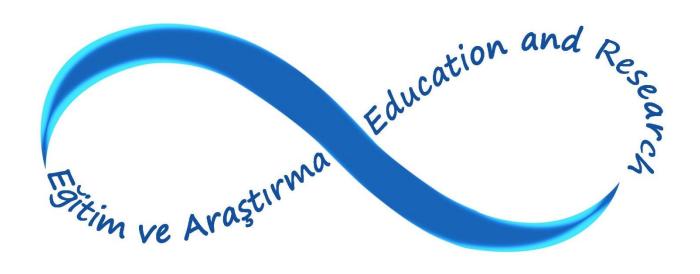


## Sınırsız Eğitim ve Araştırma Dergisi



## The Journal of Limitless Education and Research

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# The Process of Computer Animation Design and Development for Education of Children's Rights: The Effects on Attitudes and Awareness towards Children's Rights

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Abstract: The study was conducted to determine the effects of the animation design process for children's rights on the attitudes and awareness of prospective teachers of information technology. The research has been designed in parallel with convergent parallel design of the mixed methods research designs. The study group of research consisted of 48 prospective teachers that are determined by convenience and criterion sampling methods. In the acquisition of the research data, "Children's Rights Attitude Scale"" developed by Karaman Kepenekci, "Scale of Awareness of Children's Rights in Teaching Process" developed by Kor and "Open-ended Questionnaire Form on Children's Rights" were used. While T-test was used for parametric tests and Wilcoxon Marked Rank Test was used for non-parametric tests in the analysis of quantitative data of the study, content analysis technique was used in the analysis of qualitative data. As a result of the research, it was seen that the attitudes of the students in the animation development process regarding the children's rights were significantly improved at the end of the process. In addition, it was revealed that the level of knowledge and awareness of students about children's rights has improved. Accordingly, it was found out that developing and using educational animations in educational processes is preferable approach in terms of the effectiveness of the educational components in promoting perceptions and attitudes towards children's rights in the process of children's rights education.

**Key words:** Child, Children's Rights, Education of Children's Rights, Educational Animation Design, Prospective Teachers of Information Technology.

# Çocuk Hakları Eğitimine Yönelik Bilgisayar Animasyonu Tasarım ve Geliştirme Süreci: Çocuk Haklarına İlişkin Tutum ve Farkındalıklar Üzerine Etkiler

Özet: Bu araştırma, çocuk haklarına yönelik animasyon geliştirme sürecinin Bilişim Teknolojileri (BT) öğretmen adaylarının tutum ve farkındalıklarına yönelik etkisinin belirlenmesi amacıyla gerçekleştirilmiştir. Karma araştırma yaklaşımlarından yakınsayan paralel desene uygun olarak tasarlanan gerçekleştirilen araştırmanın çalışma grubunu, kolay ulaşılan ve ölçüt örneklem yöntemleri ile belirlenmiş 48 öğretmen adayı oluşturmuştur. Araştırma verilerinin edinilmesinde Karaman Kepenekçi (2006) tarafından geliştirilmiş olan "Çocuk Haklarının Farkındalığı Ölçeği" ve "Çocuk Haklarına İlişkin Görüş Formu" kullanılmıştır. Araştırmanın nicel verilerinin analizinde parametrik testlerden T-testi ve parametrik olmayan testlerden Wilcoxon İşaretli Sıralar Testi, nitel verilerinin analizinde ise içerik analizi tekniğinden yararlanılmıştır. Araştırma sonucunda, animasyon geliştirme sürecinde yer alan öğrencilerin çocuk hakları konusuna ilişkin tutumlarının, süreç sonunda anlamlı şekilde gelişim gösterdiği görülmüştür. Ayrıca öğrencilerin, çocuk hakları konusundaki bilgi düzeylerinin ve farkındalık durumlarının geliştiği görülmüştür. Bu doğrultuda araştırma sonucunda, çocuk hakları eğitimi süreçlerinde eğitsel animasyon geliştirilmesinin ve bu araçlardan yararlanılmasının eğitim bileşenlerinin çocuk haklarına ilişkin algı ve tutumlarının geliştirilmesindeki etkililiği açısından tercih edilebilir bir yaklaşım olduğu görülmüştür.

Anahtar Kelimeler: Çocuk, Çocuk hakları, Çocuk hakları eğitimi, Eğitsel animasyon tasarımı, bilişim teknolojileri öğretmen adayları

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#### 1. Introduction

In today's life in which scientific knowledgeis a part of individuals' lives, it is important that the individuals in the society have the competences such as creative thinking, problem solving, critical thinking skills and effective communication, producership, as well as having or awareness of ethics, rights and responsibilities in for the development of societies. While these skills and competencies provide for the continuity and progress of society; achievements such as ethics, rights and responsibility provide the sustainability of community life and the development of important attitudes, thoughts and awareness such as democratic understanding, social responsibility, respect for the rights of others, justice and equality (Flowers, 2007; Ozdemir Dogan, 2017). Children's rights, which form a special area of rights, aim to protect the children from adverse effects such as violence, abuse and neglect, as well as child labor and to meet basic needs such as health, education and sheltering in addition to be raised on emotionally favorable conditions (Nelken, 1998; Shumba, 2003; Covell, Howe and McNeil, 2010; Hammarberg, 2012). There are different classifications for the basic and sub-titles of children's rights based on the Convention on the Rights of the Children adopted by the General Assembly of the United Nations in 1989, came into force in 1990 at international level (142 countries) and began to be implemented in our country in 1995 (Akyuz, 2015; Serozan, 2005). Children's rights are classified into five categories based on social approach (Ozgirgin, 2004):

- Life and growing (medical care, nutrition, sheltering, right to education, right to play and rest, freedom of thought and faith)
- Protection (protecting the child from all kinds of neglect and abuse)
- Equality being no respecter of persons (equality of every child under the law without any discrimination related to anguage, religion, race, thought, status etc.)
- Child's interests (prioritize the child's interests)
- Right to participate (expressing the child's own thoughts, actively participating in the decisions taken)

Children's rights are classified into four categories based on philosophical approach (Franklin, 1993):

- Rights of welfare (accommodation, medical services, nutrition and education),
- Protectionist rights (preventing against inadequate attention, domestic neglect, physical or psychological negative behaviors)



- Adult rights (having the same rights as adults),
- Rights towards parents (independence)

Educational rights defined in the Convention on the Rights of the Child, which aim to provide children with the right to life, development, protection and participation in the context of universal norms and principles and to protect them from all kinds of negligence, abuse and maltreatment (Akyuz, 2001) is important for the development of social consciousness (Howe and Covell, 2005). In other words, an effective and continuous education on the rights of children based on cognitive, emotional, physical, social, moral and economic protection and development (Akyuz, 2015) is important for individuals to become democratic and humanitarian participating citizens (Claude, 2003). In order for children's rights education to be perceived as effective, it must be based on the theoretical knowledge and practical skills for appropriate use in the real life situations encountered regard to rights. For the perception of children's rights to be perceived constantly, it is related to the provision of all the field teachers who contact children's learning, and even the entire population of the school, instead of a single field teacher. In other words, Education of children's rights can be achieved through a school culture that encompasses all stakeholders on the basis of teaching children about rights and the nature of rights, and reflecting them as real life behaviors rather than teaching them about appropriate behavior in only knowledge base (Lansdown, Jimerson and Shahroozi, 2014). However, creating a school culture that will be effective for children's rights is a difficult and complex process (Fullen, 2007; Covell et al., 2010). Because school culture is directly affected by internal stakeholders such as managers, teachers, students and other employees (cafeteria, canteen, officer, servant etc.) as well as a wide range of external stakeholders including parents, dormitories, security and service staff. Positive communication on the basis of human rights among these stakeholders affects the school climate and culture and allows children to comfortably enjoy their rights in the school environment, the first environment they meet after their family environments (Kepenekci, 2008). However, the necessity of professionalization of all stakeholders for the creation of a school culture based on children's rights, as well as the coordination and coordination that stakeholders must have brings with it many difficulties and complications. This complexity can be overcome by structuring all stakeholders and the teaching to be provided on the basis of children's rights in general base. In particular base, it is significant that the teachers, who play a decisive role in the quality of children's rights education and are one of the most important elements of the process, have knowledge of these rights and be an example to the students with their use of this information, their positive views and attitudes and

their behavior (Peker Unal, 2010). For example, it can be shown that a student who is exposed to negative behaviors (dislike, bad behavior, ignorance, etc.) by the teacher has exposed to also similar behaviors by other students or students do not exhibit an appropriate behavior that the role model teacher recommends but does not apply (Donmez, 2015).

One of the main problems in the education of children's rights is that adults can not recognize their children's rights and another problem is the lack of qualifications to teach children's rights in teacher education (Covell, Howe and McNeil, 2008). It is obviously seen that teacher education programs in universities do not have courses for children's rights and education in our country, and for this reason, teacher candidates have graduated without having enough knowledge about teaching children's rights (Ozdemir Uluc, 2008; Ozdemir Dogan, 2017). Therefore, when pre-service teachers start to work as a teacher, they are insufficient in the following democratic qualities that must be shown (Chicoine, 1997; Males and Stricevic 2001):

- Systematic, regular thinking about his performance and self-evaluating how to create appropriate expectations,
- Designing and implementing the training process so as to develop respect between the students and the students and regarding students as individuals,
- Encouraging listening in class and being a role model as a good listener,
- Creating rational discussion opportunities among students and managing debate based on group dynamics and conflict resolution,
- Having competence in developing activities based on individual differences and learning styles,
- Scholarliness for the treatment of discriminatory behaviors shown in gender, race, age etc.
- Observation on all stakeholders of the education process and the rules to be observed in order to comply with the child's rights.

Besides, the studies showing that the positive effect of children's rights education on individuals is inversely proportional to age (Ozdemir Dogan, 2017) and showing that their effects are also increasing in the positive direction when the quality and effectiveness of this education increases (Campbell and Cowell, 2001; Torun, 2011) take place in the literature. These studies demonstrate that children's rights education is challenging as the individuals get older and needs to be provided with increasingly effective methods and techniques. Furthermore, it is seen that

non-experimental researches such as the level of knowledge, opinion and attitude, program and course evaluation of the adults about the rights that the children have or need to have, have been conducted in Turkey and abroad. Therefore, it is very important for teachers and tomorrow's teachers (prospectives) to train children's rights education with effective methods and techniques and to train about the special education methods for transferring this education.

The educational technology, which fill the gap between the theoretical knowledge in education and the education practices, is defined by AECT (2008) as "supporting the learning by creating, using and managing the technological process and resources and improving performance and working ethics". In this context, computers are the main means of education and instruction technology while Computer Based Instruction is the leading approach of the teaching methods.

Computer-assisted instruction (CAI), which provides for the use of multimedia materials for training purposes, improves learning performance, provides flexibility, repeatability and continuity, facilitates learning economically and systematically and affects affective situations such as motivation and attitude positively (Sahin and Yildirim, 2001; Kaya, 2017).

Computers that provide these important effects during the training process help teachers and students as a means of presentation of simulation and animation practices (Ipek, 2001; Cepni, Tas and Kose, 2006). These simulations and animation practices and materials can be used for the purpose of (a) subject learning, (b) practice and implementation, (c) learning with play, (d) experiment and laboratory practices and (e) problem solving in the education process (Demirci, 2003; Demirel, 2008). Therefore, the focus is on the link between the information gained during the design and development of simulation and animation materials and real-life information for these purposes

Simulation is an interactive tool for modeling real life situations and systems in computer environment, conducting experiments through these models and evaluating their results. Simulation is a functional material in the teaching of difficult, dangerous and costly situations to be applied in the educational process. Animation is an expression tool created through the activation of static visual presentations. Animation facilitates the learning and remembering of abstract concepts in the educational process (Rieber and Kini, 1991).

Today, computer animations, which have reached a great extent due to being the most used medium of computer technology while animations are being prepared, are used for the purpose of "creating a series of images and animated visual effects by speeding up the picture"

(Bulbul, 2009, p.10) and by applying the drawings and animations directly on the computer screen instead of paper. The impact of computer animations on learning can be explained more clearly as the increase in effectiveness through the incorporation of different sensory organs through Cone of Experience Theory and Dual Coding Theory. According to Cone of Experience Theory of Dale (1969), individuals learn about 10% by hearing and by 83% by eyesight and the ratios between acquisition and remembrance of these learners are as follows: reading 10%, hearing 20%, seeing 30%, hearing and seeing 50%. According to Paivio's (1990) Dual Coding Theory, individuals code the words visually and verbally while words spoken to their minds verbally. This coding system facilitates learning and remembering. Since multimedia content that appeals to different sensory organs such as text, pictures, video and sound, the combination of them provides easier and more permanent learning. Because of these advantages, it is seen in the literature that computer animations have started to be used intensively in the education process and many areas from elementary school to higher education such as Mathematics, Physics, Chemistry, Computer Science, Biology, Geography, Foreign Language and History. It is also seen that the participants generally expressed positive opinions about academic achievement, level of learning, duration of learning, persistence, misconceptions, attitudes, and their use in the educational process thanks to computer animations.

There are a number of researches in the literature which show that computer animations are used extensively for different levels, subjects, subjects and purposes. These researches show that computer animations are intended for a wide range of development and use, aimed at improving, correcting, and facilitating students' prior knowledge, new learning, and even misconceptions through active participation (See App.1). Concordantly, the efforts to develop computer animation are also increasing day by day. The process of computer animation development provides a more effective learning because of the need for effective, efficient and functional planning, design and implementation of all the experience, benefits and possibilities provided through use. Since, the effective use of computer animations in education depends on the requirements such as scientific (subject) competence, technological skill and cooperation (Dasdemir, 2006).

To sum up, in designing and developing computer animations appropriately, it is necessary to adapt verbal information to visual content, to decompose unnecessary information, to apply content according to teaching principles such as from simple to complex, from easy to difficult, etc. (Mayer and Anderson, 1991). This necessity requires to a detailed investigation, examination and evaluation on the subject. In this research, it is aimed to

investigate the effects of computer technology development on the attitudes and awareness of the prospective teacher who have technological skills in computer animation development on the rights of children thanks to the animation development process for children's rights. The research questions in the study carried out in line with this objective are as follows:

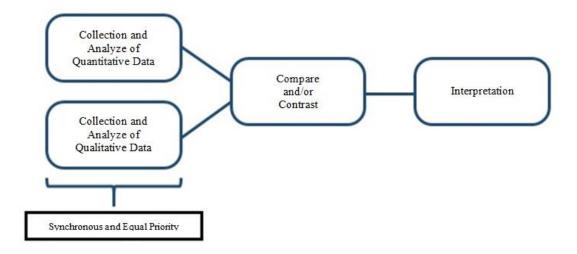
- Does the animation development process for children's rights have an impact on the awareness of children's rights in the teaching process of prospective teachers of IT?
- Does the animation development process for children's rights have an impact on the attitudes of children's rights in the teaching process of prospective teachers of IT?
- What are the opinions and recommendations of prospective teachers of IT on children's rights, the enforcement of rights and the training of rights?

#### 2. Method

#### 2.1. The Approach and Design of the Research

This research, which examines the effects of the animation development process on the rights of the children on the attitudes and awareness of the prospective teachers of Information Technologies, was planned and conducted in accordance with the mixed research approach in which quantitative and qualitative methods are used together. Mixed research method which is defined as the process of combining quantitative and qualitative methods and approaches in one or more successive studies and combining the obtained data (Creswell, 2013), takes the strengths of the two methods and completes the weaknesses of each other and allows for more effective and comprehensive research (Creswell and Plano Clark, 2007). In other words, the mixed method, which is used to increase the generalizability of the results, to obtain clearer and stronger evidence, avoids the problems arising from the shortcomings of a single approach and gives the research more multiplism, versatility and balancing properties (Johnson and Onwuegbuzie, 2004; Firat, Yurdakul and Ersoy, 2014). When the literature is examined, the mixed research approach seems to be handled differently by many researchers (Creswell, 2013; Morse, 2003; Johnson and Onwuegbuzie, 2004; Leech and Onwuegbuzie, 2009). However, it seems that the bases on application are the same despite being considered and named in different forms. For example, the collection of quantitative and qualitative data in the research process as independent and equal with each other is called "QUALITATIVE + QUANTITATIVE" by Morse (2003); "Synchronous, Equal Position QUALITATIVE + QUANTITATIVE " by Johnson and Onwuegbuzie (2004); "Totally Mixed Simultaneous Equal Position Design" by Leech and

Onwuegbuzie (2009). The typology used in this research is called "Convergent Parallel Design" by Creswell (2013), who owns the typology. The convergent parallel design is the process of comparing, correlating and interpreting quantitative and qualitative data simultaneously and independently collected and analyzed (Creswell and Plano Clark, 2014). The research design used in the realization of the study is shown in Figure 1.



**Figure 1.** Research Design of the Study

As seen in Figure 1; this pattern, which is realized with equal and equal qualitative and qualitative dimension, is used to elaborate the findings, to reveal the similarities and differences between them, and to elaborate the situation from different perspectives. In this regard, data of quantitative dimension, which is one of the two dimensions of the study, was collected by pre-test and post-test experimental design without control group. The pre-test/post-test experimental design without control group is a design that aims to compare the results of two separate measurement processes (pre-test and post-test) performed before and after the experimental process with the same measuring instrument (Buyukozturk, Cakmak, Akgun, Karadeniz and Demirel, 2011). This pattern, which is a more effective and useful interpretation than the post-test pattern without control group (Kaptan, 1998), is widely preferred when examining the effects of different teaching methods or teaching elements in educational research (Cohen, Manion, and Morrison, 2013; McMillan and Schumacher, 2014). For this purpose, the research process performed by using the pre-test post-test experimental design without control group is shown in Table 1.



**Table 1.**The Pre-Test Post-Test Experimental Design without Control Group

Group	Pre Test	<b>Experimental Process</b>	Post Test
G	CRAS	Computer Animation Development Process	CRAS
	SACRTP	Computer Ammation Development Process	SACRTP

CRAS: Children's Rights Attitude Scale

SACRTP: Scale of Awareness of Children's Rights in Teaching Process

In the collection of qualitative data, the basic interpretive qualitative research design was used. This design of the qualitative research designs, which is a method that provides a thorough and thorough investigation of a problem or situation in terms of similarities and differences (Creswell, 2013; Patton, 2014), aims to explain how individuals understand the experiences they experience and to make sense of what they mean (Merriam, 2013). In other words, this pattern is based on the participants' appraisal of their research experience, in-depth reflection of their own interpretation and appropriate suggestion of context.

#### 2.2. Participants of the Study

The study group consists of 65 students in the Department of Computer and Instructional Technology Education at Kirikkale University Faculty of Education in the spring semester of 2016-2017 academic years. Participants, who take a course called Graphics and Animation in Education in the spring semester of 2016-2017 academic year, have not taken any child rights training before and have not been participated in a different research or project work on children's rights. In determining the research group, the convenience sampling method, which is a method used when the entire universe is impossible to reach and the sample is difficult to design and reach, (Monette, Sullivan and De Jong, 1990) has been adopted. The method is often preferred as it provides practicality and affordability to the researchers (Monette et al., 1990). Accordingly, the reason for the selection of the research group from the students in the relevant department is that they are easily accessible for the researchers and that they have gained knowledge and experience about the use of technology in material development and education within the scope of the many lessons students have taken before the research process.

However, researchers have identified certain criteria for the study group to be selected from within this group. In this regard, the 'criterion sampling' method was used in the study. The 'criterion sampling' method has been stated by Buyukozturk, Cakmak, Akgun, Karadeniz and Demirel (2011) as a method to be used by the observation units for the formation of persons,

events, objects or situations with certain qualities. As a result of the evaluation of the criteria, some students were not included in the study group; the students who take the course in the previous semesters and repeat it by taking it in the specified period (n=9, %13,85), the students who take the course regularly but do not attend regularly (n=6, %9,23) and the students who do not develop computer animation for the determined subject despite regular attendance (n=2, %3,08). As a result, the study was completed with 48 (73.85%) students. According to the determined criteria, of the total 48 students included in the research process, 52% (n= 25) were female participants and 48% (n= 23) were male participants.

#### 2.3. The Process of the Computer Animation Development

In the material development process, Seels and Glasgow Instructional Design Model, which is identified among product-oriented instructional design models by Gustafson and Branch (2002) is used as base. Instructional design is an appropriate teaching method that provides a systematic path map that guides teachers by providing access to different teaching outputs through analysis, design, development, implementation and evaluation of processes and resources in order to facilitate learning and/or improve performance in this way (Reigeluth, 1999; Reiser, 2001). Therefore, instructional design is quite crucial to enhancing the effectiveness and efficiency of teaching and the quality and quantity of learning outcomes in a learning environment where individuals with different cognitive, emotional or mental characteristics are involved (Akkoyunlu, Altun and Soylu, 2008). However, designing a material effectively depends on determining the most appropriate instructional design model (Andrews and Goodson, 1980). This model in the semi-linear feature, which allows training applications for all levels, from primary school to tertiary education, and which can be determined according to the learning needs (usually covering a time period of a few hours or a few days) (Keles, Erumit, Ozkale and Aksoy, 2016), was proposed by Barbara Seels and Zita Glasgow in 1998. With this model, it is aimed to develop materials which can be used individually and easily by students in accordance with different methods and environments instead of products used in classroom and teacher guidance (Seels and Glasgow, 1998). In summary, the process of this model aiming to create teaching packages to increase productivity and provide more effective and permanent learning (Keles et al., 2016) is seen in Figure 2.

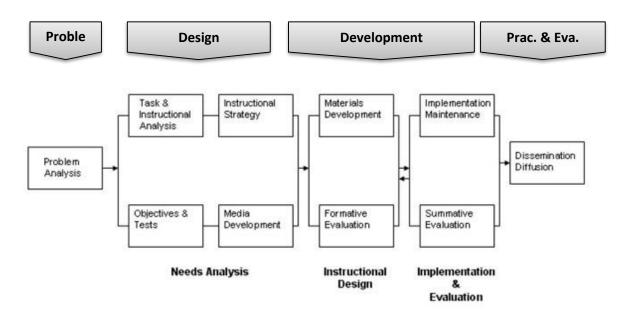


Figure 2. Instructional Design Model of Seels and Glasgow

When examined in Figure 2, it appears that this model is not linear at the lower stages although it is linear at the base stages. This allows sustained evaluation and improvement in the basic stages such as design and development (Bergman and Moore, 1990). Therefore, Instructional Design Model of Seels and Glasgow provides the development of new materials with a intermediate instructional design expertise in the design process and the competence of the intermediate level expertise is due to the ability to start the process of developing and setting targets and criteria for the material development process, and the constantly ongoing adjustment and renewal possibilities (Keles et al., 2016).

The problem analysis, which is the first stage of this model, consists of sub-steps such as information gathering, revealing differences between ideal and actual situation, performance analysis, determination of sources and limitations, determination of student characteristics, determination of priority and targets and determination of problem situation (Seels and Glasgow, 1998). In the course of the problem analysis carried out in this research, firstly, an academician, who has a thesis and essay on child rights and children's rights education, prepares the contents that should be in the material for children's rights to create scenario cards suitable for the targeted level. (see App2).

In the phase of the design, a program related to tools, materials and environment information, goals and criteria, teaching strategy was developed by the academicians of the Department of Computer Education and Instructional Technology (CEIT). Subsequently, the participants were given six weeks training of animation development and design principles.

Animation development and design principles training consists of a hands-on training on the use of the Adobe Flash program, a vectorial graphics software, as well as a theoretical training on visual design principles.

The hands-on training on the use of graphics software involves the use, drawing and animation of interface components (workspace, timeline, panellery, tools, library) and the design elements (graphics, movie clips, buttons, sound etc.). The theoretical education on visual design principles was carried out with presenting the information on usage of graphics, sounds, forms and texts in terms of features such as integrity, balance, emphasis, proximity, alignment and placement and presentation of examples in different specifications.

In the development phase, participants did some research on children's rights under the acquisition / subject area in the distributed scenario cards and prepared a preliminary report. Feedback was given to the preliminary reports by the researcher who worked in the field of children's rights and necessary corrections and improvements were made until reports became available and useable. Participants, which got approval for the content, moved to the stage of designing the visual content that they would use in the animation and preparing the scenario flow and divided the content into meaningful pieces in the visual design to be used. Feedback was provided by the academicians of the department of CEIT about the presentation of visual design and contents and necessary corrections and improvements were made. After completing the visual design, the participants stepped into the process of mapping the audiovisual elements. In this phase, all the characters in the design were voiced one by one in conformity withage and sex with content and matched with the visual flow on the timeline of the animations. The voiced animations were evaluated by the research team for the last time and feedback was provided to the participants for the final improvement of the animations. The performed process of the design and development is summarized in Table 2 and visualized in Appendix 3.

**Table 2.**The Process of Computer Animation Development

	1. Step (6	2. Step (6 Weeks)	
Process	Training of Animation Design Pri	•	Material Development Process
Sub Process	- Setup - Interface components - Design elements - Drawing and motion/tween process	- Use of graphics, sounds, forms and texts according to certain characteristics	- Material Development - Formative Evaluation (Content, Visual, Audio, Instructional) - Improvements

In the implementation and evaluation phase, the developed material was assessed by one of the CEIT department academicians, a domain expert (academician in the Primary School Teaching with thesis and essay on children's rights) and a student himself who developed computer animation (self-evaluation). Evaluation was carried out in accordance with the 15 items under four main headings: (a) instructional eligibility, (b) conformity with the curriculum, (c) formal conformity and (d) technical eligibility (Guzeller and Korkmaz, 2007; Erumit, 2013).

#### 2.4. The Process of Development of Scenarios and Dialogue Texts on Children's Rights

In this section, the details about scenario and dialogue creation, process monitoring and feedback-correcting studies in animation works designed by CEIT students for children's rights education in the research process is included.

As a first step in this respect, the four main scenarios in which different rights of the child (right to education, right to work, right to growing, etc.) are addressed for the children's rights animations are designed by researchers. The scenario contents developed by the researchers in this process were evaluated by two different independent field experts and were revised according to the evaluations obtained from these experts. The corresponding scenario content forms, finalized as content, are distributed randomly to the CEIT students who will carry out this animation design. In this direction, students are asked to design a dialogue process within a certain period of time in accordance with the scenario content. In this process, the students have individually showed approaches to learning, conducting research-examination and using first-hand resource on the issue of children's rights. In this context, the dialogue design forms on the children's rights prepared by the researchers were given to the students. The dialogue texts prepared by the students in the context of the scenario content given to them were first examined in detail by the field expert researcher and then the students were presented with feedbacks in this direction. At this stage, students were asked to make arrangements in the dialogue they have designed for children's rights scenarios in accordance with the researcher's advice/feedback. At the next stage, the dialogue texts presented by the students to the researcher in their final form were examined in detail by the researchers and represented to the students with the final correction proposal. At this point, the last correction suggestion was made by the students and the dialogue texts related to the scenario were finalized. The last correction suggestion at this point was handled by the students and the dialogue texts related to the scenario were finalized.

Following the preparation of the dialogues for the content of the children's rights scenario, the next step was the introduction of images and voices to the animation drafts designed by the students. At this stage, the researcher who is expert in children's rights and students has planned joint working days. During these working hours, the researchers examined the animations both in terms of audio-visual-content adaptation and in terms of the productivity aspects of the child rights education process. Individual and face-to-face interviews with each student were conducted by the researcher and the student was guided by the researcher. On the other hand, the animations were continually reviewed by the other field expert researcher in terms of their technical dimensions and the necessary movements were carried out individually with the students in this direction.

#### 2.5. Data Collection Tools

In this research, designed in accordance with the mixed research approach, quantitative data were obtained "Children's Rights Attitude Scale" developed by Karaman Kepenekci (2006) and "Scale of Awareness of Children's Rights in Teaching Process" developed by Kor (2013). The qualitative data of the research was obtained by the "Opinion Form on Children's Rights" developed by the researchers and containing open-ended questions.

Children's Rights Attitude Scale (CRAS), the scale is a five-point Likert (strongly agree [5], agree [4], don't know [3], disagree [2] strongly disagree [1]) type and consists of a total of 22 items, 19 of which are positive and three of which are negative. The lowest score to be taken from the scale consisting of the items related to the vital, developmental, protective and participation rights of children is 22 and the highest score is 110. There is a linear relationship between the score and the positive attitude. CRAS was developed by Karaman Kepenekci (2006) as one factor and the internal consistency factor (Cronbach Alpha) was determined as .85. The scale used in this study, in which the attitudes and awareness of prospective teachers of IT towards children's rights were examined, the reliability coefficient was set at .87; therefore, this result suggests that the scale is appropriate for use in research (Buyukozturk, 2010).

Scale of Awareness of Children's Rights in Teaching Process (SACRTP), the scale consists of 25 items of the five-point Likert type (strongly agree [5], agree [4], don't know [3], disagree [2] strongly disagree [1]). The lowest score to be taken from the scale that provides to obtain the opinion on the awareness of children's rights is 25 and the highest score is 125, and there is a linear relationship between the score obtained and the awareness. SACRTP was developed as a one-factor scale within the scope of a research for teachers conducted by Kor (2013) and the

internal consistency factor (Cronbach Alpha) was determined as .844. The scale used in this study, in which the attitudes and awareness of IT prospective teachers towards children's rights were examined, the reliability coefficient was set at .91; therefore, this result suggests that the scale is appropriate for use in research (Buyukozturk, 2010).

Open-ended Questionnaire Form on Children's Rights (OQFCR), in this research, which aims to elaborate the views of prospective teachers of IT on the issue of children's rights, the data of the main interpretive qualitative study was gathered with the open-ended questionnaire form within the scope of the research design. Accordingly, participants were asked to respond to the questionnaire form with open-ended questions, which the researcher was expected to offer the opportunity for people to identify their perspective without any predefined categorical limitation Patton (2014). This form was created by the researchers as a result of the literature review and finalized by taking the expert opinion from the academicians of CEIT and Primary School Teaching Departments. In order to investigate the usefulness of the developed form, pilot study was carried out with five out of nine students who repeatedly took the course altogether and were not included in the study group during the sixth week of the experimental period. Textual corrections were made to increase the clarity of the questions on the form and the ordering of the questions was modified and made ready for use during the last week of the experimental period.

#### 2.6. Collection and Analysis of Data

The quantitative data of the study were obtained with the CRAS and SACRTP as printed form by the study group before and after the experimental period. The qualitative data of the research was collected through the application of the OQFCR as printed form during the last week of the computer animation development process. The process is illustrated in Table 3.

**Table 3.**Collection of Data

Dimension	Pre-Test		<b>Experimental Process</b>									Post- Test		
			Training of Animation Development and Design Principles (6 Weeks)					Material Development Process (6 Weeks)						
Qualitative		1	2	3	4	5	OQFCR Pilot	1	2	3	4	5	OQFCR	
Quantitative	CRAS SACRTP													CRAS SACRTP

In the course of the analysis of the quantitative data obtained, the data on the printed forms were first transferred to the computer environment and then analyzed by using the SPSS

package program. The researchers firstly calculated the reliability co-efficient to examine the usability of the measurement tools used and Cronbach Alpha values were found to be .87 and .91 respectively. After the obtained coefficients were found satisfactory, quantitative data were analyzed in terms of normal distribution (descriptive statistics such as arithmetic mean, standard deviation, median and mode; Shapiro-Wilk test with kurtosis and skewness coefficients [n <50]). As a result, it was determined that CRAS data were normal distribution and SACRTP data were not normal distribution. In consideration of these findings, it was decided to use the "Wilcoxon Marked Rank Test" in the analysis of the awareness pre-test and post-test data while the "One Sample T-test" of the parametric testswas used in the analysis of attitude pre-test a post-test data. Content analysis was used to analyze the qualitative data. After the quantitative and qualitative findings collected were analyzed independently of each other; the similarities, differences and relations between the results of both were tried to be revealed. Content analysis, serving to define and explain worldly concepts, is defined as coded common reasoning and refined paths by Robson (2015). Berg (1998) stated that content analysis is the process in which the negotiations, field notes studied, unobtrusive data, or information generally deemed unsuitable for analytical purposes is transferred systematically comparable. In order to ensure the validity and reliability of the data analysis process, it was necessary to calculate the opinion of the coders. For this purpose, the 'concensus' calculation formula developed by Miles and Huberman (2015) was utilized. The rate of consensus among the coders of coding, evaluation and revision procedures performed by Three Academics Together With The Researchers Was Determined As 88%.

#### 3. Findings

The findings obtained within the scope of the research have been presented in order as qualitative and quantitative findings and then the differences, similarity or relationship between the results have been discussed.

#### 3.1. Attitudes towards Children's Rights

A single sample T-test of the parametric tests was applied to determine whether there is a significant difference between the pre-test point averages and the post-test point averages regarding the attitude scale towards the children's rights of the study group. Test results and descriptive statistics are shown in Table 4.

**Table 4.**T-Test Results on the Difference of Pretest and Posttest Scores of the Working Group

	N	x	SS	sd	t	р
Pretest	47	61,77	7,40	45	-2,181	.000*
Posttest	47	72,37	3,14			

<sup>\* (</sup>p<0.05)

When Table 4 was examined, pre-attitude point average of the study group was determined as 61.77, while post-attitude point average was 72.37. A single sample T-test was applied to test whether the difference between the attitude point averages obtained is meaningful and it was determined that he difference is significant [t(45)=-5,181, p<0.05]. In other words, the quantitative findings from the working group show that experience in the field of children's rights in the computer animation development process is influential on IT prospective teachers' attitudes towards children's rights.

#### 3.2. Awareness of Children's Rights in the Education Process

The Wilcoxon Signed Ranks test of non-parametric tests was applied to examine whether there is a significant difference between the pre-test averages and the post-test averages of the children's rights awareness scale during the teaching process of the study group. Test results and descriptive statistics are shown in Table 5.

**Table 5.**The Results of Wilcoxon Marked Rank Test for the Difference between Pre-Test and Post-Test Scores of the Working Group

	N	Average of Rank	<b>Total Rank</b>	Z	р
NegativeRank	0				
<b>Positive Rank</b>	17	14,20	241,40	-2,380	.000
Egual	0				

According to Table 5, the difference determined according to the result of Wilcoxon Marked Rank Test made to determine whether the difference between pre-test and post-test scores of children's rights awareness in the teaching process of prospective teachers of IT in the study group is significant is found statistically significant. [z=-2,380; p<0,05]. The fact that the difference scores are in favor of positive rankings suggests that the effect of the computer animation development process on IT prospective teachers' awareness of children's rights is significant.

## 3.3. Opinions of Prospective Teachers of IT Regarding the Children Rights and its Education

In the research process, qualitative data were obtained through the open-ended questionnaire form regarding the determination of the participants' opinions on children's rights. The obtained data are presented in detail in the following section, supplemented by the direct expression of the participants. The research qualitative data obtained in this direction are presented in detail in the following category headings, along with the direct expressions of the participants. With an ethical approach, the participants' direct expressions were identified using code names (P4, P10, P...)

**Table 6.**Category Headings Created Based on the Qualitative Findings of the Research

#### **Category Headings**

- 1. Opinions about children's rights
- 2. Opinions on the rights which children have no knowledge of or cannot use them for a variety of reasons and the reasons of this subject
- 3. Opinions on the benefits of the recognition and implementation of children's rights
- **4.** Opinions on the necessity of children's rights for children
- **5.** Opinions on the target mass of children's rights education and possible problems and suggestions for solution in this training process
- 6. Opinions on how children's rights can be taught and who will be charged with it
- **7.** Precedents on child rights violations in the direction of individual experiences and social life observations
- **8.** Proposals for the development of children's rights

When the participants' opinions on children's rights are examined, it seen that the participants have identified the children's rights as going to school, expressing their own thoughts, living, using health services, participating in social activities, learning, playing, sheltering, not being forced labor, knowing their rights and defending them, travelling and enjoyment, protection violence, abuse and from exploitation, being healthy, growing, ability to decide, equality, love, growth adequate nutrition, dressing having a name and citizenship, special education and caring. At this point, it can be said that the participants have a certain level of perception and awareness of the rights of children. Here are some direct participants' expressions as below:

P3; "I think children have the right to nutrition, play, protection, rest and not being forced to work...", P6; "They have the rights to express their thoughts, to benefit from health services, education and to have fun...", P10; "Children have the right to life, to have a name and citizenship, to nourish, to grow and develop, to know and defend their rights, to love, to prevent

abuse and to shelter...", P8; "The right to grow with love, the right to life, the right to be healthy and the right to growth with love...".

When the participants' opinions on the rights which children have no knowledge of or cannot use them for a variety of reasons and the reasons of this subject are examined; it is revealed that the participant expressed that the right to participate in social activities, to express thoughts, not to be employed at a young age, to protection from abuse, psychological and physical violence, to respect, to respect for their own opinions, to equality, to access to education, to choose and decide are violated for various reasons or that children do not have adequate awareness of these rights. The participant state the reasons as the financial impossibilities of the families, not paying attention to the issue by families, the lack of awareness of children's rights in society, the lack of adequate training in this subject, passive movements at the point of defending people's rights, the oppressive family attitudes, the fact that children are not exactly seen as an individual, not showing necessary interest to children and traditionalist society structure. Here are some direct participants' expressions as below:

P2; "I think children can not fully use their right to express their thoughts ... Because I know that the parents have silenced the kids in this regard and have not not feel the need to get their opinion on a certain topic...", P9; "Despite the fact that children have the right to decide and choose, unfortunately I do not think they can use this right... Because families do not think children can make corroct decisions, and they do not see them as an individual... I mean, the family do not give them any choice ...", P6; "I do not think that all children can use the right of access to education... Especially families with financial difficulties do not send their children to the school or girls are not sent to the school...", P1; "Families are often prevented children from participating in social activities and spending time with their peers... A child who does not know he has these rights keeps on living this way...".

When the participants' opinions on the benefits of the recognition and implementation of children's rights are examined; it is emphasized that this can make the childrens be more self-reliant, have a sense of responsibility, be enthusiastic about their freedom, have a high level of reasoning ability, contribute to the development of their country with their ideas, be sensitive to the rights of others, be more psychologically healthy, have access to better living standards, have high self-esteem, be able to protect themselves from abuse and violence, be able to make decisions about their own lives and to apply them. Accordingly, it has been stated that equality of opportunity can be achieved in social life, the numbers of child workers will decrease, better

living standards can be provided for children, rights violations will be reductioned and the awareness of children's rights will increase. Here are some direct participants' expressions as below:

P7; "Children can better defend themselves against the external world. Education and equal opportunities for all children are ensured and they can lead a better life...", P6; "...When children know that they have the right to freedom of thought, they can contribute to the development of society and the country by freely expressing the ideas they produce...", P3; "The child who are aware of their own rights becomes a high level of self-confidence and can defend a child's rights when necessary...", P8; "In the direction of their own rights, children can direct their lives so that they can study what they want and choose the profession they want...", P5; "Children's self-esteem and self-esteem increase. They continue to live as a healthier individual..."

When the participants' opinions on the necessity of children's rights for children are examined; it is observed that participants expressed the necessity of children's rights for have a more relaxed, beautiful, reliable and productive life, being able to live their lives as a more conscious and healthy individual about their rights, being able to use their rights and being happy individuals, to express, protect and defend their rights when necessary. It has been stated by the participants that these rights are needed in the areas: These areas are the schools as a place where children spend most of their time; the environments where children's views are not taken into consideration; family environment; the times spent with friends, the whole area of the life and an environment away from the family. Here are some direct participants' expressions as below:

P1; "I think that children's rights are important and very necessary for children because children who know and use their rights will be happier and more conscious...", P10; "It is necessary for children to have rights because they are individuals. It is necessary for them to be aware of their rights and be able to defend them...", P6; "Every child, like every human being, needs to live a beautiful future. Therefore, every child can be trained as a well-equipped and healthy individual with children's rights...", P8; "Children's rights are essential for a more qualified and healthy life for children...".

When the participants' opinions on the target mass of children's rights education and possible problems and suggestions for solution in this training process are examined; it is showed up that the participants pointed out that the education of children's rights should

be provided for firstly to the child's nearest parent, subsequently to children themselves, then to all other educators and educational staff who will support the child's learning, to all other members of the community in which the children will lead a life and that it is a necessity that these elements must have an awareness of children's rights. According to the participants, the problems that can be encountered in these training processes and suggestions for solutions can be stated as follows: The families' perception about a child may be different, in this context they may not fully accept children's rights, the families can act with traditionalist views in this regard, the parents can misconceive the children rights, the educators can not adequately address these rights, the families can misinterpret these rights in their own way and implement them in this way, these rights may not be respected by the society, these rights can be overused and these rights can be abused by misinterpreting. With regard to these possible problems, it is important as solutions that qualified children's rights training should be provided to families, educators and children with effective tools, the social awareness can be raised in this subject, the children can be encouraged to use their rights, the state can provide financial assistance to the children in this context, some seminars on the ways and extent of use of these rights should be provided to families and educators and empathy can be established with children to make them feel respected. Here are some direct participants' expressions as below:

P8; "I think that children's rights education firstly should be given to parents. Then these rights should be taught to the children themselves ... However, these rights can be diverted by families and children in different ways... This situation needs to be controlled...", P2; "Up to me, all members of the public should be raised on aware of children's rights... On this matter, some problems arising from family structure may be experienced. So if parents have a traditionalist view, they may not accept the children rights...", P10; "The rights on this subject should be taught to educators, families and children themselves... At this point, some problems may emerge from the perspective of the family to the child. It should not be forgotten that children should also be seen as an individual...", P5; "Families, teachers and children must be trained on this subject... The major problems in this process would be related to family and school... So, families should be aware of this... Teachers may not want to talk about these rights... To prevent this, children's rights education should be aware of this issue... In this process, parents can misconceive the children rights according to their own views and can be in the wrong way... So, they can violate the children rights... In society, the childrens' rights can be ignored... Therefore,

I think that society should be made aware of this issue... In my opinion, the children should be encouraged to use children's rights...".

When the participants' opinions on how children's rights can be taught and who will be charged with it are examined; the participants expressed that the children's rights education should be started in the family, the schools should be able to carry out these trainings through the teachers, if necessary the families and educators firstly should be educated about the rights of the children, the state has great responsibility about children's rights, these trainings can be presented via media elements (conferences, interviews, etc.), awareness can be raised by drawing attention to the rights of children with visual aids (banners, posters, etc.), the stories, educational animations, videos and cartoons can be utilized in the children's rights education, children's rights can be improved by providing trainings to child-related institutions, negotiations can be held with the children on this subject and children can be provided to exercie the rights to internalize these rights. Here are some direct participants' expressions as below:

P3; "Interviews and conferences on this subject can be displayed on TV channels... Posters or banners may be prepared to increase social awareness on children's rights...", P8; "Educational cartoons, animations about children's rights can be watched and the traning can be realized...", P5; "In my opinion, parents and teachers firstly should be trained on this subject... Up to me, it is possible to teach these rights by letting the children to use children's rights in practice...", P10; "The animations and stories can be utilized for teaching these rights to children... In my opinion, the foremost responsibility in this regard is on teachers... Since, all the families are not conscious on this subject...", P7; "...It can be possible to raise awareness of children's rights through brochures or television channels... But I think also that the direct contact of teachers and parents with children will be effective on this issue...", P6; "These rights should be explained to the employees of the institution concerned with the child and their families... In this framework, children's rights education should be given within a certain program...".

When the participants' precedents on child rights violations in the direction of individual experiences and social life observations are examined; participant expressed the children rights violations like that childrens are forced child labour at young ages, the students can not express their opinions easily in lessons, the children are being sexually exploited and exposed to psychological and physical violence, their opinions are not taken into consideration in the school

and the family environment, children are used for commercial purposes, the girls and children with financial difficulties could not receive education and go to the school, the children are forced to disagreeably marriage and the teachers exibit frightening attitudes towards children. Here are some direct participants' expressions as below:

P10; "For example, the father of a schoolgirl in our class had stopped her relationship with the school... That why, he restricted her right to education... On the other hand, young girls are forced to be married with older people than themselves...", P8; "We watched news that Syrian children died because they were not taken to hospitals... The rights of these children to live and to access health care services were set at naught...", P5; "The most serious observation in this regard is that girls forced to marry by stopping their schools... The right to a good living is also taken away as education rights are prohibited...", P4; "Since the financial situation of their parents is insufficient, there are many children who go to the school and work somewhere... I meet many children who sell water in the summer, clean the car window and sell handkerchiefs on the roadsidese... These children have the right not to be forced for labour... On this point, the state should take on a desk...", P2; "The obvious examples are the children living on the street... I see many children living on the street where we live... These children are deprived of their right to shelter, to go to school, adequate nutrition and many other rights...".

When the participants' proposals for the development of children's rights are examined; some proposals are suggested by the participant like that it is necessary for the people in society to be conscious of this subject through various trainings and conferences, the legal sanctions should be put into force immediately in case of infringement of child rights, the laws should not be flexible in terms of the elements causing these violations, the children's rights should be taught in amusing forms like stories, the families need to be conscious of this subject and to express the childrens' rights to their children, the first hand courses on children's rights should be provided to the childrenin schools, subject experts in the field should conduct research and trainings on these issues in schools, non-governmental organization should be supported int terms of their works in this subject, children should be encouraged and supported to use their rights, the parents and teachers should exhibit behaviors that will set a rol model for children in this regard, the parents, teachers and school administrators should be provided training on children's rights. Here are some direct participants' expressions as below:

P6; "I think that the endeavours of non-governmental organizations should be supported in this regard...", P10; "In my opinion, compulsory courses on children's rights should

be set in curriculum in schools. Accordingly, trainees should be trained along with students...", P2; "I think that it should be aimed to raise awareness of society on children's rights... On this point, both the state and the educators should take on a desk... In case of abuse of child rights, high-deterrence laws can be imposed immediately... For example, the family of the child forced labour and the place of business must be severely punished...", P8; "The course abour children's rights should be given at all levels. At this point, the educators should take on a desk... Children's rights should be taught to children with effective methods, such as stories and films and also how they will defend their rights should be demonstrated through case studies...", P9; "Subject matter expert should go to schools in this regard and provide training on children's rights..."

#### 4. Discussion and Conclusion

In this research, it is aimed to determine the effect of the animation development process for the education of children's rights on the attitudes and awareness of prospective teachers of IT. At the end of the research, the quantitative and qualitative research data were analyzed by using statistical analysis and qualitative data analysis techniques. Based on the research findings; detailed discussions, conclusions, and proposed recommendations are given in detail in the following section.

When the quantitative data obtained from the research were examined, it was seen that the process of computer animation development for children's rights education positively affected the attitudes of participant of prospective teachers towards children's rights. Yasar Ekici (2014) stated that as a result of her own the research; the attitudes of prospective teachers towards children's rights are influenced by the undergraduate programs in which prospective teachers are educated or graduated. In conformity with this research finding, it can be shown that the attitudes of participant of prospective teachers towards children's rights are influenced positively by the studies carried out in the course of 'graphic and animation in education' course. According to Yamac (2015), the use of digital storytelling has been seen as a positive application in the formation of communities which learn that interaction areas are effective in the classroom. In this regard, it can be readily said that both the process of preparing educational animations about child rights and the use of information technologies in the process of children's rights education will represent an important approach in developing perception and awareness towards the subject.

As another research finding that was achieved by analyzing the research quantitative data, it was seen that the participant of prospective teachers had positive scores for the

difference scores regarding the awareness statuses on children's rights. In this context, it is concluded that the process of educational computer animation development for children's rights education has a meaningful effect on the awareness of prospective teachers towards children's rights. Karaman Kepenekci and Baydik (2009) stated that as a result of their research, it is necessary to put lessons on children's rights in all teacher education programs and/or that the content of the courses in undergraduate programs should be enriched to include children's rights issue. Likewise, Turkoglu and Gultekin Akduman (2013) pointed out that a lesson on children's rights should be included in undergraduate curricula for specific occupations. At this point, it is seen that the parallelism between the results of the other research mentioned above and the result of the research carried out indicate a conclusive paradigm in terms of supporting prosptective teachers' awareness on child rights.

In the study, the qualitative data collected to determine the opinions of prospective teachers in the context of children's rights and child rights education were handled in eight different categories; "opinions about children's rights", "opinions on the rights which children have no knowledge of or cannot use them for a variety of reasons and the reasons of this", "opinions on the benefits of the recognition and implementation of children's rights", "opinions on the necessity of children's rights for children", "opinions on the target mass of children's rights education and possible problems and suggestions for solution in this training process", "opinions on how children's rights can be taught and who will be charged with it", "precedents on child rights violations in the direction of individual experiences and social life observations" and "proposals for the development of children's rights".

When the research findings under the relevant category headings are examined, it has been observed that prospective teachers participating in the research have a certain perception and awareness about children's rights. It has been seen in the research that the benefits of recognizing and implementing children's rights are expressed in the framework of equality in societal life, the decline of child workers, the possibility of having better life opportunities for children, increasing respect for rights and raising awareness of children's rights. At this point, it can be said that the process of educational animation development, which has been carried out with the research, positively contributes to the attitudes of participant candidates towards teaching and recognizing the children's rights. At this point, it is thought that computer technologies can contribute to the development of perception and awareness of children's rights issues with the components involved in the preparation and implementation of children's rights education. Dundar and Hareket (2017) emphasized the importance of using technology



and information elements for the education of children's rights and the related researches which would be conducted. As another result of the same research, it has been shown that the children will need children's rights most often in schools, in family environment and when they are with their friends according to the participants of the reserach. Hareket and Gulhan (2017) pointed out that teachers have a critical role in the development of children's awareness and perceptions of their rights. At this point, it can be said that the findings of the research of Hareket and Gulhan (20179 and the findings of this research conducted are in contextual parallelism. As another important result of the research,, it has been seen that participants expressed the importance and necessity of providing training of children's rights education primarily to parents, children themselves, educators, other employees in educational institutions and all community members. Ersoy (2012) stated that children should be taught for their rights at school; educators should be informed about the rights of children and teaching these rights; and the professional competence in this subject should be developed. At this point, it can be said that the determination of the research of Ersoy (2012) and the findings of this research conducted are in contextual parallelism again. As another result of the research, participants expressed that the educational events, media elements, posters, banners, etc. visual media, story, educational animation, video and cartoons can be usedin the process of training children's rights and that it may be possible for children to internalize these rights by ensuring that children are exercising their rights. Hareket and Yel (2017) stated that it must be kept in mind that teaching children their rights with teaching activities and the children's perception development should be supported. At this point, the participant of the prospective teachers pointed out that based on the similarity of the findings of the research with the prospective teachers, it is a necessity to present children's rights education with educational tools suitable for different levels of development of children. Furthermore, participant expressed the children rights violations which they have observed or experienced in social life as follow: Forced child labour, the fact that the students can not express their opinions easily and their opinions are not taken into consideration in the family environment, the sexual abuse, psychological and physical violence, the fact that the girls and children with financial difficulties can not receive education, the inappropriate forced marriage of children and the frightening attitudes of teachers towards children. The following conclusion can be drawn from the expressions of participant obtained at this point: Participants were more likely to be influenced by their experience in designing animations and their selective sensitivity to child rights in the preparation process. It is stated by Ucus (2009) that school administrators and teachers do not have adequate knowledge of

children's rights and have not implemented practices that can be directly addressed in terms of children's rights. In the same direction, it was emphasized by Simsek (2016) that the formation of awareness and perception development regarding children's rights should be supported and that all the individuals in social life should be aware of violations of children's rights and the negative effects of these violations on children and society. In this context, it can be said that the participants' experiences and observations on child rights violations, as well as their opinions and suggestions for the abolition of these violations, are in the same context with the findings and determinations suggested in the above mentioned researches. At this point, it is observed that the process of preparing educational animations for children's rights education contributes positively to the development of awareness of the prospective teachers on child rights violations in social life and awareness of the measures that can be taken in this respect.

When the research findings are evaluated in the general framework, it is concluded that the educational animation preparation process for children's rights education has positively affect the development of the attitudes and awareness of the prospective teachers regarding children's rights in the information technology department. Within this context, it is foreseen that the awareness and sensation about their rights of the children who will participate in children's rights education at the relevant level of education will be supported in a qualified manner through the educational processes in which the animations prepared in line with the related subject are used. Accordingly, it is suggested that it is quitely important and necessary for the students in all higher education programs, especially the education faculties, to be educated with effective tools in the field of children's rights and to be involved in the activities they can carry out similar preparatory processes in their own branches. Furthermore, it is thought that there are appropriate and befitting approaches that can be put forward in this regard as follow: The formation of lessons on teaching children's rights and children's rights education in curricula belonging to all programs in education faculties, interdisciplinary studies in the field of children's rights, encouraging students to undertake comprehensive projects for the preparation and implementation of effective instruments that can be used in children's rights education, such as educational animation design. Within this regard, it is expected that it may be possible to achieve a social life in which children's rights are known, these rights are respected and their awareness of this issue is high in the context of these suggestions.

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**Appendix 1.**Some Researches and Results from Different Fields on the Use of Animations in the Educational Process

Researcher (Year)*	Target Group	Research Result
Burke, Greenbowe ve Windschitl (1998)	HSS	Elimination of the misconception
Handal, Leiner, Gonzalez ve Rogel (1999)	HSS	Conceptual understanding of the periodic table by students
On ve Hong (2000)	SSS	Increasing academic achievement on Acid-Base topics
Ebeneler (2001)	HSS	Conceptual understanding of the subject of "solution" by students
Arıcı ve Dalkılıc (2006)	HES	Enhanced learning success in search algorithm context
Dasdemir (2006)	SSS	Increasing success and persistence of the subject of cell division
Kelle ve Jones (2007)	HES	Increasing academic achievement on the subject of "dissolution"
Sanger, Cambel, Fekler ve Sencer (2007)	HES	Increasing the success of the subject of grain structure of the substance
Yakısan (2008)	HES	Increasing success with the subject of cell context and reduce misconceptions regard to the topic
David ve Jerry (2009)	HES	Facilitating conceptual teaching for the subject of dissolution
Kolonu (2009)	HSS	Improving the teaching of the speed of chemical reactions and the permanence of knowledge
Inak (2010)	SSS	Increasing academic achievement and mind-keeping for Science and Technology course
Kaya (2011)	PSS	Facilitating vocabulary teaching for foreign languages
Elmstrom Klenk (2011)	HSS	Effectiveness in teaching and learning abstract concepts (planetary movements)
Taskale (2011)	SSS	Increasing math success and attitude towards mathematics
Erdemir (2012)	SSS	Increasing academic achievement on the subject of living creatures and energy issues
Bircan (2014)	HSS	Increasing learning in history, reducing learning time, reducing misconceptions

PSS: Primary School Student, SSS: Secondary School Student, HSS: High School Student, HES: Higher Education Student.

**Appendix 2.**The Example of the Scenario Card in Animation Development Process

Learning Outcome - Subject Focus	Environment	Character(s)	Dialogue Process	Information Transfer	Background Change
The right of a healthy life Right to shelter	Street Home	Mother Child (Main Character)	Mother - Child (MC) Child (MC) - Child (WS)	Audio Text (Speech Bubble)	From Home to Street From Street to Playground
Right of not Running under Unfavorable Conditions Right of having a family Right to play	Playground	Child (Working in the street)			From Playground to Home

#### Summary of the Story - 1

The main character, who leaves to go to the park from the house, meets a child who works on the edge of the park. As a result of this encounter, a dialogue starts. This dialogue will take place within the framework of why child does not play in the park, whether he has a home and a family, whether he goes to the school or not and why he works. After this dialogue, the child, main character, who returns home with various questions in his mind, initiates a new dialogue with his mother in connection with previous dialogue and the questions that arise in the mind. At the end of this dialogue, the mother makes explanations within the subject area regard to the main character and the animation is completed.



**Appendix3.**Examples of Animation Design Process Steps

