



DEVELOPMENT OF INTERACTIVE BOOK FOR KIDS: LEARN COLORS PLAYING

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Nowadays, we live in a constant change, in the educational models and society, we see ourselves involved in a digital revolt that affects, not only in the industrial production but also sector of services, since this sector includes activities that involve the production of material goods such as education.

The aim of this study is to investigate how the advance of technology could be implemented into the sector education (for kids from 3 up to 6 years). It is necessary to prepare children at an early age to face this new digital world, for this it's necessary to introduce them different possibilities of use of digital devices for an educational purpose.

The emergence of communication media such as: television, radio, and finally the Internet caused the flow of information to become faster, therefore, the way of teaching our new generations changed. Children grow surrounded by screens, the screens have long changed since the ones that the adult's had, but nowadays there is more development of devices designed only for children, since it tries to prepare children for what will come in the future.

Due to these changes the book has begun to move towards the digital, which causes a great satisfaction and comfort to the new generations, since, e-books are easy to carry, to use and its cost is much smaller. Digital books or e-book are virtual elements that can be displayed only in various digital devices such as: tablet, mobile phone, computer, etc.

At the moment, an e-book not only allows the reading of digital books, they are also supports that allow playing with video games, communicating with other people and other applications, among the existing options with educational component, this makes these products attractive to purchase by the parents and family

Before the digital devices was consider a luxury, expensive enough to leave it within the reach of children, but, in 2012 it began to come on the market, products that help to share the device with the child the ludic and safe way, these products have shells that in addition to protecting it from falls, it gives a form of character to the product, which makes it attractive to the kids [1].

One reason why it is better to teach our children reading in a digital way is because reading the book in digital is a more interactive, it gives the reader a pleasant experience, due to the hypertextuality of the narration, the comparison between printed books and e-books is that the printed books allow a linear reading, with this we mean that pages can be moved back and forward, allowing us to stop at what interests us, however, there would end the interaction with the book. Therefore, it is necessary to stimulate at a young age the desire for knowledge and to break the fear of using digital devices at this stage. Children's e-books imagination and thought,



since they are in an imaginary world where the actions of the characters are developed, in addition, these books allow it to be read by oneself, reading while playing, play or simply that the same device read the story.

Children grow up among products, images and messages that force them to believe in values, behaviors and tastes, however, with the help of books, people are creating their own vision of the world, The book itself is an educational tool with high value, however, digital or electronic books foment the reading in children, since, it allows them to learn independently and interact with history, although, you must always be careful in the way in that how the book is made, since it should be thought in the child and their needs, so that it results beneficial and enriching.

Considering the way of learning of infants and children, we can see that the most effective tool are games, children love to learn in a fun way, since, this is like a journey of exploration and emotion. Games have an important role in early learning, because with them you can learn to count, learn colors, shapes etc. [2].

Games provoke an integration among children and foster creative-social learning, it can create an environment of wanting to learn even when it is not there. The games motivate the children in a playful way offering learning with positive characteristics, for example, lighting the mood and increasing the morale in the individuals. The game should not be more important than the learning, it should increase performance and improve to the learning experience.

The development of a children's digital book requires certain stages such as: defining the audience to be addressed, defining the topic to be treated, writing the story or plot, developing the story based on an educational content and performing the characters, landscapes and objects that the narrative treats.

Our interactive book seeks to engage the child in the educational process and that, through the main character, the child is involved in the plot of the book. The main character will tell a story that helps the child learn and recognize the variety of colors in the rainbow and the order of each color in it, so the child must perform various tasks with the main character to continue with the history.

The target audience for this book is mainly the infants, the story of our book is about Patrick a leprechaun who is lost and seeks to find the end of the rainbow to get his gold pot. After discovering the colors of the rainbow and his order, Patrick must perform various activities to get a gold coin so that Patrick could advance to his next challenge, we decided to develop this story from a child perspective, so that we generate in the child a Relationship between narrative and reality, creating with that a playful and educational content through various mini games that help children to recognize and associate color with reality. The purpose of this book is to teach children other uses of electronic devices, besides the playful side instructing them in educational applications, that prepare them for this new era of digital in which we are living, given that, new innovations and changes of the era, require a permanent reflection and modification in the ways of teaching our new generations, so that they can adapt to the technology and environment.



Picture 1 – Main character

When thinking about early learning, the first elements that children face are colors, both in objects and in their relationship to the environment. Color helps improve motor skills, cognitive reasoning, and language. Children are completely influenced by colors in the early stages of life, because everything in their environment has a specific color. Parents often teach their children the colors by associating them with something that has this color, for example, apples, with the color red. It is about teaching at an early age to recognize and distinguish some colors from others to be able to go giving a sense to the environment they live. Over time children will shape their preferences and associate colors not only with objects but also with feelings.

However, in order to understand the importance of the sequence of colors in the spectrum, one must understand the relation between the tonalities perceived in reality and the tonalities present in the spectrum. The teaching of this tonal sequence must bring together play and routine, in order to arouse interest in children, either through visual stimuli or multimedia applications. When you begin to teach the rainbow, you learn each color one by one, so you can begin to differentiate them. Color has great importance, since it allows us to express moods, to make ourselves known, helps us to distinguish one product from another and it helps us to communicate our feelings. Each color has a specific meaning and a specific function.



A fun way to teach the colors of the spectrum is through the use of digital games and applications, however, it is normal for parents to be afraid of children developing an addiction to digital devices, but the threat disappears when the parents put a limit in the use of these. How does the use of games influence the performance of the child? This question has been answered by Begoña Gross, who mentions that no one doubts that it is possible to learn by playing, since games are elements that motivate and favor children's attention, their cognitive development, their psychomotor skills and their interest in learning [3].

Digital applications contain a set of benefits, for example: improving mental agility, problem solving, fostering imagination and thinking, increasing memorization and learning to manage information, because They have to apply what has been learned previously to be able to continue navigating in them.

To conclude, new technologies are an essential part of the liquid society, which is a constant change and causes an increase in both fun and educational digital content, which is why we have to adapt to technology and prepare our new generations To be able to face the future, the future we can predict that it will be mostly digital and in which technology could benefit us in educational aspects, if we know how to take advantage of it's time and if we give a good use to it.

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