

AN INNOVATIVE APPROACH TO FORGIVENESS EDUCATION FOR CHILDREN: USAGE OF MULTIMEDIA

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ABSTRACT

Interactive e-books are designed especially for touch screens and support multimedia content, providing a rich communication environment for users. This form of communication is seen to contribute positively to the learning processes of the digital native generation. Forgiveness education has long been supported by studies to improve mental health. However, it has been observed that the guidebooks used in forgiveness studies for children convey the stories only verbally and do not take into account the learning habits of digital natives. To offer a solution to this problem, an interactive e-book that teaches forgiveness to children aged 9-11 using art and information technologies was developed. In the study, a story containing the essential components of the concept of forgiveness was written, and this story was enriched with visual, audio, and interactive techniques. The quantitative results of this approach, which is a pioneering study showing that art and information technologies can contribute to forgiveness education, can be investigated in future studies. The positive results that can be attained may contribute to the widespread use of forgiveness education that improves children's emotional and mental health by eliminating the need for a trainer in forgiveness education studies.

Keywords: Multimedia, Interactive e-book, Child and Adolescent Forgiveness Education, Digital Native Generation, Graphic Design

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Introduction

Education professionals have long emphasized the benefits of 'multisensory learning', where multiple senses are involved in the learning process, for the improvement of the quality of learning. Emerging digital technologies have led to the development of tools like interactive electronic books (e-books) and three-dimensional printers, producing materials suitable for multisensory learning. These outputs have the potential to be an essential opportunity both in developing learning materials that are compatible with children's learning habits that have differentiated as a result of technological developments and in distributing contemporary education to the masses in a relatively fairer way as a result of the widespread use of digital and internet technologies. Graphic art can also find its place in the field under the title of multimedia in the development of multisensory educational materials, which should be addressed in a multidisciplinary field.

The subject of 'forgiveness education,' led by the field of psychology and drawing on various disciplines, has been receiving significant attention in recent years. Studies on forgiveness education show that it has a positive impact on individuals' mental well-being. The studies emphasize the importance of forgiveness education, especially for children. It is believed that the earlier an individual internalizes the concept of forgiveness, the longer they will experience the mental well-being associated with forgiveness throughout their lives. Furthermore, the mental well-being associated with forgiveness is seen as being influential, starting from childhood and spreading to society as the children of today become the adults of tomorrow. With this premise, our study aims to develop a forgiveness education model that captures the interest of today's children by proposing the use of art and technology tools in childhood forgiveness education. We also seek to make forgiveness education more accessible to a wider audience. To achieve this, we addressed the question of 'how have children's learning habits changed in today's information society structure that emerged with the support of information technologies?' in our research, alongside examining forgiveness education studies for children. In the light of the research results in the article, which uses action research method, which is one of the qualitative research designs, an interactive e-book proposal was presented for children to learn forgiveness on their own without the need for an instructor by taking the "Joyful Forgiveness Guide" developed for children aged 9-11 as a model, which is frequently used in child forgiveness education studies and whose success has been proven by studies.

Multimedia and learning relationship

Multimedia can be briefly defined as the organization of verbal and visual elements for entertainment or education and the presentation of information through various technologies. While verbal elements can be plain or audio texts, visual elements can include graphics, maps, videos, animations, illustrations, photographs, etc. Accordingly, PowerPoint presentations, films, and animations can be examples of multimedia (Perkmen & Öztürk, 2009). Nowadays, when mobile devices have become widespread and digital books support multimedia content, interactive e-books have become sufficient to develop and present multimedia environments. Interactive e-books are digital books in which the user and the digital book interact at a high level, and various communication channels are used (Bozkurt & Bozkaya, 2013). This multichannel learning experience, provided with the participation of the senses of sight, hearing, and touch, is a subject that educational scientists have been working on for a long time. For example, educator Johann Heinrich Pestalozzi emphasized the importance of multichannel learning and preferred children's experience of their concrete environment to textbooks (Başalev, 2022).

On the other hand, studies have been conducted on the usability of radio, cinema, and television in education since the beginning of the 20th century. Edgar Dale explained that learning experiences with audiovisual media progress from concrete to abstract. The idea that purposeful experience has a positive effect on effective communication and learning is still valid today (Lee & Reeves, 2007).

Developments in information and communication technologies since the 1980s have increased the individual's exposure to continuous and diverse messages. It is thought that this situation differentiates today's youth neurologically and emotionally from previous generations (Affleck, 2008). This generation, which was born into a personal computer and internet technology and can be defined as 'Digital Natives,' is generally differentiated as a generation that puts the digital world at the center of their lives, prefers fast access to information and graphics instead of text, has non-linear reading habits, and prioritizes learning through games and discovery (Prensky, 2001; Bilgiç et al., 2011). For this reason, interactive e-books prepared under the expectations of digital natives will support the modern understanding of education by

offering students a learning experience full of discovery with multimedia support.

Interactive E-Book Design for Children

In designing educational interactive e-books for children, a graphic interface design suitable for the typography, illustrations, and page layout of children's books should be prioritized, and digital features such as music, sound effects, and interaction design should be handled according to the principles of relativity to children. Illustrations in illustrated children's books aim to serve a specific purpose, be understandable, and convey a message (Songür Dağ, 2015). Illustrations are essential in strengthening the text or as an independent means of expression. For this reason, the developmental characteristics of the target audience's age group should be well-known and built on this information in producing illustrations.

Human development is evaluated in four dimensions: physical, mental, emotional, and social development, and there are complex relationships between these dimensions (Gander & Gardiner, 2004). Jean Piaget classified the cognitive developmental stages of children as sensory-motor period (0-2 years), preoperational period (2-7 years), concrete operational period (7-11 years), and abstract operational period (11 years and above) (Karaşahinoğlu, 2018). On the other hand, it has been noticed that children reflect their way of thinking, content, and perception styles in their drawings, and there are some age-related stages in the development of drawing. In this regard, according to Viktor Lowenfeld's 'Stages of Artistic Development' theory, the developmental stages of children's painting are classified as Scribble Stage (2-4 years), Pre-Schema Stage (4-7 years), Schematic Stage (7-9 years), Pre-Puberty Stage (9-11 years), Age of Reason (11-13 years) and Adolescence Crisis (13 years and above) (Ülger, 2023). It has been observed that children's drawings give clues about the child's physical and social environment, emotions, and inner world and that the subjects and objects of interest vary according to age and gender. For example, children in the 9-11 age group, who constitute the target group of this study, are in the Pre-Adolescence Stage according to Piaget's concrete processing period and Lowenfeld's artistic development stage. While girls in this age group usually draw brides and grooms, queens, hearts, women's faces, clothes, houses, flowers, and animals with babies, boys work on subjects such as boats, planes, trains, war and sports scenes, football and weapons. In addition, children in this age group are in a period when they begin to understand the concept of color, perspective, and proportion, and metaphorical comprehension develops (Geç, 2018) (Kararmak, 2015).

Like all other written materials, readability is an important criterion in children's books. The Ministry of National Education recommends that the main text of textbooks should not be smaller than 14, 12, and 11 pt. for 3rd, 4th, and 5th graders, respectively (<http://ttkb.meb.gov.tr>). However, large font sizes may also reduce the child's interest in the book (Zengin & Zengin, 2007). It is also important that the spaces between letters and lines and line lengths are appropriate. Line length should not be more than 7-8 cm for primary school Grade 1-5 students (Karatay, 2011).

Forgiveness: Definition, Process and Role in Education

Forgiveness is a strategy for coping with injustices, but it doesn't mean tolerating or excusing the offender, nor does it coincide with the expectation of justice. According to Prof. Dr. Everett L. Worthington, forgiveness doesn't involve approving the offender's actions or the victim's demands for justice or compensation. It's not considered forgiveness if the victim doesn't get even with the offender, doesn't feel a sense of justice, or justifies or ignores the offense. (Erdoğruca Korkmaz, 2014). Various models developed by researchers are essential in understanding the forgiveness process and learning true forgiveness (Enright & Fitzgibbons, 2000).

Research shows that increasing the level of forgiveness in adults positively affects mental health by increasing self-esteem and self-confidence and reducing anger and anxiety (Kim, 2022). In children, an increase in willingness to forgive, empathy, hope, and life satisfaction, and a decrease in anger, hostile attitude, tendency to crime, prejudice, depression, and anxiety levels were found (Asıcı, 2019). In this context, forgiveness education activities with children can improve mental health, prevent violence in schools, and build a peaceful society (Taysi & Orcan, 2015). It is thought that forgiveness education has a protective effect on the individual against the negativities that may be encountered in the future (Pala Öztürk, 2021).

The child's developmental stage is essential in child and adolescent forgiveness education studies. Psycho-educational materials such as small group work, stories, puzzles, songs, watching videos/films, group

games, and sample scenarios are generally used according to the child's developmental stage (Asıcı, 2019). In Enright's forgiveness process model, guidelines suitable for each grade level from 4-5 years old to 17-18 years old; the number and duration of lessons vary according to the child's developmental level, but all guidelines are based on the five moral principles of goodness (**The International Forgiveness Institute**,; Asıcı, 2019).

Joyful Forgiveness Guide

In this study, one of Enright's process models, the 'Joyful Forgiveness Guide' prepared for children aged 9-11, was followed as a guideline within the scope of the study (Knutson Enright & Enright, 2008). The first three lessons of the guide, consisting of ten lessons, aim to teach the student what forgiveness is and is not, that every human being has an innate value, the meaning of moral love, and how it is presented. The following seven lessons aim to teach the student how to show generous love to the offender in the process of forgiveness, why forgiveness is good, how to forgive, and the possible effects of forgiveness on people and societies.

Each lesson in the manual is separated from the other chapters by a heading, and the chapters themselves are discussed in the following subsections:

- 1) Main ideas: The section summarises the learning outcomes that are intended to be taught.
- 2) General objectives: This section explains the concepts that are aimed at improving the student's understanding of the structure of the concept of forgiveness.
- 3) Behavioural objectives: The section introduces the story to be read, listened to, or watched, the discussion and activity to be carried out with the group
- 4) Recommendations on the choice of book, DVD, or video (film) to be used in the chapter: This section defines a framework for the story's content to be used.
- 5) Materials The related section introduces the activity to be carried out.
- 6) Methods: Detailed information on how to talk to the students and what to address is provided to guide the person carrying out the forgiveness training.
- 7) Discussion questions: Discussion questions related to the section and the answers that students are expected to reach by reasoning are listed.
- 8) Activities: If an activity is decided to be done in the relevant section, the materials, objectives, and instructions of the planned activity are briefly introduced in the materials section.
- 9) Student evaluation: There is a checklist of what the instructor should do and the intellectual and behavioral goals that the students are expected to achieve in the department.
- 10) Evaluation of the lesson: This is the part where the trainer prepares a general report about the lesson.

Materials and Methods

Multimedia Model Proposal in Forgiveness Education for Children

When the 'Joyful Forgiveness' guidebook designed for the 9-11 age group, which was taken as a guide within the scope of the study, was analyzed in order to be interpreted as a multimedia material, an interactive e-book was developed (<http://www.dilarapalaozturk.com>). This e-book is structured in three main layers: stories used in education, activities performed, and discussion questions. The story, planned as a digital story, was handled in sub-sections, such as content fiction, visual and formal fiction, auditory fiction, and movement and interaction fiction. The Scientific Research Fund of the Suleyman Demirel University supported this work (Project Number: 5011-D2-17).

Content scope of the story

Regarding the story, an original story called 'Ateş' was written in the fourth article of the guide (Pala Öztürk, 2021). Within the story's scope, four main characters were created: 'Çetin,' 'Ela,' 'Melisa,' 'Ateş,' the character of 'Mother,' and various 'student' characters (Figure 1). 'Çetin' as a bully character and the possible emotions that bullying can make the victim feel are explained through the character of "Ela," with more than one example of injustice.

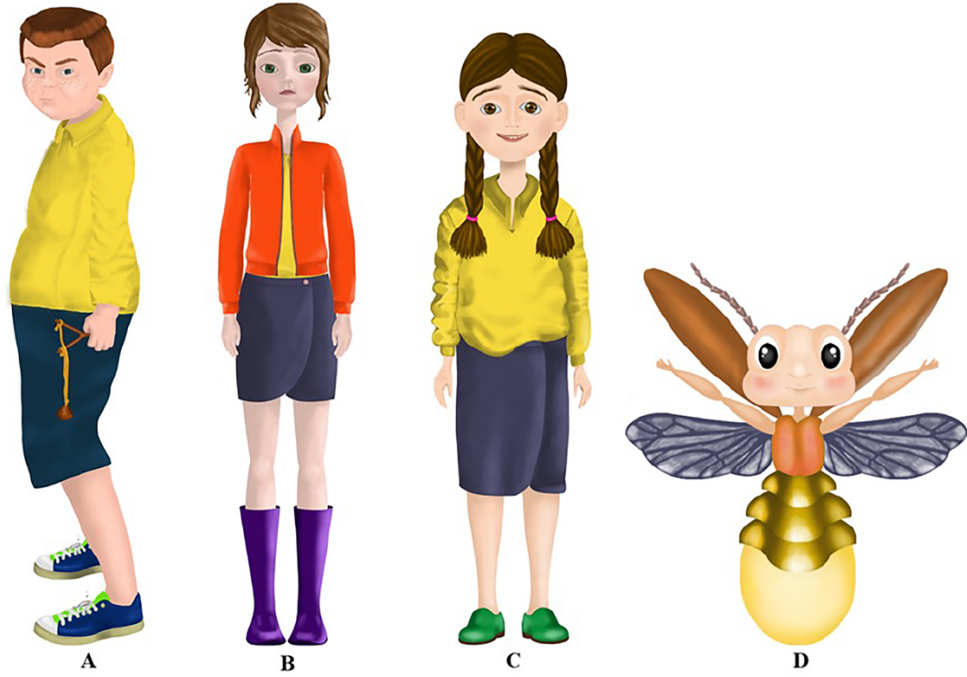


Figure 1: Main character designs of the story. A: Çetin B: Ela C: Melisa D: Ateş

The behaviors of evaluating and classifying people based on subjective judgements such as appearance and academic success, which are frequently encountered in social life, are also observed in the peer relations of the target audience. For this reason, the idea that everyone ‘has an innate value,’ which is one of the virtues that form the basis of forgiveness by establishing thought and behavior connections through similar examples in the reader's daily life, is introduced through the character ‘Melisa.’ At the end of the story, Melisa, who is understood to be a character who has learned forgiveness, is described as the only person who comes to Ela's aid despite being subjected to social isolation and bullying. In this way, the moral love underlying true forgiveness is introduced by showing that Melisa loves and cares for Ela unconditionally despite her flaws and behavior. On the other hand, Ela's refusal to accept Melisa's gift, which contains the five moral principles of goodness in its structure, implicitly expresses that forgiveness does not require mutual reconciliation.

An analogy is established between the power of forgiveness and the character of "Ateş (Fire)", who is designed as a wise character who illuminates the darkness and a hero with fantastic powers, such as contacting people secretly and creating a leap in time. In the rest of the story, the change in the life of the protagonist who chooses forgiveness for the better and the concepts of moral love, kindness, respect, and generosity, which are the other virtues of forgiveness, are given implicitly through actions and dialogues such as greetings, hugs, etc. As a result, as stated in the guide on the content of the story, the story includes one or more examples of injustice, conflict between the characters, emotions such as anger and sadness felt after the injustice, and an effort to offer benevolence and love to the violator at the end of the story. After the story was written, the illustrations were drawn.

Illustrations, Moving Images and Interaction Design

It was prioritized to create visual integrity in all scenes of the work completed in twenty-four scenes. The cover design, table of contents page, page numbers, and icons of the study sections on the pages were designed accordingly and organized following the content. In addition, visual, auditory, and interaction designs aim to attract the reader's attention, learn permanently with fun, and be guided correctly in the story. For this purpose, the command buttons to be used in the study, such as information area, click, click for music selection, go to the previous page, go to the next page, rotate the screen, drag and drop, were designed in vivid colors and animated (Figure 2). Students could use the interactive e-book more efficiently with these buttons. To make the relatively complex command buttons more clearly understood, they were introduced animatedly in the information area located in the upper left corner of each scene.

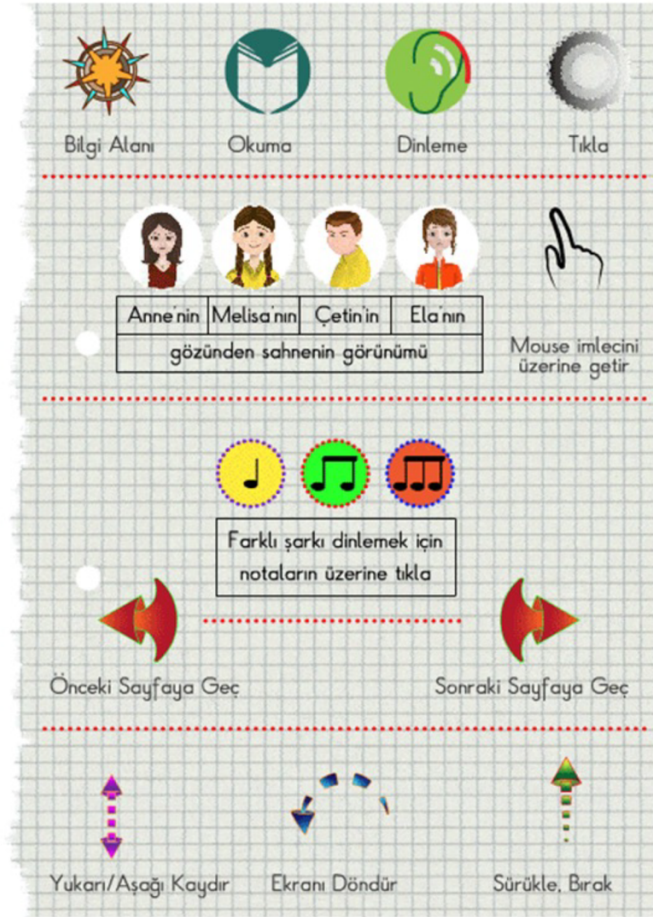


Figure 2: Information Area

While creating the visual language, the artistic and cognitive developmental stages of the 9-11 age group and their common interests were considered. For example, vehicle designs, traffic lights, etc., which are known to be of interest to boys in this age group; visuals such as houses, flowers, etc., which are known to be of interest to girls; and interactive activities such as feeding food emulating the game of house playing were included (Figure 3).



Figure 3: Examples of Interactive Activities

One of the characteristics of the realism period was the dominance of strict realism, which was aimed at the target audience. Characters were depicted as close to reality as possible, without much exaggeration and stylization, to foster a sense of familiarity with the reader. However, to intensify the transfer of the character's mood to the reader, gestures and facial expressions were deliberately exaggerated, allowing the audience to feel the full force of the characters' emotions (Figure 4).



Figure 4: Exaggerated Gestures and Facial Expressions of the Character in Relation to the Background

Use of Metaphor

The study's target audience is in an age group that can comprehend the language of expression with metaphors. Metaphors were frequently used in verbal and visual expression within the scope of the study. For example, Çetin, designed as a bully character with a slingshot in his hand, aimed to explain the destructiveness of bullying for himself and his environment by breaking the stage with stones. The stage breaking and disappearing together with his image visually represented the impact of bullying (Figure 5). Additionally, the physical effects of revenge and anger were metaphorically depicted with results such as accidents and injuries, while the psychological effects were symbolized with concrete tools like clouds and chains (Figure 5). The concept of love was associated with the elixir, illustrating that the feeling of well-being resulting from forgiveness can bring about a state of well-being starting from the individual and spreading to society. Using these metaphorical elements aims to create a fantastic mystery in the story to arouse the reader's curiosity and draw more attention to the narrative.

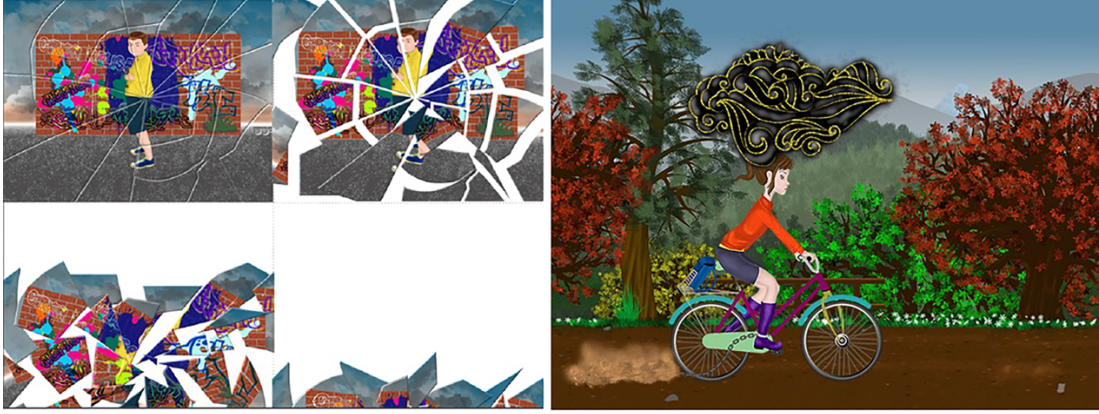


Figure 5: Metaphorical Expression Examples

Typography

In order to increase the readability of the text typographically and avoid distracting the students' attention, the 'Sassoon' font family was designed especially for children of this age group (Figure 6) (Bessemans, 2016). In order to make the interactive e-book easy to read on mobile devices, the size of the letters was used between 10 and 40 points. For the letters to be easily selected, the spaces between the letters and between the lines were carefully adjusted, and the texts were placed on semi-transparent plain surfaces to facilitate reading on each page but to ensure that the eye completes the view of the whole scene.

Çetin okulun en yaramaz çocuğuydu
çünkü herkese tatsız, incitici şakalar yapardı.

Figure 6: Sassoon Font

The background is a gloomy and pessimistic sky with cold, muted colors, grey-toned asphalt ground, and bright, warm colors like a sunrise on the horizon, symbolizing hopeful expectations at the end of the story. On the brick wall, there is clearly written hate speech about Ela, the victim character, using graffiti techniques. This speech refers to behaviors such as 'name-calling, teasing, intimidation' (Wolke et al., 2000), which are characteristics of verbal peer bullying, and 'social exclusion, spreading rumors, not making friends' (Wolke et al., 2000), which are characteristics of relational or indirect peer bullying (Figure 7). Many studies indicate a connection between graffiti or graffiti writing behavior, typically associated with adolescence and youth, and it's intended to contribute to the understanding of visual expression and emotion conveyed through typographic expression (Sarıkaya, 2018; Başer et al., 2014). Additionally, it aims to portray the aggressive, staining nature inherent in peer bullying to the reader through paint stains randomly scattered on the wall.



Figure 7: Use of Graffiti in the background

Use of Colour

In general, striking, vibrant colors were used in the study. However, in some scenes, grey tones were preferred for characters representing crowded communities to draw attention to the target character (Figure 8). On the other hand, it was aimed to reinforce the characters' emotional states in the viewer's perception by using the psychological connotations of colors. For example, it is known that purple can evoke emotions such as pessimism, sadness, regret, cowardice, panic, or fear. Research shows that sensitive people like purple (Yılmaz, 1991).



Figure 8: Examples of Colored and Grayscale Characters

For this reason, the character Ela is depicted with purple boots to reflect her sensitive, fragile, touchy, melancholic emotional state. It is known that green does not connect with any worldly events, such as passion and sadness in human psychology, nor does it show any activity for any emotion. This situation is believed to give human psychology peace, comfort, and calmness. However, after a while, human emotions are disturbed by this indifference and look for an active color like red next to green. On the other hand, studies show that green is the color of sloppy people (Yılmaz, 1991). In light of this information, green was preferred for Melisa's shoes to reflect her forgiving, serene, and happy personality traits. The green color was also preferred to reflect the poorly dressed and slovenly characteristics that cause her to be excluded by her

friends, and it was aimed to strengthen this perception with the oversized and shabby appearance of her clothes. On the other hand, red was preferred as a warm contrasting color for the hairpins to move visual perception.

The use of color in background designs enhances emotional states. In the scene where Ela is introduced, the slightly cloudy sky, the path formed by stones surrounded by green grass on the ground, and the rose hedges placed with a one-way perspective are positioned to the right and left of the stage to convey her lack of anger. In the foreground, Ela is seen without body language, gestures, or facial expressions that might indicate a negative mood. Two seconds after the scene opens, the reader is directed to an interactive game. With each click, roses bloom on the fences, accompanied by sound effects that aim to praise and reward the lack of anger. However, to visually introduce anger, when the mouse cursor hovers over the character, body language, and facial expressions visually reflect the angry mood. Simultaneously, the cool colors in the background disappear, green live plants wither, and warm shades of red dominate the scene. It is known that the color red is subconsciously linked to chaos, as it brings to mind bloody and violent institutions and wars that arise from ambition, passion, and anger (Özdemir, 2005). On the other hand, it has been scientifically proven that warm colors increase blood pressure, accelerate blood flow, and excite people (Ertan & Sansarcı, 2016). Based on this information, the intention is for the harmful and destructive effects of anger on oneself and one's environment to be felt by the reader through the use of red tones.

Interaction Design

The reader is encouraged to form a strong emotional bond with the characters in the story. This will help them understand the serious impact of certain negative behaviors in their daily lives. In the story, negative actions like Çetin throwing stones with a slingshot and breaking the window, Çetin pushing Ela down the stairs, and Ela falling off the cliff with her bicycle are presented for the reader to interact with. The reader's role is important, as they can engage with the story using commands such as click, drag, and drop, influencing the outcome. This allows room in their minds for positive behaviors like collecting scattered books, tending to wounds, feeding, brushing teeth, and following social rules such as simple traffic regulations about care. This interactive approach is intended to make the story engaging, capture the reader's attention, and prompt them to consider the consequences of negative behaviors by giving them responsibility through interaction. The goal is to evoke emotions of compassion, kindness, and love, encouraging positive behaviors that contribute to forgiveness. Additionally, the story is dramatized to leave a lasting impression on the readers' memories, reminding them of daily routines, self-care, and social rules that are integral to their lives.

Discussion and Conclusion

Forgiveness education activities for children, usually carried out in large groups, are led by experts or individuals with group counseling training on forgiveness education. These training sessions have been shown to significantly contribute to the mental well-being of children, especially in terms of learning forgiveness (Magnuson & Enright, 2008; Asıcı, 2019). One of the main goals of the study is to address the current limitations in forgiveness education for children. By making forgiveness education independent of time and place, our aim is to create a more inclusive platform that can reach a wider audience for children's forgiveness studies. Additionally, we seek to support donation efforts for children through the use of art and technology tools, and by presenting a collaborative proposal that invites active participation and input from children.

The study specifically targets children, with the idea that introducing the concept of forgiveness at an early age can have lasting effects on their mental well-being and contribute to social peace in the future. In line with these objectives, an interactive e-book application was designed, supported by digital technologies and artistic tools, and incorporating multimedia elements based on Enright's "Joyful Forgiveness Guide" (Knutson Enright & Enright, 2008), which is one of the most widely used forgiveness education guides for children aged 9-11.

Considering the aim of transferring the Joyful Forgiveness Guide to the digital environment in all its aspects, it was thought that the study could be handled in three main categories: stories, activities, and discussion questions. When the Joyful Forgiveness Guide was examined, it was seen that the themes that should be included in the stories to be subject to the forgiveness education study were determined. Enright's five basic moral principles were especially recommended in the story. In light of these expectations, an

original story, "Ateş (Fire)" was written. The title "Ateş (Fire)" was chosen to symbolize the intense emotions and conflicts that often precede the need for forgiveness, a theme central to the story. The story was written considering the educational characteristics of the 9-11 age group. Then, the story's illustrations were started. However, it was identified as a problem that, although the guide recommended preferring illustrated children's books, it needed to describe the visual and formal characteristics of the books. Therefore, in designing the visual and formal elements of the story, the illustrations were drawn considering references such as the developmental and educational characteristics of children in the 9-11 age group, their linear developmental stages, and the visual and formal characteristics determined for children's picture books for this age group. In the formal features of the book, page layout, visual and formal design, and graphic interface design principles of children's books for the age group 9-11 were taken as references. Thus, through our study, a visual and formal scope proposal was also developed for picture children's books that are recommended to be read in the forgiveness education guide for children during the education process. After the illustration work was completed, the team focused on designing animations. In addition, to strengthen the intended emotional impact of each scene, music professionals in audio editing created original compositions, showcasing the team's dedication to creating a truly immersive reading experience. Sound effects were downloaded from the copyright-free website www.freesound.org and used. An audio description option is provided in Turkish throughout the book. In the literature review, we also came across a study that set out with a similar goal to ours and planned with different elements of art and technology to bring forgiveness education activities to a broader audience. Based on Ervin Staub's academic research, the study shows how fictional radio theater programs have had a positive impact. These programs were created to help heal the social and psychological wounds that resulted from the 1994 genocide in Rwanda and to promote peace and unity in Rwandan society. A similar broadcast was also developed in Congo, and these broadcasts are still ongoing today, with support from multinational donors and organizations such as the European Union (source: www.musekeweya.org, [14.07.2021]). This study is groundbreaking as it demonstrates the potential of radio as a mass communication tool and introduces the concept of mass donation through radio. This medium engages the sense of hearing and uses radio theater to draw from literature and theater art. In our study, we focused on the learning habits of the 9-11 age group, who represent the digital native generation. Our aim was to create a more engaging learning experience by incorporating interactive e-books and utilizing various art forms such as graphics, painting, music, and animation. Furthermore, our study, which will be written and audio-described in Turkish, can be translated into the native languages of children from disadvantaged groups, reaching children globally. The fact that no similar study was found in the literature review on forgiveness education for children highlights the originality of our research.

The study has limitations because it aimed to transfer the Joyful Forgiveness guide to a digital format, including stories but excluding activities and discussion questions. The Joyful Forgiveness Guide has twelve different activities within its ten lessons. This study presents exciting opportunities for future improvements. The manual describes various activities such as creating digital games (e.g. puzzles) within an interactive e-book and suggests incorporating technological innovations like three-dimensional printers, virtual reality, and augmented reality. By organizing discussion questions in electronic forms, readers can seamlessly integrate their answers into the e-book, creating a more interactive and engaging experience. Additionally, plug-ins that enable communication and discussion through written or video form can be incorporated to facilitate interactive discussions within the e-book.

Our subsequent study will investigate the effects of an interactive e-book study, where activities and discussion questions are integrated, on children's forgiveness levels and mental well-being. We will use quantitative measurements, such as a comparison with standard forgiveness training, to provide clear and informative results.

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ÇOCUKLARA YÖNELİK BAĞIŞLAMA EĞİTİMİNDE YENİLİKÇİ BİR YAKLAŞIM ÖNERİSİ: MULTİMEDYA KULLANIMI

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ÖZ

Etkileşimli e-kitaplar, dokunmatik ekranlar için tasarlanmış olup multimedya içeriği destekleyerek kullanıcılara zengin bir iletişim ortamı sunar. Bu iletişim biçiminin, dijital yerli neslin öğrenme süreçlerine olumlu katkıları olduğu görülmektedir. Bağışlama eğitiminin, zihinsel sağlığı geliştirdiği, uzun yıllardır yapılan çalışmalarla desteklenmektedir. Ancak, çocuklara yönelik bağışlama çalışmalarında kullanılan kılavuz kitapların, öyküleri sadece sözlü olarak aktardığı ve dijital yerlilerin öğrenme alışkanlıklarını dikkate almadığı gözlemlenmiştir. Bu probleme ilişkin bir çözüm önerisi sunmak amacıyla, 9-11 yaş grubundaki çocuklara sanat ve bilişim teknolojileri kullanarak bağışlamayı öğreten etkileşimli bir e-kitap geliştirilmiştir. Çalışmada, bağışlama kavramının temel bileşenlerini içeren bir öykü yazılmış ve bu öykü, görsel, işitsel ve etkileşimli tekniklerle zenginleştirilmiştir. Bağışlama eğitiminde sanat ve bilişim teknolojilerinin katkı sağlayabileceğini gösteren öncü bir çalışma olan bu yaklaşımın, gelecek çalışmalarda nicel sonuçları araştırılabilir. Elde edilecek olumlu sonuçlar, bağışlama eğitimi çalışmalarında eğitici kişiye olan ihtiyacı ortadan kaldırarak çocukların duygusal ve zihinsel sağlıklarını geliştiren bağışlama eğitiminin yaygınlaşmasına katkı sağlayabilir.

Anahtar Kelimeler: Multimedya, Etkileşimli E-kitap, Çocuk ve Ergen Bağışlama Eğitimi, Dijital Yerli Nesil, Grafik Tasarım