

Examining the Effectiveness of the "Storigami in Child Development" Course

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Abstract

This study is a qualitative research examining the perspectives of undergraduate students who are majoring at Child Development enrolled in the course "Storigami in Child Development." at a university. To analyze changes in students' perceptions of the Storigami technique, open-ended questions were asked at the beginning and end of the semester. Additionally, their opinions on the course were assessed through reflective writings throughout the semester. This study represents the second phase of a curriculum development initiative designed to integrate the highly effective Storigami technique into Child Development programs as a course. In this regard, it aims to investigate the effectiveness of the implemented curriculum. The results indicate a positive improvement in students' perceptions throughout the course. They reported improvements in their storytelling, creativity, and paper-folding skills. Additionally, their knowledge became more informed and extended thanks to the course content. Beyond its contribution to the literature, this study provides various recommendations for Child Development students, preschool teachers, and teacher candidates.

Keywords: Storigami, Child Development, Curriculum Design

INTRODUCTION

Since childhood is one of the most important times in a person's life, education in the field of child development is based on an understanding of the cognitive, physical, social, and emotional changes that take place during this time and adapting instructional strategies accordingly (Akkaya & Karakuyu, 2023). What kids experience during this time set the groundwork for many of the core abilities and dispositions they will use throughout their lives. Thus, it is crucial that professionals who will work closely with children have the knowledge and abilities that they need.

Following graduation, students with undergraduate and graduate degrees in child development can pursue careers in a variety of fields. Educational institutions are among these domains. Undergraduate and associate degree students studying child development, particularly those employed as teachers or assistant teachers in private educational institutions offering preschool instruction, should be aware of different group dynamics, individual differences, and coping mechanisms (Akkaya & Karakuyu, 2023).

In their undergraduate education, students who are major at Child Development have to take courses based on both theory and practice. Theoretical courses are mostly regarding the cognitive, psychological and physiological development of children, whereas practice-oriented courses aim at teaching undergraduate students different techniques and strategies to help children develop appropriately. Due to the fact that, especially early childhood period is very significant because of being a time when children start to recognize, comprehend, and connect with the world, the variety and quality of undergraduate studies in this specific field are very important. Since early childhood process starts with crying and continues as the child learns about the people and things in their environment, opportunities especially provided by professionals are very valuable while children develop (Tanju Aslışen, 2021).

As a result of this significant position of graduates of Child Development departments, students are suggested to be equipped with different techniques, strategies and methods. Tanju Aslışen (2021) suggests that stories are one of the activities that can be used to give children special learning experiences while also supporting their development. Mol et al. (2009) determined that "an interactive exposure to storybooks can be considered as an effective stimulant for the development of two pillars of learning to read: oral language and print knowledge." As Golub and Reid (1989) put it, "learning is not so much

individual production of acquired knowledge as it is social construction of new knowledge." An interactive setting that actively promotes learning from one another supports this type of social formation. As one of the recent techniques and an uncommon teaching method that is described as a narrative-creation exercise is origami storytelling. Mastin (2007) created the term "storigami" to refer to the practice of narrating stories using origami and asserted that it has many educational advantages, such as enhancing memory, enhancing fine motor coordination, improving left and right brain concordance, and encouraging creativity. The applicability and the benefits of this technique have been researched in the field recently (Tanju Aslışen, 2021; Petrell Kallevig, 2009; Oğuz, 2016; Tanju Aslışen & Sönmez, 2023; Tanju Aslışen & Bafralı, 2025). The common points highlighted by all these studies are about the positive effects of the storigami method on language skills, social, sensory, psychomotor skills, cognitive development, teaching processes, and learning motivation of students. Additionally, it has been stated that actively participating in origami storytelling exercises helps students improve their critical thinking and problem-solving abilities, which in turn helps them learn basic life skills like how to dress, find food, communicate needs, and respond appropriately when someone asks for something.

Taking all these benefits into consideration, therefore, the researchers designed an undergraduate course called "Storigami in Childhood Development" (Tanju Aslışen & Bafralı, 2025) which was offered as an optional course for one semester in a Child Development Department of a State University. The aim of this study is to explore the perspectives of undergraduate students who are majoring at Child Development enrolled in the course "Storigami in Child Development" at a university. For this specific purposes following research questions were addressed: 1). What were the perceptions of undergraduate students majoring at Child Development about the "Storigami in Child Development" course in the beginning of the semester?; 2) What were the perceptions of undergraduate students majoring at Child Development about the "Storigami in Child Development" course in the end of the semester?.

METHODS

Research Design

The study used a qualitative descriptive approach to explore undergraduate Child Development students' perceptions about the Storigami in Child Development course. According to Creswell (2014), such a method allows for an advanced level of understanding of the participants' points of view and the context in which the innovative techniques were applied. The research was conducted as the follow up study of the research by Tanju Aslışen and Bafralı (2025) in which they designed the curriculum for this specific course.

Setting and Participants

The study was conducted in a Child Development department of a state university. In 1968, this university opened the country's first undergraduate department dedicated to child development within the Faculty of Health Science (Doğan-Keskin and Bayhan, 2020). At the time of the study there were 440 (F=421, M=19) registered students in the department. The students need to complete 240 ECTS (60 from optional, 180 from compulsory courses) for graduation. Storigami in Child Development course has been offered as an optional course.

The study was conducted in the fall semester of 2024-25 academic year. Ten female students who were between the ages of 21-24, enrolled to the course and they all participated in the study voluntarily.

Data Collection and Analysis

Data for the study were gathered through pre/post open-ended questions which were administered both at the beginning and end of the semester. The participants were asked to give written response. The questions asked were as follows; (a) What are your expectations from this lesson? Explain., (b) What is the importance of storytelling in child development?, (c) What skills does storytelling develop in children?, (d) Can you explain the relationship between storytelling and creativity in terms of child development?, (e) What is origami? What is its purpose? What is its importance in child development? Explain., (f) What is storigami? What is its purpose? What is its importance in child development? Explain., (g) Do you think the storigami technique will contribute to your

teaching skills? Why?. Additionally, the participants were requested to write a reflective essay and evaluate the effectiveness of the course on their professional skills.

All these data gathered through written documents were analyzed through thematic analysis strategy. "A method for identifying, analyzing and reporting patterns of themes within data" is how thematic analysis has been described (Braun and Clarke, 2006, p.79). The following analytical steps were involved in this: (1) Written texts were analyzed verbatim, or word for word. (2) Familiarization: To start, reading the transcripts several times gave the researchers a sense of the information and enabled them to make some initial observations. (3) Coding: Documents were coded inductively, meaning that rather than using predetermined codes, the codes were generated from the data. Text passages that expressed a central idea pertaining to the participants' perceptions were coded. (4) Theme Development: After the data was coded, it was arranged into more general themes that reflected the experiences and viewpoints of the participants. After that, themes were revised and clarified to better represent the data. (5) Discussion: To provide a thorough understanding of cutting-edge perceptions, the identified themes are discussed in line with literature review.

Intervention

The aim of the course is to give information about the definition and theoretical framework of the story, creative writing, storytelling methods and its contributions to child development, to emphasize the definition of origami, its types, material properties and its benefits in terms of child development, to inform about the basic folding in origami and the importance of creating figures, to inform about the importance of storigami and to carry out exemplary applications by emphasizing its benefits in terms of child development (Tanju Aslışen and Bafralı, 2025). The 14-week course content is as follows;

- Story: Definition and Theoretical Framework
- Creative Writing with Definition, Scope, Principles and Stages
- Storytelling in Terms of Its Methods and Contributions to Child Development
- Origami: Definition, Types, Material Properties and Developmental Contributions
- Origami in Learning and Teaching
- Origami and Special Education
- Basic Folds and Figure Creation in Origami

- Storigami in Terms of Its Definition and Contribution to Child Development
- Origami and Story Brotherhood: Storigami and Sample Applications

Upon completing this content throughout the semester the expected learning outcomes are;

- Being able to explain the definition of the story and the theoretical framework.
- Being able to explain the definition, scope, principles and stages of creative writing.
- Being able to explain the contributions of storytelling methods to child development
- Being able to explain the definition of origami, its types, material properties and its benefits for child development.
- Being able to explain the place of origami in learning and teaching.
- Being able to explain the use and benefits of origami in special education.
- Being able to explain basic concepts and figure creation in origami
- Being able to explain the definition of storigami and its contributions to child development.
- Being able to apply the storigami method by performing sample applications.

Trustworthiness of the Data

Every research study aims to deliver reliable and valid findings to the field. If a method has been shown to be effective, it is crucial that practitioners in a profession are persuaded that it is worthwhile to pursue (Lincoln and Guba, 1982). Qualitative studies look for solutions by observing and interviewing people to obtain insights into a phenomenon, in contrast to quantitative studies, where the results can be trusted with figures and statistics and the study's scope is more likely to be expanded. Therefore, one could contend that it is impossible to show that a qualitative inquiry can yield trustworthy findings in the same manner as a quantitative study. Furthermore, because the results of qualitative studies are subjective, they could be biased by the researcher.

As recommended by Fraenkal et al. (2012), triangulation of data was carried out to verify the validity of this qualitative study. The conditions were thoroughly detailed in order to guarantee the transferability of the study. Additionally, a more descriptive explanation of the problem was made possible by the large amount of demographic data that the open-

ended surveys collected from the participants. To find out more about the participants' perceptions about the course, the researcher conducted informal negotiations with the participants.

Additionally, to ensure the reliability of the study, participants were asked to elaborate on their answers in focus group interviews after first completing an open-ended questionnaire. Two raters working on the same data can lessen researcher bias, which is a major problem to confirm confirmability, claim Miles and Huberman (1994). The data for this study was evaluated independently by two raters. Seventy percent agreement on the data is acceptable, according to Miles and Huberman (1994). Two coders agreed on the themes after conducting numerous analyses for the current study.

Ethical Considerations

Throughout the entire research process, ethical considerations were crucial to safeguarding the rights and welfare of participants. The following moral standards were adhered to:

An informed consent form explaining the study's objectives, procedures, possible risks, and participant rights was given to each participant prior to their involvement. In order to express their willingness to participate, participants had to sign the consent form.

By giving each participant a unique identification number and eliminating any personally identifiable information from the data, confidentiality was preserved throughout the study. Only the research team had access to the safely stored data. Participants were free to leave the study at any moment without facing any repercussions because participation was completely voluntary. Participants were told that their academic standing and relationship with the institution would not be impacted by their choice to participate or not.

RESULTS

Thematic analysis of the qualitative data presented significant findings. It was found that the participants' perceptions regarding the Storigami in Child Development course changed at the end of the semester. Major themes and the codes can be seen clearly in the table 1. The findings show that the perceptions of the participants about the course revealed three main themes; (a) significance and aim, (b) contribution to teaching skills, (c)

Contribution to child development. When the data examined the codes under related themes appeared to increase after the intervention. In other words, the semantic maps of the participants extended and become more informed.

Regarding the first theme, significance and aim, participants stated that the course is significant because it helps improve language skills, cognitive skills and interaction prior to the intervention. However, after the intervention, seven other codes namely; creates team spirit, causes higher order thinking skills, integrates family, teachers become storytellers, teachers become a team member, learning to use materials effectively. Following quotations can help better understanding the distinction.

“The significance of this course is that we will improve our interaction with students and teaching skills thanks to this technique” (Pre-intervention)

“It was such a great course that it added to my knowledge a lot. I learned how to fold a paper and create a story. The paper became a magical instrument to make use of in the class” (Post-intervention)

“This technique not only creates a better interaction within the classroom but also involves family into the teaching process which is not very easy.” (Post-intervention)

The second theme was about the contribution to teaching skills. It is clear that the participants were aware of the fact that this course would be beneficial for their teaching skills before the course started. They believed that it would improve their creativity, teacher-student communication, learn how to make the abstract concrete and they would learn a fun activity which could help them enter the children’s world. After the course ends, their perceptions about the contribution of the course to their teaching skills extended a lot. In addition to the codes they stated prior to the course, they added that it would be helpful to manage the classroom, improve handcraft skills, be able to turn theoretical knowledge into practice, learn the underlying theory of a fun activity, add to activity repertoire. This extension is clear in the following excerpts;

“It will be definitely helpful for me as a teacher. First of all, I will learn how to be creative, it will also improve my skills to communicate with my students.” (Pre-intervention)

“It is really hard to explain how much the course added to my teaching. I learned how to fold a paper and use it to tell a story which is a great activity to manage the class. I

know a lot of activities but knowing the underlying logic and theory made the technique more meaningful.” (Post-intervention)

As a final theme, contribution to child development appeared from the data. In the beginning of the semester, the participants stated that the technique they would learn in this course would be beneficial for the children as well. Some commonly stated codes are; improving cognitive and language skills, social skills, self-confidence and imagination. There appeared also an extension in the participants’ perceptions upon completing the course. The recurring codes in the participants’ responses after the intervention can be listed as follows; improving early-literacy, patience, hand-eye coordination, motor skills and attention. The vignettes below are depicting this extension;

“Prior to the course I was aware that the technique would increase children’s social skills, language and cognitive skills. When we progressed and came to the final week, I noticed that it would also improve their early-literacy skills, patience and motor skills.” (Post-intervention).

Table 1. Participants’ Pre/Post Intervention Perceptions.

Themes	Pre-Intervention	Post-Intervention
Significance and aim	Improves language skills	Improves language skills
	Improves cognitive skills	Improves cognitive skills
	Improves interaction	Improves interaction
		Creates team spirit
		Causes higher thinking skills
		Integrates family into learning
		Teachers become stoytellers and doers
		Teachers become a team member
Contribution to Teaching Skills		Using materials effectively
	Improves teachers’ creativity	Improves teachers’ creativity
	Improves teacher-student communication	Improves teacher-student communication
	Making abstract concrete	Making abstract concrete
	Learning a fun activity	Learning a fun activity
	Entry to students’ world	Entry to students’ world
		Classroom management skills

		Being able to transfer theory into practice
		Improves storytelling skill
		Improves handcraft skills
		Adds to activity repertoire
		Having theoretical knowledge
		Rules of folding
Contribution to Child Development	Improves cognitive skills	Improves attention
	Improves creativity	Improves creativity
	Improves language skills	Improves language skills
	Improves social skills	Improves social skills
	Improves imagination	Improves imagination
	Improves self-confidence	Improves self-confidence
		Improves early literacy
		Improves patience
		Improves hand-eye coordination
		Improves motor skills
		Improves attention

Additionally, the analysis of the reflective essays written by the participants revealed the following themes; (1) effectiveness of the instructor and the teaching methods, (2) effectiveness of the materials, (3) effectiveness of the tasks and the assignments. Regarding the first theme, the participants focused on the quality of the professor by whom the course was offered. Being a professor in the field of child development, the methods, techniques and the way of instruction she used during the lessons were highly appreciated by the participants. To support these findings, the following quotations, help better understanding;

“The way she instructs was a perfect role model for us. How she uses her vice, how she creates stories and how she folds the paper were all great demonstrations. Not only the materials but her style helped us internalize the subject.”

“The rapport she had with us, her encouraging us when we felt overwhelmed made us believe in ourselves.”

“Her friendly manner, her professional skills of storigami made me follow the courses more willingly.”

The second theme was about the effectiveness of the materials. The participants mostly talked about the readings they were assigned and the materials they used for storigami. They valued the readings a lot because of the fact that they learned the underlying logic of the topic. Moreover, they also stated the attractiveness of the materials they used for storigami. Some participants explained this theme very well.

“Despite being a very new technique, the readings we were assigned made us understand how deep the logic behind stoigami is.”

“While using the colourful papers, I felt like I am opening the doors of a very different world. I was very excited and enjoyed a lot while seeing the product of the all theoretical knowledge we gained.”

The final theme, moreover, was about the tasks and assignment of the course. Eventhough the participants admitted the challenge they had to overcome while doing tasks and the assignments especially the final project, they also underlined the excitement and the feeling of success they experienced during the tasks and the project. Some of the participants’ words make this theme more intelligible.

“In the first week, when our professor explained the syllabus, the tasks and especially the final project really made me afraid. I was very nervous in the first few weeks. But after a while, I started to enjoy when I noticed that I can achieve. This does not mean that I learned very easily, but it means I started to gain the skill day by day.”

“But for the support of our professor, it could be really difficult to manage all the tasks and the project. But the continuous support we received throughout the semester added to our confidence and knowledge a lot.”

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DISCUSSION

The findings of this study resonate strongly with the existing literature emphasizing the critical role of child development education and the need for well-rounded instructional strategies that address the multifaceted nature of early childhood development (Akkaya & Karakuyu, 2023). As established by prior research, early childhood is a formative period in which cognitive, social, emotional, and physical foundations are laid, making it essential for future professionals to be equipped with both theoretical knowledge and practical tools to foster children's growth effectively.

The course *Storigami in Child Development*, as explored in this study, exemplifies the kind of practice-based, experiential learning that current scholarship advocates for. In line with Akkaya and Karakuyu's (2023) assertion that future child development professionals should understand group dynamics, individual differences, and coping mechanisms, this course offered students an opportunity to develop these competencies in a creative and interactive context. The reflective essays and interview data demonstrate that the course not only broadened students' theoretical understanding but also enhanced their confidence and practical teaching skills—supporting their readiness to work in real classroom settings.

Consistent with Tanju Aslışen (2021), who emphasizes the importance of varied and high-quality undergraduate experiences in child development programs, this course provided students with a novel pedagogical technique—*storigami*—that integrates storytelling and origami to create meaningful, memorable learning experiences. Participants' reports of increased creativity, improved classroom management, better communication skills, and deeper understanding of developmental theories highlight the course's alignment with educational best practices. The development of these competencies is particularly crucial for professionals in preschool and early education settings, where engagement, communication, and hands-on interaction are foundational to effective learning.

The findings also reflect the broader benefits of story-based pedagogy, which Mol et al. (2009) argue stimulates oral language and print awareness, and which Golub and Reid (1989) frame as a process of social knowledge construction. The collaborative, interactive nature of *storigami*, as reported by participants, supports this view by fostering both individual and group learning. Students not only internalized the educational value of

storytelling but also experienced first-hand the impact of multimodal, interactive instruction.

Mastin's (2007) conceptualization of storigami as a narrative-creation exercise with cognitive and psychomotor benefits is directly supported by this study. Participants noted improvements in fine motor skills, spatial awareness, attention, and creativity—echoing the wide range of developmental gains cited in previous studies (e.g., Tanju Aslışen, 2021; Petrell Kallevig, 2009; Oğuz, 2016; Tanju Aslışen & Bafrali, 2025). Furthermore, students' reflection on their enhanced critical thinking, patience, and ability to connect theory with practice aligns with the literature highlighting storigami's impact on essential life and learning skills.

The effectiveness of the course's instructional design, including the supportive role of the instructor, meaningful materials, and challenging yet rewarding assignments, further reinforces the idea that professional development in child education must be intentional and multifaceted. As supported by the literature, the structure and delivery of such courses significantly influence student engagement, self-efficacy, and professional growth.

Ultimately, this study affirms that innovative, arts-integrated courses like Storigami in Child Development can serve as powerful vehicles for equipping undergraduate students with the comprehensive skill set needed for effective child development practice. By blending theory with hands-on application, such courses prepare future educators not only to teach but to inspire and support young learners in holistic, developmentally appropriate ways..

CONCLUSION

To conclude, the thematic analysis of the qualitative data, supported by participants' reflective essays, reveals a significant evolution in the perceptions and experiences of those enrolled in the Storigami in Child Development course. Initially, participants recognized the course's potential in enhancing fundamental skills in both teaching and child development. However, by the end of the semester, their understanding had deepened considerably, highlighting the course's wide-ranging and multifaceted impact.

Three primary themes emerged from the interview data: significance and aim, contribution to teaching skills, and contribution to child development. Participants' post-

intervention reflections showed expanded semantic maps, with newly introduced codes indicating more sophisticated, practice-oriented insights. For example, beyond improving creativity and communication, participants began to appreciate the course's role in classroom management, team building, material usage, and integration of families into learning. Similarly, their view of child development broadened to include attention, patience, motor skills, and early literacy, reflecting a more comprehensive grasp of the technique's developmental value.

Further insights were drawn from an analysis of participants' reflective essays, which revealed additional themes: effectiveness of the instructor and her teaching methods, effectiveness of the course materials, and effectiveness of tasks and assignments. The instructor, a professor with expertise in child development, was consistently praised for her engaging teaching style, emotional support, and ability to model storigami practices effectively. Her rapport with students and her skillful storytelling played a key role in participant engagement and confidence-building.

The materials used in the course—including thoughtfully selected readings and visually appealing resources—were valued not only for their aesthetic and motivational appeal but also for the theoretical grounding they provided. Participants expressed particular appreciation for how the materials bridged theory and practice, making abstract concepts more tangible and meaningful.

Although some participants initially found the assignments and final project intimidating, many described a growing sense of accomplishment and motivation as their skills developed. The structured challenges of the coursework, combined with consistent support from the instructor, fostered perseverance, self-efficacy, and deeper learning outcomes.

Overall, the findings suggest that the Storigami in Child Development course succeeded in equipping participants with both practical tools and reflective insights. It fostered not only skill development and pedagogical understanding but also emotional growth, confidence, and professional identity. This course stands as an effective model for experiential learning in teacher education, demonstrating how creativity, theory, and compassionate instruction can be integrated to transform both practice and perspective.

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