 2018; Norling & Lillvist, 2016). According to this perspective, literacy is a process that is constructed through social interaction. Children develop an understanding that literacy activities serve specific purposes within their everyday social contexts. In this sense, children's language and literacy behaviors are considered products of social interaction (Chapman, 2006; Giacobazzi et al., 2021; Kulju & Mäkinen, 2019; Schirmer, 2005). According to the language socialization approach, language is acquired within social contexts and simultaneously shapes those contexts. Language learning and enculturation are considered parts of the same process; language is always learned within social and cultural contexts that provide cues about the social and cultural meanings of its forms, and learners are active agents in their own socialization processes (Blum-Kulka, 2008). In other words, while the socialization process provides an appropriate foundation for language acquisition, language itself functions as a tool that enables individuals to produce social actions. From this perspective, how language use is organized is considered a significant factor shaping individuals' socialization processes (Schieffelin & Ochs, 1986). At this point, the relationship between early literacy skills and social skills draws particular attention (Arnold et al., 2012; Cooper et al., 2014; Ziv, 2012). Social skills are defined as verbal and nonverbal behaviors that enable individuals to maintain inner harmony and live in accordance with their environment, initiate and sustain social interactions, and effectively manage and resolve interpersonal problems (Gülay & Akman, 2009; Ogelman et al., 2012). In the study conducted by Avcıoğlu (2007), social skills were categorized into interpersonal skills, skills related to controlling anger and adapting to change, coping with peer pressure, self-control, verbal expression, accepting consequences, listening, goal setting, and task completion. During the preschool period, children's self-regulation mechanisms—such as verbal expression, active listening, and emotion regulation—as well as interactional skills such as turn-taking and cooperation, constitute both the foundational elements of social competence and key academic readiness components that shape early literacy acquisition (Arnold et al., 2012; Ziv, 2012). The literature further confirms that interactive processes, particularly those based on narrative and drama, strengthen children's social understanding and peer relationships while simultaneously contributing directly to their cognitive development and meaning-making processes through language, thereby enhancing early literacy awareness (Nicolopoulou et al., 2015; Ogelman et al., 2012; Uyar et al., 2025). Language experiences enriched through social

interactions support children's vocabulary development, narrative skills, and meaning-making processes; at the same time, these processes contribute to the development of early literacy awareness (Farrell et al., 2022; Nicolopoulou et al., 2015). Supporting these two developmental domains simultaneously and holistically during early childhood is considered critical for both children's academic achievement and their social adjustment (Arnold et al., 2012; Ziv, 2012).

Particularly with the increasing influence of digitalization, the rise in screen-based activities in children's learning experiences has decreased opportunities for face-to-face social interaction (Silva, 2025). One of the primary concerns regarding excessive screen use among children is the reduction of real-life social interactions or their replacement by screen-based interactions (Dore, Logan, Lin, Purtell, & Justice, 2020; Dynia, Dore, Bates, & Justice, 2021). Research indicates that increased screen exposure may negatively affect language development during early childhood (Alroqi et al., 2022; Dynia et al., 2021; Massaroni et al., 2023; Supanitayanon et al., 2020; Tutar & Karaçul, 2024). This negative effect has been reported to be more pronounced, particularly when children use screens independently, without interaction with a parent or another adult (Alroqi et al., 2022; Massaroni et al., 2023; Tutar & Karaçul, 2024). An increase in screen time and the level of engagement with digital media is associated with a significant negative relationship with children's expressive vocabulary size and the quality of linguistic input (Alroqi et al., 2022; Dynia et al., 2021). The literature further confirms that when digital content is combined with a lack of social interaction, it tends to replace reciprocal communication (i.e., responsive interaction) that is critical for language acquisition (Dore et al., 2020; Teresa et al., 2025). In this regard, when the existing findings are considered collectively, it becomes evident that supporting language development, early literacy awareness, and social skills through natural, reciprocal interactions during early childhood is increasingly challenging (Dore et al., 2020; Massaroni et al., 2023). With the increasing influence of digitalization, the decline in face-to-face interactions necessitates addressing these developmental domains holistically and ensuring they remain grounded in their social context. Therefore, there is a growing need for instructional practices that emphasize children's active participation, prioritize face-to-face interaction, and foster the development of language and early literacy skills within a social context (Nicolopoulou et al., 2015; Uyar et al., 2025). In particular, drama- and narrative-based approaches have been shown to simultaneously and meaningfully support both children's social competence and the academic skills critical for school readiness (Arnold et al., 2012; Uyar et al., 2025). In this context, creative drama stands out as an effective instructional method, as it centers on children's active participation and supports experiential learning processes.

In the literature, creative drama is defined as an effective method grounded in John Dewey's principle of learning by doing, allowing participants to freely express their ideas while placing the process itself at the forefront (Kara & Namdar, 2025). This method represents an experiential process in which individuals construct meaning from their own experiences and express these meanings through enactment, using techniques such as role-playing and improvisation (Dönmez et al., 2025). At the center of creative drama is the actively participating child; therefore, this approach is considered a multifaceted instructional method that supports cognitive, affective, and psychomotor development (Akalin & Boz, 2024; Üstündağ, 1996, as cited in Geçici & Azizoğlu, 2022). In early childhood, creative drama supports children's developmental domains through a holistic approach and particularly contributes to language use, social interaction, problem-solving, and literacy skills (Türkmen, 2025; Akalin & Boz, 2024; Nicolopoulou et al., 2015; Uyar et al., 2025).

The literature includes numerous studies demonstrating that creative drama activities have positive effects on early literacy skills (Akdenizli, 2016; Aygün, 2022; Barakat, 2022; Öztürk, 2021) as well as on social skills (Akalin & Boz, 2024; Ceylan, 2009; Değirmenci, 2020; Freeman, Sullivan, & Fulton, 2003; Gültekin, 2014; Güven, 2006; Sevgen, 2016; Uysal, 1996). However, these skills have predominantly been examined separately, and experimental studies addressing their combined development in the preschool context remain limited, particularly in Türkiye (Ceylan et al., 2019). This limitation is critical, as early literacy and social skills are closely interrelated and jointly influence children's academic achievement and social adjustment (Akalin & Boz, 2024; Atabay & Sönmez, 2020). Early literacy skills are not only predictors of reading success but also of broader academic and social development (Gengeç et al., 2022; Kargın et al., 2017). In particular, the strong relationship between social-emotional competence and early literacy performance underscores the need to address these skills through an integrated approach (Atabay & Sönmez, 2020).

In this context, it is important to examine the effects of creative drama activities designed for preschool children on early literacy and social skills through a holistic perspective. Accordingly, the main purpose of this study is to determine the effectiveness of creative drama practices that address early literacy and social skills. In line with this purpose, the following hypotheses were formulated:

H1: There is a statistically significant difference in early literacy skills between preschool children who participate in creative drama activities and those who do not.

H2: There is a statistically significant difference in social skills between preschool children who participate in creative drama activities and those who do not.

Method

Model

In this study, a quasi-experimental design and a quantitative research method were employed to determine the effects of creative drama activities designed to enhance early literacy and social skills among preschool children.

Experimental research typically involves participants assigned to experimental and control groups. When random assignment is not feasible during group formation, a quasi-experimental design is preferred. In such designs, interventions are implemented with participants in the experimental group, and their outcomes are examined by comparing the experimental and control groups (Büyüköztürk et al., 2018).

Participants

The study group was selected using convenience sampling, a nonprobability sampling method. The sample consisted of 35 preschool children ($n_{\text{experimental}} = 17$, $n_{\text{control}} = 18$) enrolled in two classrooms with similar socio-demographic characteristics in a public kindergarten in the Gemerek district of Sivas, Türkiye. One classroom was assigned to the experimental group and the other to the control group through a neutral assignment. Preserving the existing classroom structure was preferred to maintain ecological validity and avoid disrupting the natural flow of the educational process. The demographic characteristics of the participants are presented in Table 1.

Table 1

Demographic Characteristics of the Participants by Group

Variable	Category	Group			
		Experimental (n=17)		Control (n=18)	
		f	%	f	%
Gender	Girl	10	58.8	10	55.6
	Boy	7	41.2	8	44.4
Number of Siblings	None	4	23.5	4	22.2
	One	5	29.4	11	61.1
	Two	6	35.3	2	11.1
	Three	1	5.9	1	5.6
	Four or more	1	5.9	0	0
	Birth Order	First child	7	41.2	10
Second child		4	23.5	6	33.3

	Third child	5	29.4	2	11.1
	Fifth child	1	5.9	0	0
Income Level	Low	2	11.8	0	0
	Middle	10	58.8	11	61.1
	High	5	29.4	7	38.9
Mother's Education	Primary school	4	23.5	2	11.1
	Secondary school	4	23.5	4	22.2
	High school	6	35.3	6	33.3
	University	3	17.6	6	33.3
Father's Education	Primary school	2	11.8	2	11.1
	Secondary school	6	35.3	1	5.6
	High school	6	35.3	8	44.4
	University	3	17.6	7	38.9

Table 1 shows that 58.8% of participants in the experimental group were girls, and 41.2% were boys, whereas in the control group, 55.6% were girls and 44.4% were boys. Regarding the number of siblings, 23.5% of the experimental group had no siblings, 29.4% had one sibling, and 35.3% had two siblings. In the control group, the majority (61.1%) had one sibling, while 22.2% had no siblings. Regarding birth order, 41.2% of the experimental group and 55.6% of the control group were first-born children. Regarding income level, most participants in both groups were from middle-income families (58.8% in the experimental group and 61.1% in the control group), followed by high-income families (29.4% and 38.9%, respectively). Low-income representation was limited and absent in the control group. Regarding parental education, mothers in the experimental group were predominantly high school graduates (35.3%), whereas in the control group, a higher proportion had a university degree (33.3%). Fathers in both groups were mainly high school and university graduates, with a higher proportion of university-educated fathers in the control group (38.9%).

Before the intervention, analyses were conducted to assess normality assumptions and baseline levels across groups. According to the Shapiro–Wilk test results, skewness values ranged from -0.626 to $+0.674$, and kurtosis values ranged from -1.210 to $+1.326$ across all sub-dimensions. As these values fell within the acceptable range of ± 2 , the data were considered normally distributed (George & Mallery, 2010), and parametric tests (independent-samples t-tests) were employed.

As this study used a quasi-experimental design and the groups were formed from intact classrooms, full randomization was not possible. Therefore, pretest measurements were administered to determine the baseline equivalence of the groups before the intervention. The

independent-samples t-test results examining the pre-intervention readiness levels of the experimental and control groups are presented in Table 2.

Table 2

Independent Samples T-Test Results for Pretest Scores of Early Literacy and Social Skill

Measure	Subdimension	Group	n	M	SD	t	df	p	
Early Literacy Skills	Total (ELS)	Experimental	17	42.12	15.66	-2.089	33	.045*	
		Control	18	53.11	15.47				
	Phonological Awareness	Experimental	17	17.65	9.29	-1.786	33	.083	
		Control	18	23.67	10.56				
	Print Awareness	Experimental	17	9.35	3.14	-1.281	33	.209	
		Control	18	10.61	2.66				
	Story Comprehension	Experimental	17	5.24	2.05	-2.852	33	.007*	
		Control	18	7.11	1.84				
	Visual Matching	Experimental	17	4.88	2.60	-1.276	33	.211	
		Control	18	5.89	2.05				
	Pre-writing Skills	Experimental	17	5.00	2.21	-1.311	33	.199	
		Control	18	5.83	1.50				
	Social Skills	Total	Experimental	17	192.53	27.81	-1.468	33	.152
			Control	18	206.11	26.91			
Interpersonal Skills		Experimental	17	49.35	8.42	-0.589	33	.560	
		Control	18	51.00	8.12				
Anger Control & Adaptation		Experimental	17	33.18	4.67	0.092	33	.927	
		Control	18	33.06	3.00				
Coping with Peer Pressure		Experimental	17	29.88	5.64	-0.209	33	.836	
		Control	18	30.33	7.00				
Verbal Expression		Experimental	17	21.53	3.56	-1.537	33	.134	
		Control	18	23.78	4.94				
Self-Control		Experimental	17	11.53	2.50	-0.884	33	.383	
		Control	18	12.22	2.13				
Goal Setting		Experimental	17	9.47	1.62	-1.853	33	.073	
		Control	18	10.67	2.14				
Listening		Experimental	17	16.12	2.29	-2.453	25	.022*	
		Control	18	19.17	4.72				
Task Completion		Experimental	17	9.65	1.37	-2.877	25	.008*	
		Control	18	11.72	2.72				
Accepting Consequences	Experimental	17	11.82	3.09	-2.072	33	.046*		
	Control	18	14.17	3.57					

According to the analysis results (Table 2), the assumption of homogeneity of variances was met for the total early literacy scores ($F = 0.137$, $p = .713$), and a statistically significant difference between the groups was found, $t(33) = -2.089$, $p = .045$. The control group's pretest mean score ($M = 53.11$) was significantly higher than that of the experimental group ($M = 42.12$).

Similarly, for the Story Comprehension subdimension, the homogeneity of variance assumption was satisfied ($F = 0.377$, $p = .543$), and a significant difference was observed in favor of the control group, $t(33) = -2.852$, $p = .007$. In contrast, for the subdimensions of

Phonological Awareness ($F = 0.057, p = .812$), Print Awareness ($F = 0.391, p = .536$), Visual Matching ($F = 2.017, p = .165$), and Pre-writing Skills ($F = 2.315, p = .138$), the assumption of homogeneity of variance was met. No statistically significant differences were found between the groups ($p > .05$). These findings indicate that the groups were comparable in terms of these early literacy subskills before the intervention.

When the social skills dimensions were examined, significant baseline differences were identified in some subdimensions. For Listening skills, the assumption of homogeneity of variances was violated ($F = 13.090, p = .001$), and the control group ($M = 19.17$) scored significantly higher than the experimental group ($M = 16.12$), $t(25) = -2.453, p = .022$. Similarly, in the Task Completion subdimension, the homogeneity assumption was not met ($F = 16.987, p < .001$), and the control group showed a significant advantage, $t(25) = -2.877, p = .008$. For the Accepting Consequences subdimension, although the homogeneity assumption was met ($F = 2.894, p = .098$), a significant difference between groups favored the control group, $t(33) = -2.072, p = .046$. On the other hand, no statistically significant differences were found between the groups in the total Social Skills score ($F = 0.166, p = .686$) or in the subdimensions of Interpersonal Skills ($F = 0.062, p = .805$), Anger Control and Adaptation to Change Skills ($F = 0.381, p = .541$), Coping with Peer Pressure ($F = 0.303, p = .586$), Verbal Expression ($F = 2.113, p = .155$), Self-Control ($F = 0.446, p = .509$), and Goal Setting ($F = 3.668, p = .064$) ($p > .05$). These findings suggest that the groups were comparable in these dimensions before the intervention.

Although preserving intact classroom structures in quasi-experimental designs enhances ecological validity, it may lead to variations in baseline levels, as observed in the present study (Akalin & Boz, 2024). The control group's significantly higher pretest scores than the experimental group were considered an important factor in interpreting the intervention's effects. To ensure that these initial differences did not confound the results, the analyses were not limited to posttest comparisons but also included gain scores (posttest–pretest differences) and effect sizes. Although ANCOVA was initially considered to control for pretest differences, some of its required assumptions were not met; therefore, it was not conducted. Instead, gain scores (posttest–pretest differences) and effect size analyses were used to provide a more robust and valid interpretation of the intervention effects. The findings indicate that the improvement observed in the experimental group cannot be attributed solely to baseline differences and provide evidence that this increase is directly associated with the 14-session creative drama program.

Data Collection Tool

In this study, the Personal Information Form (PIF), the Early Literacy Skills Assessment Tool (ELSAT), and the Social Skills Assessment Scale (SSAS) were used to collect data. The instruments were administered as pretests before the intervention and as posttests after the intervention. The researcher-developed Personal Information Form was used to determine the demographic characteristics of the children in the study group. This form included items related to children's age, gender, number of siblings, parental education levels, and family income status. To assess early literacy skills, the Early Literacy Skills Assessment Tool developed by Karaman-Benli (2013) was employed. The instrument consists of 96 items and five subdimensions: phonological awareness, print awareness, story comprehension, visual matching, and pre-writing skills. The items are scored dichotomously as correct (1) or incorrect (0), and the assessment is administered individually. In the scale development study, the internal consistency coefficients were reported as .91 for phonological awareness, .75 for print awareness, .61 for story comprehension, .71 for visual matching, and .77 for pre-writing skills. In the present study, the reliability coefficients for the subdimensions were .92 for phonological awareness, .64 for print awareness, .66 for story comprehension, .69 for visual matching, and .27 for pre-writing skills. However, the reliability coefficient for the pre-writing skills subdimension was low; therefore, findings for this subdimension should be interpreted with caution.

To assess social skills, the Social Skills Assessment Scale developed by Avcıoğlu (2007) was used. The scale was developed for children aged 4–6 years and consists of 62 items and nine subdimensions: interpersonal skills; anger control and adaptation to change; coping with peer pressure; self-control; verbal expression; accepting consequences; listening; goal setting; and task completion. The items are rated on a five-point Likert scale (1 = never, 5 = always). In the original development study, the overall internal consistency coefficient was reported as .98. In the present study, the coefficient was also calculated as .98.

Collection of Data

The research data were collected using a pretest–posttest design to ensure systematic evaluation of the intervention effects. Before data collection, ethical approval was obtained from the relevant institutional review board, and the Directorate of National Education granted official permission. In addition, informed consent was obtained from the parents of all participating children. Data were obtained from the experimental and control groups after ethical approval and necessary institutional permissions were secured. The Early Literacy Skills

Assessment Tool was administered individually by the researcher in a controlled and distraction-free environment within the school setting. Before administration, rapport was established with each child to enhance engagement and reduce potential assessment-related anxiety. Questions were presented in developmentally appropriate language, and responses were recorded without guidance in accordance with the standardized scoring protocol. The Social Skills Assessment Scale was completed by classroom teachers who had the opportunity to observe the children over an extended period and across various social interaction contexts. To enhance inter-rater reliability and ensure consistency in scoring, teachers received comprehensive training before data collection. The data collection process was conducted simultaneously for both groups under similar physical conditions to ensure internal validity by minimizing potential confounding variables. Pretest measurements were administered 1 week before the 14-session intervention, and posttest measurements were conducted within 1 week after the intervention. This design strengthens causal inference about the intervention's effects.

Experimental Procedure

The study's experimental process consisted of three stages: preparation, implementation, and data collection. Before the implementation phase, the researcher developed an 18-session creative drama intervention program to support preschool children's early literacy and social skills. A preschool teacher, a creative drama specialist, and an early childhood education expert reviewed the prepared sessions. Necessary revisions were made in line with expert feedback to ensure content validity.

To enhance the program's quality, a one-week pilot study was conducted at a different school with a similar socio-economic background. Based on observations from the pilot implementation, technical issues encountered during the process were resolved, and the sessions were finalized.

The study was conducted over eight weeks. During the first week, pretests were administered to both the experimental and control groups. The intervention program was implemented with the experimental group over the following six weeks, and the process was completed with posttest measurements in the final week.

To ensure the proper implementation of the experimental process, meetings were held with the teachers of both groups before the intervention. Alignment was ensured across lesson plans, materials, and instructional units. Throughout the process, observations were conducted to monitor the consistency of practices in both groups with the Turkish Ministry of National Education Preschool Education Program (2013) and to maintain equivalence between groups.

The intervention process in the experimental group began with pretests. In addition to the MEB 2013 Preschool Education Program, the experimental group participated in 18 creative drama sessions over six weeks, with three sessions per week. Each session lasted 30 minutes, and the experimental process was completed with the administration of posttests. The detailed structure of the intervention implemented in the experimental group is presented in Table 3.

In contrast, the control group followed only the routine practices of the MEB 2013 Preschool Education Program after the pretest, and the experimental process was concluded with posttest measurements.

Table 3*Timeline of the Experimental Intervention Applied to the Experimental Group*

Session	Learning Outcome	Activities
1	Matches words that begin with the same sound	Dancing with music, forming shapes, and improvisation activities
2	Produces rhyming words	“It’s an exploding game, musical chairs variation, improvisation, drawing
3	Identifies the initial sound of a word; produces words with the same initial sound	“Voiced–Voiceless” game, musical chairs, paired improvisation, drawing objects with the same sound
4	Identifies remaining syllables by deleting a syllable	“Landlord–Tenant” game, matching halves activity, improvisation, syllable activities
5	Blends sounds to form words	Clapping game, tableau (freeze frame), improvisation, group drawing
6	Identifies uppercase equivalents of lowercase letters	“Grow–Shrink” game, obstacle course, improvisation, drawing-based evaluation
7	Identifies the front/back of a book; locates the title; shows direction of print	Book-based dance, library game, dramatization, book-making
8	Identifies continuation of text; produces letter sounds	Letter race, book game, dramatizing letters’ emotions, writing activities
9	Distinguishes long and short words	Cup game, word-catching game, improvisation, drawing long/short concepts
10	Identifies the title of a story; explains story sequence	Finding and dramatizing the book, dramatization, and playdough activities
11	Matches symbols (letters/numbers); scribbles following writing direction	“Hot–Cold” game, paired musical chairs, improvisation, letter writing
12	Draws according to instructions	“Sleepy Rooster” game, role-play (teacher role), copying from the board
13	Reproduces a model from memory	Tower game, key–lock game, improvisation, memory activities
14	Identifies punctuation marks	Punctuation game, role-play, frozen image activities
15	Expresses oneself clearly; makes calm decisions under pressure	Tangram activities, shape formation, improvisation
16	Responds calmly to negative situations; waits patiently	Laughter game, balloon-carrying game, role-play, creative drawing
17	Copes with peer pressure; manages conflicts	Pirate dance, pirate ship design, role-play, playdough
18	Controls anger; accepts failure calmly	Sack race, form-making with sacks, improvisation

The intervention program implemented in the experimental group consisted of two sequential components. The first 14 sessions focused on early literacy skills, including phonological awareness (5 sessions), print awareness (5 sessions), story comprehension (1 session), visual matching (1 session), and pre-writing skills (2 sessions). In comparison, the final 4 sessions were devoted to social skills. Each session lasted approximately 30 minutes and was conducted by the researcher, with classroom teachers participating as observers. All sessions were structured to include three phases: warm-up, enactment, and evaluation. During the warm-up phase, games such as “It’s Exploding, Musical Chairs, Landlord–Tenant, and Sleepy Rooster” were used to increase children’s attention and prepare them for the target skills. In the enactment phase, creative drama techniques were employed to enable children to embody the sounds or concepts they had learned and to engage in improvisations by taking on roles such as “librarian” or “pirate.” In the evaluation phase, learning was reinforced through question–answer activities, and the sessions were concluded with activities such as drawing, symbolic letter writing, or playdough work.

Analysis

In analyzing the study's data, the extent to which the variables met the assumptions of parametric tests was carefully examined. The analyses were conducted to test the study's hypotheses. In addition to the Shapiro–Wilk test, skewness and kurtosis coefficients were analyzed to determine whether the scores followed a normal distribution. The results indicated that the skewness and kurtosis values for the subdimensions of the Early Literacy Skills and Social Skills Assessment Scales were within the range of ± 2 . In the literature, values within this range are considered to indicate no substantial deviation from normality and are deemed appropriate for parametric analyses (George & Mallery, 2010).

To examine baseline equivalence and pre-intervention readiness levels, independent-samples t-tests were conducted using pretest scores. Paired samples t-tests were employed to determine within-group changes over time (time effect), while independent samples t-tests were used to compare posttest scores and gain scores between groups. The homogeneity of variances was assessed using Levene’s test; when this assumption was violated, Welch’s t-test results were reported. Given the quasi-experimental design, potential baseline differences between groups (e.g., differences in Story Comprehension and total Early Literacy scores favoring the control group) were accounted for. To prevent these differences from confounding the intervention effects, the analyses were not limited to posttest comparisons but also included gain scores and effect sizes. This approach was adopted to determine whether the observed

improvements were directly attributable to the creative drama program, independent of baseline variations. To determine the magnitude of the intervention effects, Cohen's *d* was calculated. The interpretation of effect sizes was based on the criteria proposed by Cohen and extended by Sawilowsky (2009), where 0.20 indicates a small effect, 0.50 a medium effect, 0.80 a large effect, 1.20 a very large effect, and 2.00 an enormous effect. In all statistical analyses, the level of significance was set at $p < .05$.

Ethical Committee Approval

Ethical approval was obtained from the Social and Human Sciences Ethics Committee of Sivas Cumhuriyet University Scientific Research and Publication Ethics Board (Date: 28/10/2022, Approval No: E- 60263016-050.06.04-224073).

Findings

1. Findings on the Effects of Creative Drama Activities on Early Literacy Skills

The results of the paired samples *t*-test conducted to examine within-group changes in the pretest and posttest scores of the experimental and control groups on the total and subdimensions of the Early Literacy Skills Assessment Tool (ELSAT) are presented in Table 4.

Table 4

Within-Group Comparison of Pretest and Posttest Scores by Dimensions for the Experimental and Control Groups

Scale / Subdimension	Group	n	\bar{X}_{Pre}	SD _{Pre}	\bar{X}_{Post}	SD _{Post}	t	p
Toplam	Experimental	17	42.12	15.66	68.35	13.42	-6.196	.000*
	Control	18	53.11	15.47	54.06	13.64	-.652	.523
Phonological Awareness	Experimental	17	17.65	9.29	33.29	10.15	-5.465	.000*
	Control	18	23.67	10.56	23.44	9.87	.199	.845
Print Awareness	Experimental	17	9.35	3.14	12.88	2.57	-4.687	.000*
	Control	18	10.61	2.66	10.50	2.55	.265	.794
Story Comprehension	Experimental	17	5.24	02.05	8.29	1.05	-5.827	.000*
	Control	18	7.11	1.84	7.44	1.50	-1.243	.231
Visual Matching	Experimental	17	4.88	2.60	7.59	1.73	-3.368	.004*
	Control	18	5.89	02.05	6.50	1.79	-1.425	.172

Pre-writing Skills	Experimental	17	5.00	2.21	6.29	1.26	-2.424	.028*
	Control	18	5.83	1.50	6.14	1.34	-1.144	.269

* p<.05

Table, When Table 4 is examined, it is observed that there is a statistically significant difference between the pretest (M = 42.12) and posttest (M = 68.35) mean scores of the children in the experimental group in terms of total Early Literacy Skills, $t(16) = -6.196, p < .05$. Similarly, significant increases were found in the experimental group's posttest scores compared to their pretest scores across all subdimensions, including phonological awareness, print awareness, story comprehension, visual matching, and pre-writing skills ($p < .05$). In contrast, no statistically significant difference was found between the pretest (M = 53.11) and posttest (M = 54.06) mean scores of the control group in total Early Literacy Skills, $t(17) = -0.652, p > .05$. Moreover, the control group did not demonstrate any statistically significant improvement in any of the subdimensions ($p > .05$). These findings indicate that, unlike the control group, the intervention program implemented in the experimental group led to a comprehensive improvement across all subskill domains of early literacy.

The results of the independent samples t-test and effect size (Cohen's d) analyses conducted for gain scores and posttest scores of the experimental and control groups are presented in Table 5.

Table 5

Independent Samples t-Test Results for Gain and Posttest Scores of Early Literacy Skills

Measure	Type	Group	n	\bar{X}	SD	t	df	p	Cohen's d
Total Early Literacy	Gain	Experimental	17	26.24	17.46	5.612	19.8	.000*	1.96
		Control	18	0.94	6.15				
	Posttest	Experimental	17	68.35	13.42	3.124	33	.004*	1.06
		Control	18	54.06	13.64				
Phonological Awareness	Gain	Experimental	17	15.65	11.81	4.965	21.2	.000*	1.75
		Control	18	-0.22	4.75				
	Posttest	Experimental	17	33.29	10.15	2.911	33	.006*	0.98
		Control	18	23.44	9.87				
Print Awareness	Gain	Experimental	17	3.53	3.10	4.024	33	.000*	1.36
		Control	18	-0.11	1.78				
	Posttest	Experimental	17	12.88	2.57	2.752	33	.010*	0.93
		Control	18	10.50	2.55				
Story Comprehension	Gain	Experimental	17	03.06	2.16	4.632	24.3	.000*	1.56
		Control	18	0.33	1.14				

	Posttest	Experimental	17	8.29	01.05	1.929	33	.62	0.66
		Control	18	7.44	1.50				
Visual Matching	Gain	Experimental	17	2.71	3.31	2.311	24.8	.029*	0.78
		Control	18	0.61	1.82				
	Posttest	Experimental	17	7.59	1.73	1.825	33	.77	0.62
		Control	18	6.50	1.79				
Pre-writing Skills	Gain	Experimental	17	1.29	2.20	1.581	33	.123	0.54
		Control	18	0.33	1.24				
	Posttest	Experimental	17	6.29	1.26	289	33	.774	0.09
		Control	18	6.17	1.34				

* $p < .05$

When Table 5 is examined, a statistically significant difference was found between the groups in total early literacy gain scores, favoring the experimental group [$F = 13.25$, $p = .001$; $t(19.8) = 5.61$, $p < .05$, $d = 1.96$]. The calculated effect size ($d = 1.96$) indicates a very large effect according to Sawilowsky's (2009) criteria. A significant difference was also observed in the posttest total scores in favor of the experimental group, with a large effect size [$F = 0.87$, $p = .770$; $t(33) = 3.12$, $p < .05$, $d = 1.06$].

For phonological awareness, a significant difference in gain scores was found in favor of the experimental group [$F = 10.74$, $p = .003$; $t(21.2) = 4.97$, $p < .05$, $d = 1.75$], indicating a very large effect size. This significant difference was maintained in the posttest scores, with a large effect size [$F = 0.27$, $p = .606$; $t(33) = 2.91$, $p < .05$, $d = 0.98$].

Similarly, significant differences were observed in favor of the experimental group in print awareness for both gain scores [$F = 2.51$, $p = .122$; $t(33) = 4.02$, $p < .05$, $d = 1.36$] and posttest scores [$F = 0.20$, $p = .656$; $t(33) = 2.75$, $p < .05$, $d = 0.93$]. The effect size was very large for gain scores and large for posttest scores.

In the story comprehension subdimension, a significant improvement with a very large effect size was observed in the gain scores favoring the experimental group [$F = 4.51$, $p = .041$; $t(24.3) = 4.63$, $p < .05$, $d = 1.56$]. However, no statistically significant difference was observed between the groups in posttest scores [$F = 1.15$, $p = .291$; $t(33) = 0.93$, $p > .05$, $d = 0.66$], although the effect size indicated a moderate effect.

For visual matching, a significant difference in gain scores favored the experimental group, with a medium effect size [$F = 5.12$, $p = .030$; $t(24.8) = 2.31$, $p = .029$, $d = 0.78$]. However, no statistically significant difference was found between the groups in posttest scores [$F = 0.01$, $p = .928$; $t(33) = 1.83$, $p > .05$, $d = 0.62$], although the effect size was medium.

In the pre-writing skills subdimension, no statistically significant differences were found between the groups in either gain scores [$F = 3.84$, $p = .058$; $t(33) = 1.58$, $p > .05$, $d = 0.54$] or

posttest scores [$F = 0.23, p = .638; t(33) = 0.29, p > .05, d = 0.09$]. The effect size was moderate for gain scores and very small for posttest scores.

Overall, the findings indicate that the intervention produced large, significant effects on total early literacy scores, particularly in phonological and print awareness. It also contributed to developmental improvements in story comprehension and visual-matching skills, whereas no significant effect was observed on pre-writing skills. These findings provide strong evidence for the effectiveness of the creative drama intervention in enhancing early literacy skills. Therefore, H1 was supported.

2. Findings on the Effects of Creative Drama Activities on Social Skills

The results of the paired-samples t-test examining within-group changes in the pretest and posttest scores of the Social Skills Assessment Scale (SSAS) are presented in Table 6.

Table 6

Paired Samples t-Test Results for Pretest and Posttest Scores of Social Skills

Measure	Group	n	\bar{X}_{pre}	SD_{pre}	\bar{X}_{post}	SD_{Post}	t	p
SSAS Total	Experimental	17	192.53	27.81	252.53	18.09	-10.001	.000*
	Control	18	206.11	26.91	223.83	22.51	-3.621	.002*
Interpersonal Skills	Experimental	17	49.35	8.42	63.35	5.57	-6.688	.000*
	Control	18	51.00	8.12	53.44	7.62	-1.468	.160
Anger Control& Adaptation	Experimental	17	33.18	4.67	44.82	3.68	-7.936	.000*
	Control	18	33.06	3.00	36.67	2.54	-4.315	.000*
Coping with Peer Pressure	Experimental	17	29.88	5.64	37.47	03.08	-5.886	.000*
	Control	18	30.33	7.00	30.67	06.07	-.242	.812
Verbal Expression	Experimental	17	21.53	3.56	28.88	2.42	-10.110	.000*
	Control	18	23.78	4.94	26.11	4.75	-3.608	.002*
Self-Control	Experimental	17	11.53	2.50	15.82	1.70	-10.496	.000*
	Control	18	12.22	2.13	14.06	2.44	-3.024	.008*
Goal Setting	Experimental	17	9.47	1.62	12.29	1.16	-6.983	.000*
	Control	18	10.67	2.14	12.87	2.16	-4.359	.000*
Listening Skills	Experimental	17	16.12	2.29	20.88	1.83	-7.142	.000*
	Control	18	19.17	4.72	20.72	3.36	-1.649	.118
Task Completion	Experimental	17	9.65	1.37	13.00	1.32	-7.677	.000*
	Control	18	11.72	2.72	12.61	2.38	-1.589	.131
Accepting Consequences	Experimental	17	11.82	03.09	16.00	1.70	-8.858	.000*
	Control	18	14.17	3.57	16.78	1.93	-2.636	.017*

* $p < .05$

When Table 6 is examined, a statistically significant difference was found between the pretest (M = 192.53) and posttest (M = 252.53) mean scores of the children in the experimental group on the Social Skills Assessment Scale (SSAS), $t(16) = -10.001$, $p < .05$.

Similarly, significant increases were observed in the experimental group's posttest scores compared to their pretest scores across all subdimensions, including interpersonal skills, anger control and adaptation, coping with peer pressure, verbal expression, self-control, goal setting, listening, task completion, and accepting consequences ($p < .05$).

In the control group, a statistically significant difference was also found between the pretest (M = 206.11) and posttest (M = 223.83) mean scores in total social skills, $t(17) = -3.621$, $p < .05$. However, when the subdimensions were examined, significant increases were observed only in anger control and adaptation, verbal expression, self-control, goal setting, and accepting consequences ($p < .05$). In contrast, no statistically significant improvements were found in interpersonal skills, coping with peer pressure, listening, and task completion ($p > .05$).

Overall, the findings indicate that although both the experimental and control groups showed increases in total social skills scores, the control group did not demonstrate significant improvement in critical areas such as interpersonal relations, coping with peer pressure, listening, and task completion. This suggests that, unlike the control group, the intervention program implemented in the experimental group led to comprehensive, holistic improvement across all social skill domains. These findings provide strong support for the effectiveness of creative drama-based interventions in enhancing multidimensional social skills in early childhood. While the intervention produced large and significant effects in most social skill domains, no significant differences were observed in goal setting, listening (posttest), task completion (posttest), and accepting consequences, suggesting that these skills may require longer-term or more targeted interventions.

The results of the independent samples t-test and effect size (Cohen's d) analyses conducted for gain scores and posttest scores of the experimental and control groups are presented in Table 7.

Table 7
Independent Samples t-Test Results for Gain and Posttest Scores of Social Skills

Measure	Type	Grup	n	\bar{X}	Sd	t	df	p	Cohen's d
Total Social Skills	Gain	Experimental	17	60.00	24.74	5.485	33	.000*	1.85
		Control	18	17.72	20.77				
	Posttest	Experimental	17	252.53	18.09	4.142	33	.000*	1.33

		Control	18	223.83	22.51				
Interpersonal Skills	Gain	Experimental	17	14.00	8.63	4.341	33	.000*	1.47
		Control	18	2.44	07.06				
	Posttest	Experimental	17	63.35	5.57	4.371	33	.000*	1.41
		Control	18	53.44	7.62				
Anger Control & Adaptation	Gain	Experimental	17	11.65	06.05	4.793	25.5	.000*	1.62
		Control	18	3.61	3.55				
	Posttest	Experimental	17	44.82	3.68	7.668	33	.000*	2.35
		Control	18	36.67	2.54				
Coping with Peer Pressure	Gain	Experimental	17	7.59	5.32	3.834	33	.001*	1.30
		Control	18	0.33	5.85				
	Posttest	Experimental	17	37.47	03.08	4.215	26	.000*	1.28
		Control	18	30.67	06.07				
Verbal Expression	Gain	Experimental	17	7.35	3.00	5.163	33	.000*	1.75
		Control	18	2.33	2.74				
	Posttest	Experimental	17	28.88	2.42	2.192	26	.038*	0.70
		Control	18	26.11	4.75				
Self-Control	Gain	Experimental	17	4.29	1.69	3.336	33	.002*	1.13
		Control	18	1.83	2.57				
	Posttest	Experimental	17	15.82	1.70	2.473	26	.019*	0.78
		Control	18	14.06	2.44				
Goal Setting	Gain	Experimental	17	2.82	1.67	1.118	33	272	0.38
		Control	18	2.11	02.05				
	Posttest	Experimental	17	12.29	1.16	833	26	413	-0.25
		Control	18	12.78	2.16				
Listening Skills	Gain	Experimental	17	4.76	2.75	2.766	33	.010*	0.94
		Control	18	1.56	4.00				
	Posttest	Experimental	17	20.88	1.83	176	27	861	0.05
		Control	18	20.72	3.36				
Task Completion	Gain	Experimental	17	3.35	1.80	3.447	33	.002*	1.17
		Control	18	0.89	2.37				
	Posttest	Experimental	17	13.00	1.32	602	27	552	0.18
		Control	18	12.61	2.38				
Accepting Consequences	Gain	Experimental	17	4.18	1.94	1.455	23.9	159	0.49
		Control	18	2.61	4.20				
	Posttest	Experimental	17	16.00	1.70	-1.265	33	215	-0.42
		Control	18	16.78	1.93				

* p<.05

When Table 7 is examined, a statistically significant difference in favor of the experimental group was found for total social skills gain scores, with a very large effect size [$F = 0.81, p = .374; t(33) = 5.49, p < .05, d = 1.85$]. A significant difference was also observed in the posttest total scores, with a very large effect size [$F = 1.20, p = .282; t(33) = 4.14, p < .05, d = 1.33$].

In the interpersonal skills dimension, significant differences in favor of the experimental group were found in both gain scores [$F = 0.92, p = .346; t(33) = 4.34, p < .05, d = 1.47$] and posttest scores [$F = 2.03, p = .163; t(33) = 4.37, p < .05, d = 1.41$], with very large effect sizes.

For anger control and adaptation (KDKEDYS), a significant difference with a very large effect size was found in gain scores [$F = 4.25, p = .047; t(25.5) = 4.79, p < .05, d = 1.62$]. In posttest scores, a significant difference was also observed, with an extraordinary (huge) effect size according to Sawilowsky (2009) [$F = 1.15, p = .291; t(33) = 7.67, p < .05, d = 2.35$].

For coping with peer pressure, significant differences in favor of the experimental group were found in both gain scores [$F = 0.19, p = .668; t(33) = 3.83, p = .001, d = 1.30$] and posttest scores [$F = 10.41, p = .003; t(26) = 4.22, p < .05, d = 1.28$], with very large effect sizes.

In verbal expression, a significant difference with a very large effect size was found in gain scores [$F = 0.10, p = .749; t(33) = 5.16, p < .05, d = 1.75$]. The posttest scores also showed a significant difference; however, the effect size was moderate [$F = 7.03, p = .012; t(26) = 2.19, p < .05, d = 0.70$].

For self-control, significant differences were found in both gain scores [$F = 3.13, p = .086; t(33) = 3.34, p < .05, d = 1.13$] and posttest scores [$F = 1.32, p = .260; t(26) = 2.47, p < .05, d = 0.78$]. The effect size was large for gain scores and moderate for posttest scores.

In listening skills, a significant difference with a large effect size was found in gain scores [$F = 1.98, p = .168; t(33) = 2.77, p < .05, d = 0.94$], whereas no significant difference was observed in posttest scores [$F = 9.09, p = .005; t(27) = 0.18, p > .05, d = 0.05$].

For task completion, a significant difference with a very large effect size was found in gain scores [$F = 1.56, p = .221; t(33) = 3.45, p < .05, d = 1.17$], while no significant difference was observed in posttest scores [$F = 4.63, p = .039; t(27) = 0.60, p > .05, d = 0.18$].

In the goal-setting dimension, no statistically significant differences were found in either gain scores [$F = 1.45, p = .237; t(33) = 1.12, p = .272, d = 0.38$] or posttest scores [$F = 10.14, p = .003; t(26) = 0.83, p = .413, d = -0.25$].

Similarly, no statistically significant differences were observed in the accepting consequences dimension in either gain scores [$F = 11.34, p = .002; t(23.9) = 1.46, p > .05, d = 0.49$] or posttest scores [$F = 1.83, p = .185; t(33) = -1.27, p > .05, d = -0.42$].

Overall, the findings indicate that the intervention program produced statistically significant and very large—occasionally even extraordinary—effects on total social skills, particularly in interpersonal skills, anger control, adaptation, and coping with peer pressure. The program also contributed substantially to improvements in verbal expression and self-regulation (self-control). Although developmental gains were observed in listening and task-

completion skills (gain scores), these improvements did not translate into statistically significant differences at the posttest. In contrast, no significant effects were found for more complex social skills requiring higher levels of cognitive maturity and experiential learning, such as goal setting and accepting consequences. These findings highlight that while creative drama is highly effective in enhancing interactional and self-regulatory social skills, more cognitively demanding skills may require longer-term or more targeted interventions. Therefore, H2 was supported.

Result and Discussion

The study's findings indicate that the 18-session creative drama program had a very large effect ($d > 1.20$) on preschool children's early literacy skills. The findings of this study support Hypothesis 1. As a result of the intervention, a statistically significant advantage was observed in the experimental group compared to the control group, particularly in Phonological Awareness, Print Awareness, and Total Early Literacy scores. Moreover, the experimental group, which initially performed worse, closed the gap with the control group in Story Comprehension and Visual Matching, resulting in an "equalizer effect." This finding suggests that creative drama not only enhances overall achievement but also has the potential to reduce learning disparities and promote educational equity, particularly for children with lower initial performance levels. In contrast, no statistically significant difference was found in the Pre-Writing Skills dimension in terms of both gain scores and post-test results. The substantial increase in total early literacy scores is consistent with meta-analytic evidence demonstrating that creative drama contributes to academic achievement and the development of foundational language skills (Geçici & Azizoğlu, 2022; Ulubey & Toraman, 2015). Similarly, Aygün (2022) demonstrated that the creative drama method significantly enhances early literacy skills in children aged 5–6.

Phonological awareness is defined as the ability to recognize that spoken language can be segmented into smaller units and to manipulate these sound structures (Gökkuş, 2016). In the present study, a very large increase ($d = 1.75$) was observed in the experimental group's phonological awareness gain scores compared to the control group. This finding is consistent with the literature, which suggests that creative drama facilitates the development of sound–letter correspondence and enhances engagement with phonological elements (Aygün, 2022; Öztürk, 2021; Tübele & Laganovska, 2013). The magnitude of this effect can be explained by the direct contribution of activities implemented in the early sessions of the program, such as

initial sound recognition, rhyme awareness, syllabification, and sound blending, to children's phonological awareness development. Additionally, children's use of their bodies to represent sounds and their engagement in dramatization activities such as "freeze-frame" (photo pose) techniques enabled the concretization of abstract phonological units, thereby facilitating learning.

Print awareness, another fundamental component of early literacy, is defined as the ability to understand the structure, conventions, and functions of written language (Akyol et al., 2022; Aygün, 2022). In the present study, a very large effect ($d = 1.36$) was found in favor of the experimental group in print awareness gain scores. This finding is consistent with the literature, which indicates that print-rich learning environments and interaction-based practices accelerate children's conceptual development in written language (Tezcan, 2023; Işıtan ve Akoğlu, 2016). Environments enriched with written materials and experiences emphasizing the functions of print support children in perceiving written language not merely as a set of symbols, but as a meaningful communication tool. The magnitude of this effect can be explained particularly by the creative drama activities implemented between the sixth and ninth sessions of the program. Awareness activities on letter forms, book conventions, and word structure during these sessions deepened children's conceptual understanding of written language. Furthermore, children's engagement in role-taking as "authors," such as writing letters and participating in library dramatizations, transformed writing from a mechanical task into a functional and meaningful communicative practice. In this process, creative drama supports children's symbolic representation skills (Güven, 2006; Türkmen, 2025) and facilitates the connection between written symbols and meaning. Additionally, it has been reported that "pretend writing" activities conducted in dramatic contexts contribute to the development of children's print awareness (Aygün, 2022; Nicolopoulou et al., 2015; Tezcan, 2023).

Visual matching, an important component of early literacy, plays a fundamental role in children's ability to recognize and interpret written symbols (Karaman, 2013). In the present study, findings on visual matching revealed a moderate effect size ($d = 0.78$) in favor of the experimental group on gain scores. However, the absence of a statistically significant difference between groups in post-test scores is noteworthy. It was determined that the experimental group, which initially had lower scores than the control group, closed this gap and reached a comparable level by the end of the intervention. This finding suggests that creative drama not only supports skill development but also has the potential to reduce learning disparities by accelerating the progress of children with lower initial performance levels. This result is

consistent with the existing literature. Tezcan (2023) reported that a music- and creative drama-based program had a moderate, significant effect on the visual-matching skills of children aged 4–5 living in disadvantaged areas. Visual matching is closely related to visual perception and visual memory processes (Karaman, 2013). Visual perception refers to the ability to detect, recognize, discriminate, and interpret visual stimuli by associating them with prior experiences (Cornelia-Friesen, 1969). Within this framework, creative drama activities enable children to engage with visual stimuli not passively, but through movement, role-playing, and dramatization. This allows children to compare, recall, and match visual inputs within a meaningful context. In this respect, drama activities support the development of visual perception and memory, thereby contributing to visual matching skills (Tezcan, 2023). The activities implemented in this study were structured to support this skill. Particularly during sessions conducted between the eleventh and thirteenth weeks, children were asked to match given visuals to letters and numbers, produce drawings based on instructions, engage in free writing aligned with print directionality, and create memory-based drawings by observing models. Activities such as the “hot–cold” game, paired musical chairs, “sleepy rooster,” tower, and key-lock games, combined with improvisation and role-playing, supported children in carefully examining, comparing, and mentally reconstructing visual stimuli. Additionally, activities such as taking on the role of a teacher, writing letters, and imitating examples on the board enabled children not only to perceive visual stimuli but also to interpret and reproduce them. In particular, memory-based drawing activities and matching games promoted active use of visual memory, thereby contributing to the development of visual-matching skills.

Listening comprehension, an essential component of early literacy, is a complex cognitive skill that involves interpreting auditory input and understanding words and sentences in spoken texts (Türe Köse, 2025). As a prerequisite for reading comprehension, this skill forms the foundation of early language development. In the present study, findings related to listening comprehension revealed a very large effect size ($d = 1.56$) in favor of the experimental group in gain scores. However, the absence of a statistically significant difference between groups in post-test scores is noteworthy. It was determined that the experimental group, which initially had lower scores than the control group, closed this gap and reached a comparable level by the end of the intervention. These findings are consistent with the literature. Tezcan (2023) reported that music- and creative drama-based programs have a large effect on children's listening comprehension skills in disadvantaged areas. Similarly, Aygün (2022) found that creative drama significantly improves this skill, while Özkan (2018) demonstrated that it is more effective than traditional methods in enhancing reading comprehension and increasing

academic achievement. Creative drama, through its structure based on role-playing, improvisation, and group interaction, enables children to actively engage with texts, thereby supporting cognitive processes and fostering critical thinking skills (Dinner, 2025). In this process, children are not merely passive listeners but become active participants in the narrative. In the literature, Susar KIRMIZI (2007) emphasizes that drama strengthens comprehension by allowing children to explore characters' emotions and internalize narrative structures. In the present study, story dramatizations, particularly in the tenth session, facilitated children's ability to organize events mentally. Drama-based read-aloud and enactment activities (story-acting) help children adopt character perspectives and better understand narrative structures (Nicolopoulou et al., 2015; Uyar et al., 2025). Additionally, post-dramatization activities such as drawing and modeling with play dough transform mental imagery into tangible products, thereby strengthening children's connection with the narrative world (Pitri & Michaelidou, 2025; Türkmen, 2025).

Pre-writing skills constitute an integral component of early literacy. Writing is a skill that involves both perceptual and psychomotor processes at a high level (Toker, 2006, as cited in Gökkuş, 2016). In the preschool period, the development of fine motor skills, hand-eye coordination, and the ability to use writing tools appropriately are essential prerequisites for children to be ready for writing (Eliason & Jenkins, 2003; as cited in Karaman, 2013). In the present study, findings related to pre-writing skills revealed no statistically significant difference in either gain scores or post-test scores ($p > .05$). This result can be explained by the nature of pre-writing skills, which are more closely associated with physical competencies such as fine motor development and hand-eye coordination. The drawing activities and punctuation awareness tasks implemented in the twelfth, thirteenth, and fourteenth sessions enabled children to explore the conventions of written language. However, the absence of a significant difference in pre-writing motor skills appears to be related to the method's primary focus. Creative drama provides a process-oriented environment in which children are free from the fear of making mistakes (Kara & Namdar, 2025). Within this context, children tend to focus on the purpose and function of writing (conceptual preparation) rather than on technical (graphomotor) skills, such as proper pencil grip or the production of precise lines (Rızaoğlu, 2016). The literature indicates that while drama is highly effective in fostering cognitive and social readiness, its impact may be limited in domains requiring technical manual skills (Geçici & Azizoglu, 2022; Türkmen, 2025). Although engaging with the "form" of punctuation marks in these sessions contributed to children's awareness of the structural aspects of written language, this type of physical engagement does not translate directly into motor training (Akyol et al., 2022; Güven,

2006). Overall, the findings suggest that creative drama is more effective in supporting cognitive processes, such as understanding the function and symbolic representation of writing, rather than in developing technical skills, such as hand–eye coordination.

Following the findings on early literacy, the effects of creative drama on children’s social development are similarly noteworthy. The results indicate that the 18-session creative drama intervention program had a very large effect ($d = 1.85$) on preschool children's social skills. The findings of this study support Hypothesis 2. As a result of the program, a statistically significant advantage was observed in the experimental group compared to the control group, particularly in Anger Management ($d = 2.35$), Verbal Expression ($d = 1.75$), and Coping with Peer Pressure ($d = 1.62$). These gains were followed by significant increases in Interpersonal Skills ($d = 1.47$), Task Completion ($d = 1.17$), Self-Control ($d = 1.13$), and Listening ($d = 0.94$). In addition, the program produced an “equalizer effect,” as the experimental group—initially disadvantaged—demonstrated marked improvements in listening and task-completion skills, thereby closing the gap with the control group. In contrast, no statistically significant differences were found in either gain scores or post-test results for the Goal Setting ($d = 0.38$) and Acceptance of Consequences ($d = 0.49$) dimensions.

The substantial increase observed in total social skills scores is consistent with findings in the literature demonstrating the effectiveness of creative drama in promoting social skill development (Akalın & Boz, 2024; Aslan, 2008; Aydoğdu & Ulaş, 2017; Başdaş & Vural, 2017; Ceylan et al., 2019; Kıvanç-Öztuğ & Çiner, 2018; Nicolopoulou et al., 2015; Lindberg, 2015; Pekdoğan, 2016; Sevgen, 2016). Similarly, Gültekin (2014) reported that creative drama practices support children’s social and emotional development. In addition, Yıldırım and Çetin (2022) found that a creative drama-based life skills education program led to significant improvements in a range of multidimensional life skills among children aged 5–6, including empathy, problem-solving, communication, interpersonal relationships, and coping with emotions. These findings suggest that creative drama supports not only social skills but also broader life skills that are closely related to social competence.

The ability to control anger-related behaviors refers to an individual’s capacity to regulate anger-directed actions toward both oneself and others within social contexts and to adapt to emerging situations; similarly, self-control encompasses the ability to manage one’s behavior in a manner appropriate to the social context and to maintain behavioral regulation (Avcıoğlu, 2007). As components of self-regulation and emotional control, these skills play a fundamental role in ensuring social adjustment and sustaining peer relationships, particularly during the preschool period (Bengi, 2024; İşler, 2025; Kılıç, 2025). In the present study, very

large and large effect sizes were obtained in favor of the experimental group for Anger Control ($d = 2.35$) and Self-Control ($d = 1.13$). These findings indicate that creative drama activities exert a strong effect on children's ability to regulate and manage their emotional responses. This effect can be explained by the opportunities that drama provides for children to recognize their emotions, express them appropriately, and manage conflicts (İşler, 2025; Kıvanç-Öztuğ & Çiner, 2018). The literature emphasizes that drama activities are highly effective in promoting anger management, reducing aggressive behaviors, and fostering emotional regulation skills (Akalin & Boz, 2024; Bayrak, 2020; İşler, 2025; Kıvanç-Öztuğ & Çiner, 2018; Yılmaz, 2019). The creative drama process enables children to release negative emotions in a fictional context and experience their consequences in a safe environment, thereby strengthening self-regulation mechanisms (Akalin & Boz, 2024; Bayrak, 2020; Güven, 2006; Uyar et al., 2025; Yılmaz, 2019). Consistent with these findings, Başdaş and Vural (2017) reported that creative drama practices significantly improved children's anger control and adaptability to change, while Kıvanç-Öztuğ and Çiner (2018) found that such interventions were effective in enhancing self-control skills. An examination of the intervention sessions revealed that the activities implemented, particularly in the final four sessions (Sessions 15–18), had a pronounced impact on these skills. During these sessions, children were encouraged to express themselves, remain calm under pressure, wait their turn, and respond appropriately to challenging situations. Activities such as sack races, balloon games, and competitive tasks exposed children to experiences of losing, waiting, and frustration. At the same time, children were able to experience intense emotions such as anger and disappointment within a “pretend” framework in a safe environment, thereby gaining opportunities to regulate these emotions. One of the most powerful aspects of creative drama in activating social skills lies in its capacity to allow the simultaneous construction of two realities in the mind. Through “as-if” experiences, children can observe their real selves in unreal situations (Güven, 2006). The evaluation phase constitutes a stage in which participants reflect on their experiences and emotions throughout the process (Akalin & Boz, 2024). In this phase, children were encouraged to reflect on their emotional experiences, thereby fostering their emotional awareness.

Verbal expression refers to a child's ability to articulate thoughts and emotions verbally, initiate and sustain social interaction; coping with peer pressure involves resisting negative influences from peers in social contexts; and interpersonal skills encompass the ability to establish and maintain interactions with others (Avcıoğlu, 2007). As a group-based activity, drama inherently incorporates socialization processes (Türkmen, 2025). In the present study, significant and high effect sizes were observed in favor of the experimental group in Verbal

Expression ($d = 1.75$), Coping with Peer Pressure ($d = 1.62$), and Interpersonal Skills ($d = 1.47$). The improvements in verbal expression and interpersonal skills can be attributed to drama's nature as a method grounded in language and communication processes (Yazar, Çelik & Kök, 2007; Devrim Şan, 2024; İşler, 2025; Türkmen, 2025; Yılmaz, 2019). Role-playing and improvisation techniques enhance children's expressive abilities, facilitate their understanding of others' perspectives (empathy), and enable them to initiate effective social interactions (Akalin & Boz, 2024; Bayrak, 2020; Devrim Şan, 2024; İşler, 2025; Türkmen, 2025). The increase observed in coping with peer pressure is supported by studies indicating that drama activities enhance children's self-confidence, strengthen their social autonomy, and provide opportunities to "rehearse" decision-making within group contexts (Akalin & Boz, 2024; Altok, 2021; Bayrak, 2020; Yazar, Çelik & Kök, 2007; Felek, 2023; Kıvanç-Öztuğ & Çiner, 2018; İşler, 2025). The findings are consistent with the literature demonstrating the effectiveness of creative drama in the development of social skills. Kamaraj (2004) reported that creative drama is effective in fostering assertiveness and social skills; Başdaş (2017) found significant improvements in coping with peer pressure and verbal expression; and Kıvanç-Öztuğ and Çiner (2018) indicated that interpersonal skills and coping with peer pressure improved as a result of drama-based interventions. Additionally, Yıldırım and Çetin (2022) demonstrated that creative drama-based practices reduce peer-related problems and support social adjustment. These outcomes can be explained by creative drama's capacity to enable children to experience social situations and express themselves through role-playing and improvisation (Akalin & Boz, 2024; Güven, 2006; Nicolopoulou et al., 2015). An examination of the intervention sessions revealed that activities implemented particularly in the fifteenth and seventeenth sessions had a pronounced impact on these skills. In the fifteenth session, tangram activities and improvisations based on problem situations helped children express themselves and generate alternative solutions. In the seventeenth session, pirate-themed group activities and improvisations enhanced children's ability to interact with peers, manage conflicts, and develop social problem-solving skills. Through these processes, children learned by directly experiencing social situations and gained opportunities to understand different perspectives through role-taking and enactment.

Listening refers to a child's ability to attend carefully to others and respond appropriately, whereas task completion involves the ability to sustain and finalize initiated tasks (Avcıoğlu, 2007). These skills constitute a critical foundation for children's effective participation in both social and academic contexts (Akalin & Boz, 2024; Ceylan et al., 2019; Kıvanç-Öztuğ & Çiner, 2018). In the present study, significant effect sizes were observed in

favor of the experimental group for Task Completion ($d = 1.17$) and Listening ($d = 0.94$), alongside evidence of an equalizer effect. These findings suggest that creative drama activities contribute to the development of children's attention, sense of responsibility, and task-oriented behavior. This result is consistent with Başdaş (2017), who reported that a creative drama-based digital storytelling program improved children's listening and task-completion skills. Furthermore, the observed "equalizer effect" can be attributed to the democratic, non-judgmental nature of creative drama, which allows each child to participate at their own pace (Akalin & Boz, 2024; Altok, 2021; Kıvanç-Öztuğ & Çiner, 2018). In particular, drama provides a safe environment for children who are socioeconomically disadvantaged or initially more socially withdrawn, encouraging them to close the gap with their peers (Bayrak, 2020; Ceylan et al., 2019; Kıvanç-Öztuğ & Çiner, 2018). The findings also indicate that not only the sessions explicitly focused on social skills, but also the structured activities implemented in earlier sessions contributed to the development of these skills. Through games, children were encouraged to follow instructions, wait their turn, and adhere to rules; during dramatization phases, completing assigned roles and engaging in activities within a structured sequence supported the development of task awareness. In this process, children enhanced not only their listening and instruction-following abilities but also their capacity to sustain attention and complete initiated tasks.

Goal setting refers to a child's ability to establish specific objectives independently of others and to plan and execute behaviors in line with these objectives; acceptance of consequences, on the other hand, involves recognizing, evaluating, and taking responsibility for the outcomes of one's actions (Avcıoğlu, 2007). In the present study, no statistically significant differences were found in goal setting or in the acceptance of consequences. This result can be explained by the nature of these skills, which require higher-order cognitive processes that are still developing during the preschool period (Felek, 2023; Kılıç, 2025). Consistent with this finding, Kıvanç-Öztuğ and Çiner (2018) reported that creative drama sessions were not effective in improving these skills, while Başdaş (2017) found no significant difference in children's acceptance of consequences following a creative drama-based digital storytelling program. The literature further suggests that dramatic activities do not always produce immediate effects on dimensions such as accepting failure, long-term goal setting, and self-regulation, and that developing these skills may require longer-term interventions (Akalin & Boz, 2024, 2021; Şimşek, 2023).

In conclusion, creative drama, with its child-centered and experiential learning-based structure (Altok, 2022; Akalin & Boz, 2024; Geçici & Azizoğlu, 2022; San, 1990; Yılmaz,

2019), functions as an approach that facilitates the holistic internalization and behavioral transformation of skills (Akalin & Boz, 2024) and is an effective method for supporting both early literacy and social skill development in the preschool period.

Recommendations

Based on the findings of this study, several recommendations are proposed for both practice and future research. Given the strong effects of creative drama on early literacy skills, particularly phonological and print awareness, these activities should be systematically and deliberately integrated into early childhood education curricula. Given its substantial impact on social skills—especially emotional regulation, verbal expression, and peer interaction—creative drama activities should be more widely incorporated into preschool instructional practices, and, in this regard, in-service training programs aimed at enhancing teachers' knowledge and competencies in creative drama should be expanded. Due to its limited effects on pre-writing skills and higher-order abilities such as goal setting, creative drama should be implemented in conjunction with complementary instructional approaches. Furthermore, given the “equalizer effect” identified in the findings, creative drama interventions should be prioritized for children with lower initial performance levels, disadvantaged backgrounds, or developmental risks, as this approach may help reduce early learning disparities. Finally, future research should examine the long-term effects of creative drama interventions through longitudinal designs, involve larger, more diverse samples, and investigate their effectiveness relative to other instructional approaches.

Ethical Committee Approval

Ethical approval was obtained from the Social and Human Sciences Ethics Committee of Sivas Cumhuriyet University Scientific Research and Publication Ethics Board (Date: 28/10/2022, Approval No: E- 60263016-050.06.04-224073).

*Use of Artificial Intelligence: Artificial intelligence tools, including DeepL Translator, Grammarly, and ChatGPT 5.0, were used to support the English translation, language editing, and proofreading processes.

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