Preschool Experiences of Children Interacting with Digital Stories: Focusing on Suspense as a Factor of Enjoyment

Eleni Gkantia, Kostas D. Dinas

Preschool Experiences of Children Interacting with Digital Stories: Focusing on Suspense as a Factor of Enjoyment

Eleni Gkantia
Postdoctoral researcher, Phd in Linguistics, Department of Early Childhood Education, University of Western Macedonia, Florina, Greece
Email: gantiaeleni@gmail.com

Kostas D. Dinas
Professor of Linguistics-Greek Language, Department of Early Childhood Education, University of Western Macedonia, Florina, Greece
Email: kdinas@uowm.gr

Abstract
The present study focuses on the study of suspense in the context of exploring the experiences of preschool children in their interaction with a form of digital story, connecting suspense with the enjoyment of learning. The study seeks to contribute to the expansion of research into the user experience in the fields of new (interactive) media, as the conception and empirical evaluation of the way in which listeners, and in particular young children, respond to a (interactive) digital story is not developed. The sample consisted of 32 children of kindergarten and pre-kindergarten age, who, after being divided into two groups, were exposed to listening to a different form of the same digital aloud reading: interactive and non-interactive. The measurement of suspense was based on the verbal (use of language, making noise) and non-verbal (facial expressions, physical movement, gestures, touching) reactions of toddlers, which are manifestations of their involvement in the outcome of the story. Verbal and non-verbal behaviors were videotaped during digital reading aloud. The data were coded for each child at one-minute intervals, examining the simultaneous behavior and then collected, to determine the frequency measurements of the individual toddler behaviors by type in each form of digital narrative. The results show that a) digital storytelling in both listening conditions caused intense suspense in preschool children as it is a narrative adventure that has the structure of a story of agony,b)there are no significant differences between the two listening conditions, c) linearity of the narrative, the role of the user and the degree of his interaction with the digital story are reduced to important factors that increase suspense and enjoyment. Further research could be

related to the investigation of toddlers' reactions when the interaction is presented as a challenge or a game, when it is reduced to (re) -creation and when it enhances the experience of the story by the user taking on a role in the plot of the narrative.
Keywords: Suspense, Enjoyment, Interaction with Digital Story

Introduction
The last twenty years have been marked by an effort to change the school culture, emphasizing howstudents feel and making frequent references to enjoyment (Hartley, 2006). According to Griffin (2005: 140), it is the "pedagogy of pleasure", which connects enjoyment with students' motivationfor learning, learning process, self-image development and school well-being, while the absence isone of the main reasons that students do not use their potential (Goetz et al., 2006; Shernoff et al., 2003) and result in multiplefailures in education (David et al., 2003). It is implied, then, that lack of enjoyment is the cause of learning failure. The Green Paper Every Child Matters (ECM) (DfES, 2003a) milestone identifies five key outcomes of education, one of which is enjoyment, placing it on the same level of importance as health and safety.

Focusing on the use of storytelling in the school process, Zillmann`s (1996; 1971) research points to the pleasure that comes from reading / listening to suspenseful stories, as it is argued that itis a function of both cognitive and emotional processes. This proposition is based on his previous studies on the *Excitation-Transfer Theory* (Zillmann,1971). He claimed that people feel an "emotional discomfort" while watching a story and are in a state of "excitement". This stimulus decreases slowly when the stimulus that produces it is no longer perceived. At the conclusion of a narrative, this residual arousal is believed to be combined with the positive emotions associated with a satisfactory end, to create a state of "euphoria". In addition, Zillmann argues that an unsatisfactory end would cause a state of "discomfort". Specifically, the suspicion associated with suspense (supposedly a negative emotional state) reinforces any emotional state a person has at the end of the movie, listening or reading. A positive ending will be more satisfying or will produce more intense positive emotions if preceded by scenes of agony rather than non-agony. On the contrary, a negative ending will be more unpleasant or will produce more intense negative emotions, if scenes of agony precede non-agony.

Brewer & Lichtenstein (1981) provide more support to the excitation-transfer hypothesis. The researchers worked out the structure of the story by including an initial fact in some stories and excluding it in others. The results showed that these stories with the initial events (suggesting a significant result) produced more suspense than the stories without an opening event. In addition, the stories that caused anxiety were liked more and their endings were considered more satisfactory than the stories that did not create suspense. Several more studies provide evidence that anxious narratives are enjoyed more than those that are less anxious. Alwitt (2002) found that participants who watched suspense-generated TV commercials had a more positive attitude toward the advertisements than participants who watched non-anxious commercials. Studies based on the *Structural-Affect Theory* of Brewer & Lichtenstein (1981) also provide empirical support for the positive impact of anxiety on pleasure. The main goal of this theory is to contribute to the understanding of the different narrative structures designed to been tertaining (e.g.mystery, surprise, suspense), as opposed to other types of texts that serve alternative purposes (e.g. articles newspapers intended for information). In addition, in those studies that examined the structures of anxious stories (Jose, 1988; Jose& Brewer, 1990), the

results showed that the elements (supposedly) that create an anxious narrativehad a positive effect on participants' enjoyment of the narrative. Jose & Brewer (1990), however, measured the anxiety. In particular, their study found that gender similarity (i.e. identification) and character strength (i.e. good versus bad character) were positively correlated with anxiety, which in turn had a positive effect on narrative enjoyment.

According to the American Heritage Dictionary (2000), suspense is defined as "pleasurable excitement and anticipation regarding an outcome, such as the ending of a mystery novel," and as "anxiety or apprehension resulting from an uncertain, undecided, or mysterious situation." Suspense researchers argue thatanxiety is an emotional experience (Alwitt, 2002; Barnet et al., 1971; Carroll, 1996; de Wied, Tan, & Frijda,1992; Kassler, 1996; Mikos, 1996; Ortony et al., 1988; Sternberg, 1978; Vorderer & Knobloch, 2000; Vorderer et al., 2001; Wuss, 1996; Zillmann 1996). They disagree, however, on its emotional content. In particular, there is disagreement as to whether suspense consists of a) only negative emotion, such as fear and anxiety (Vorderer et al., 2001), b) only positive emotion, such as hope, expectation or excitement (Caplin & Leahy, 2001; Pine & Gilmore, 1999), c) both negative and positive emotion (Ortony et al., 1988; Sternberg, 1978), or d) either negative or positive emotion (Zillmann, 1996).

Suspense has its roots in a state of uncertainty. Anxiety is fueled by dissuasive emotional components, such as anxiety or empathy (e.g., a viewer who fears the defeat of a film protagonist, see Zillmann, 1996). Anxious users have a strong interest in a particular outcome of an episode of astory (e.g. my character has to win the match). Unlike curiosity, it is based on emotional engagement with the characters. This emotional interest makes users want specific results and raises the concernthat these specific results may not be displayed. Therefore, anxiety is a rather stressful way ofhaving fun. However, if the desired results are obtained, in most cases strong experiences of reliefand satisfaction follow (Zillmann, 1996). Research in media psychology shows that both the deterrent stage of anxiety and the reward of relief contribute to user enjoyment (Vorderer, Wulff & Friedrichsen, 1996; Knobloch, 2003). According to studies, suspense takes place both in conventional entertainment, such as in novels, and in interactive media (Klimmt, Rizzo, Vorderer, Koch & Fischer, 2009b), such as digital stories, as an evolution of reading aloud. Digital storytelling promises a new experience of entertainment and learning, as they combine verbal and non-verbal representations, while offering the user the ability to interact with it. In particular, interactive digital storytelling (Aylett et al., 2008) or interactive narrative (Szilas, 2003) are on-screen illustrated children's picture books (DeJong & Bus, 2003; Korat & Shamir,2004),constructed in computer, tablet, ipad, internet, combine graphics, sound, text, animation, comics etc. which are supportive features of the story (Chen, Ferdig, & Wood, 2003; Javorsky & Trainin,2014; Korat & Shamir, 2004) and are non-linear, non-sequential and interactive providing a literal interaction between the reader and the text (Coiro, 2003; Schmar-Dobler, 2003; Sutherland-Smith,2002). In fact, the possible combination of a strong narrative with a wide and substantial interaction offers a wide variety of experiential dimensions in the user's responses. Interactive narrative systems are also likely to facilitate the challenge of anxiety, as they can create emotional engagement with characters and situations (Paiva et al., 2004) and at the same time a perception of personal challenge to users, as well as unique user experiences, because can facilitate different types of cyclical anxiety and relief experiences.

The most commonly used framework to explain why and how people enjoy the media is the

Entertainment framework (Zillmann & Vorderer, 2000), which in the late 1990s, after systematic exploration by psychologists, sociologists and scientists recognition, achieving satisfaction as the main function of entertainment. This view is consistent with the *Theory of Uses and Gratifications* (Blumler & Katz, 1974), which was created to explain the motivation for using the media (radio, television, new multimedia). The Theory of Uses and Gratifications examines the use of means in terms of satisfying the social or psychological needs of the individual (ibid.). McQuail (1987) lists four main aspects as common reasons for using the media: a) Information (e.g. finding relevant news, learning), b) Personal identity (e.g. identification with multimedia characters), c) Integration and social interaction (e.g. sense of belonging, empathy, substitute for true companionship), d) Entertainment (e.g.relaxation, escape from problems, inherent cultural or aesthetic enjoyment, emotional release).

Thus, media users may have one or more incentives to use a particular medium and content in anticipation of the desired results. According to Vorderer, Steen & Chan (2006), entertainment can be seen as an answer to a set of choices rather than a feature of that particular multimedia product.

Vorderer, Klimmt & Ritterfeld (2004) presented a theoretical model of the entertainment experience that keeps pleasure at its core. Incentives for media use (e.g. mood management), user conditions (e.g. empathy and interest) and media conditions (e.g. technology, design and content) are taken into account and theoretically affect the experience of enjoyment. The experience of pleasure is manifested by emotions (e.g. joy and sorrow) and self-perception (e.g. control and self-efficacy), which lead to the desired results of the means (e.g. transfer of stimulation and learning). In return, these results will affect the motivation (e.g. through expectations) and conditions of users, as well as the perception of the conditions of the media for their current and future use.

However, the conception and empirical evaluation of the way in which the listeners, and in particular the young children, respond to an (interactive) digital narrative is not developed. This research, therefore, focuses on the study of suspense in the context of exploring the experiences of preschool children in their interaction with a form of digital story (interactive and non-interactive).

Methodology
Participants
The sample of the research consisted of 32 preschool children (N = 32) (19 children of kindergarten age, 13 children of pre-kindergarten age) who attended 2 kindergartens in the prefecture of Arcadia. Out of the total sample, 15 were boys (9 children of kindergarten age and 6 children of pre-kindergarten age) and 17 were girls (10 children of kindergarten age and 7 children of pre-kindergarten age), who had previously been evaluated with the Logometer Test (Mouzaki, 2017) in terms of receptive vocabulary.

Materials
The research used the digital interactive story "Little Emily, the Cherry Stalk and the Eraser Bombs" by Eugenios Trivizas. This adventurous digital storytelling, found on the website http://www.everaftertales.com/el/, won the 2016 International Interactive Book of the Year

Award for preschool children from Kidscreen Awards, the most important children's television and online award winner content.

Data Collection Media
The research was conducted in the halls of kindergartens. The students of each kindergarten were randomly divided into two groups and each group interacted with a form of digital story (interactive and non-interactive).

In the context of interactive storytelling, the focus is on measuring the suspense created by emotional involvement in the outcome of the story.

Knobloch et al., (2004) developed a three-item scale for suspense (α = 80), rating media content in terms such as 'exciting' and 'thrilling' on a Likert six-point scale. But feelings of thrill and excitement can be triggered by experiences that are not directly related to anxiety through involvement in the story. For example, they can be fueled by the beautiful aesthetics and multi-interaction experience that an interactive story offers. While this is part of the enjoyment of interactive narrative applications, the suspense evoked by narration is a different concept. Also, other scales used to measure anxiety are offered for specific environments (e.g. Hartmann et al.,2008), but no scale for interactive storytelling aimed at preschool children was found.

Suspense as an experience in interactive storytelling has been understood as an emotional engagement in the outcome of the story. The term results of the story can apply to individual (sub)-complications of the story or to the story as a whole. The results can be either positive or negative and therefore the emotions evoked can in turn be positive or even negative (e.g. hope and anticipation versus fears and worries). In addition, emotional responses may occur before the final outcome (e.g.hope) or after the final outcome (e.g. relief). To capture suspense, we must look for the emotional involvement that took place before the result became known.

The measurement of suspense in preschool children focuses on their verbal and non-verbal reactions as manifestations of their involvement in the outcome of the story. From the literature review emerged studies that highlight these reactions, related to facial expressions (for expression of thoughts and feelings, for example half-open mouth, curved eyebrows, intense gaze (Ekman &Friesen, 2003; Hiatt, Campos & Emde, 1979 ; Izard, Huebner, Risser & Dougherty, 1980), eyebrow groove as an expression of intense anxiety (Ekman & Friesen, 2003; Demos, 1982) with the misfortune of the character with whom the spectators are not emotionally involved (Cikara & Fiske, 2012; Ekman, 2003)), use of gestures (placing hands on the mouth (Ekman & Friesen, 2003)) and use of movements (posture of body, e.g. being on the edge of the chair in moments of agony (Ekman,2003)) .

Research by Moll, Khalulyan & Moffett (2016) highlights young children's agonizing reactions when watching a puppet show. It is pointed out that the behaviors were coded, only if they reflected the intensity from the puppet show (e.g. opening the mouth while looking away, it was not coded) and if it was constantly present throughout the show. Specifically, it is about the use of language (to comment, make predictions, answer questions or ask questions, such as 'What will happen now?'), facial expressions (to express thoughts and feelings, e.g. eyebrow raising, smile, sudden opening or closing of the mouth, biting the lip), the use of gestures (creating a fist with the hands closed, placing hands on the mouth, indicating tension without a purely voluptuous tone), making noises (exclamations, screams) and the use of movements (nervous or disturbed body movement).

At the same time, Aliagas & Margallo (2016) research on the reactions of preschool children to listening to interactive digital stories presented on tablets highlighted the use of gestures (e.g. closing / shaking hands and closing the mouth) as manifestations of suspense with the hands) facial expressions (e.g. winking or staring), movements (moving away from the screen), use of language (commenting as an expression of frustration over the unpleasant outcome of the story), touching (e.g. tapping on the tablet screen) and making noises (e.g. hm!).

Summarizing the aforementioned literature, researchers studying the challenge of suspense in young children report two broad categories of behavior: a) verbal behaviors, such as comments, predictions, questions, laughter, making noise, and b) non-verbal behaviors, such as facial expressions, physical movement, touch/touch, gestures. Behaviors are depicted in Table 1.

Behaviors			
Verbal Behaviors		**NonVerbal Behaviors**	
Basic behaviors	**Definition**	**Basicbehaviors**	**Definition**
Using Language	Commenting Predicting Asking questions	**Making facial expressions**	Facial expressions for expressing thoughts and feelings
Making noises	Sounds for expressing thoughts and feelings such as exclamations, screams	**Moving**	Posture of the body in moments of agony Nervous / disturbed movements Removal from the screen
		Gesturing	Use of body as an expression of suspense
		Touching	Fingers on screen (hold, tap device)

Table 1. Categories of behavior as manifestations of suspense

Toddler behavior categories were coded using video and more specifically a student-centered camera as well as using notes during digital reading aloud. Using the typology, the observation data set was encoded every 60 seconds and entered into NVivo-12 for analysis. In each period of 60 seconds, the data in each child were coded by recording the presence and the simultaneous evolution of the characteristic behaviors that exist in this period. For example, a child could simultaneously encode that he touches and uses the language by making a comment. The analysis yielded frequency measurements of the infants' individual behaviors by type, as determined by the typology. The data were then collected, the average frequency of each

behavioral indicator and the total percentage of time that was calculated for the infant sample in the interactive and non- interactive form of digital narration.

Results

The present study focused on the study of suspense created by the listener's emotional involvement in the outcome of the story, taking into account the reactions of preschool children when they interact with a form of digital story (interactive and non-interactive). For the purposes of this study, the analysis was limited to data describing infants' verbal behaviors (comments, predictions, questions, laughter, making noise) and their nonverbal behaviors (facial expressions, physical movement, touch, gestures). As the present study included independent listening of the story by the infants and not co-reading with the teacher's input, no answers to questions (i.e. the use of language, which falls into the category of verbal behaviors) were analyzed.

Verbal behaviors
Figure 1 shows the distribution of verbal behaviors in the two forms of digital narration. There do not appear to be significant differences between the two listening conditions in this type of infant reactions. Therefore, the presence of interactive elements in a listening condition does not play a role in the use of language and the creation of noises as manifestations of suspense by preschool children.

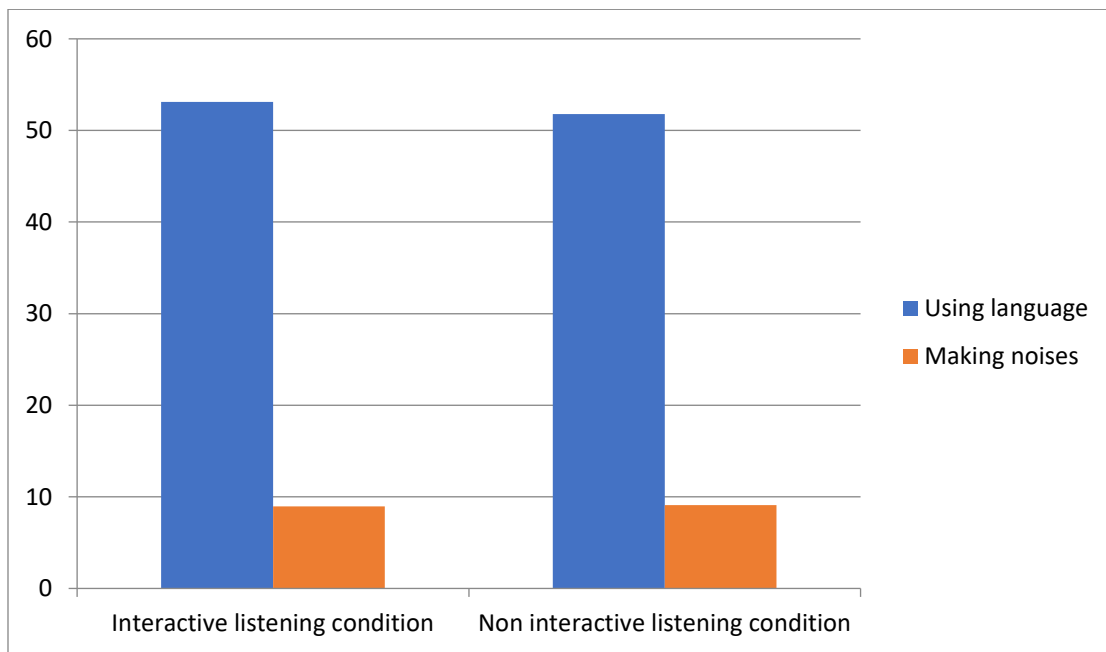

Figure 1. Distribution of verbal behaviors by digital story listening condition

Verbal behaviors	Listening condition	
	Interactive	Non interactive
Using language	53,1%	51,8%
Making noises	8,97%	9,1%

Non-verbal behaviors
Figure 2 shows the distribution of frequencies of different types of nonverbal behaviors as suspense manifestations by digital story format. The data do not differ in the frequency of non-verbal behaviors (facial expressions, moving, gesturing, touching) between the two listening conditions of the story.
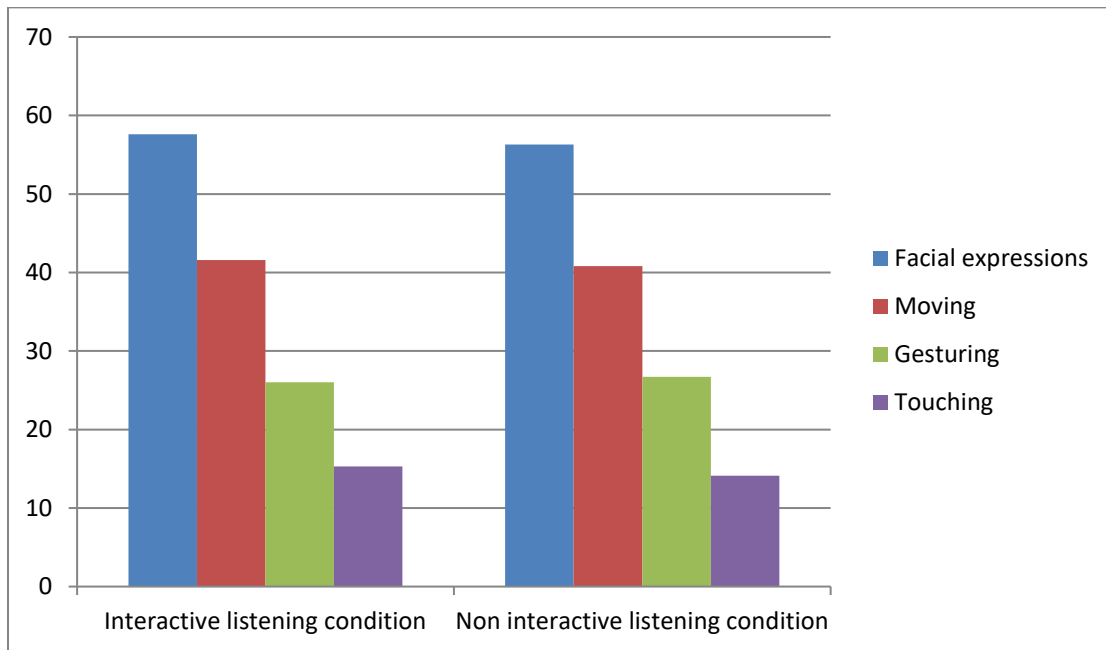

Figure 2. Frequency distribution of nonverbal behaviors by digital story format

Non-verbal behaviors	Listening condition	
	Interactive	Non interactive
Facial expressions	57,6%	56,3%
Moving	41,6%	40,8%
Gesturing	26%	26,7%
Touching	15,3%	14,1%

Conclusion
Multimedia systems are a rapidly evolving field that has dominated various aspects of intermediate communication and the activity of modern man in general. These technologies seek a more "friendly" and expressive presentation of the content, providing immediacy to the (usually remote) user to navigate complex, non-linear narrative paths and / or more advanced forms of interaction. In this way, an attempt is made to stimulate more and more senses of the user and to create a rich media communication experience (Dimoulas et al., 2015).

In a story application, which also focuses on the present study, the narration of the story is done through a series of on-screen multimedia and interactive functions, such as filmic effects, animation, music / sound background and hotspots animations or hotspots placed in the text. In particular, this research focused on the study of suspense (anxiety) in the context of exploring the experiences of preschool children in their interaction with a form of digital story (interactive

and non-interactive). The results show that digital storytelling in both listening conditions caused intense suspense in preschool children. Specifically, it is a narrative adventure that has the structure of a story of agony where a significant consequence, as defined by the Structural-Affect Theory (Jose, 1988; Jose & Brewer, 1984), is likely to occur in the central character of the story, as is Alexis Ptotistis in the story under processing. An important consequence is the listener's knowledge that an important outcome is pending for the character of the story, e.g. The planet of Colors, painted by an artist for his little daughter, is threatened by cunning enemies, determined to destroy him. The uncertainty of this effect on the character creates a sense of suspense (excitement) in the listeners and the solution to this anxiety at the end of the story reduces the excitement in a pleasant way by creating a pleasant emotional state (Berlyne, 1971), with students in state of euphoria, as evidenced by their verbal (use of language) and non-verbal reactions (facial expressions). This is in line with the Excitation-Transfer Theory (Zillmann, 1971) and confirms Jose & Brewer's (1990) research on preschool children, who argue that the enjoyment of storytelling relies heavily on the structure of the story of agony.

At a second level, the results show that the form of the digital story does not affect the suspense of the listeners during the digital reading aloud, as the percentages of both verbal and non- verbal reactions of the toddlers do not differ between the two listening conditions.

Focusing on the interactive digital story used, it is worth noting that the interactivity focuses on the 'hotspots' that present to the listener specific zones where he can "click" or touch the screen, activating text, animation, sound effects, without, however, to have the possibility of small or large interventions in the plot of the story. Based on this, the interactive form of the digital story is included in the closed environments on all the digital narrative frameworks, as well as the non- interactive story listening condition, where the user interacts with prescribed narrative frameworks defined by the narrator, which is primarily linear (Szilas, 2003). Therefore, the receiver of the narrative in both listening conditions is a spectator and at the same time interacts (interactive), but cannot become a facilitator of narrative expression, coordinator of the narrative flow (drama manager) (Barbas & Correia, 2009) and finally co-author of the narrative result (Aylett & Louchart, 2003), which would reasonably cause the increase of suspense in the interactive form of narration, as the user would be anxious about the evolution of his choices. This conclusion is consistent with the research of Aliagas & Margallo (2016), according to which toddlers experienced strong emotions, such as anxiety, when interacting with digital story, as they were asked to make decisions about its evolution that changed history irrevocably. Also, the fact that in the interactive form of digital story there is no idea of experiencing adventure in the first person, through e.g. avatar, did not encourage even more intense emotional identification in this listening condition, which would cause greater suspense, as argued by Brewer & Lichtenstein (1982), sometimes blurring the distinction between the listener world and the world of story (Sipe, 2007). Thus, more intense suspense could be caused either cognitively (when the listener assumes the role of co- writer of the story) or emotionally (when the listener is placed as an internal character in the story, favoring identification with the protagonist), while increasing enjoyment of listening to the interactive condition of listening to digital story (Zillmann, 1996; 1971).

At this point it is worth mentioning the typology of Ryan (2006), which helps us to understand how and to what extent the design of the digital storytelling application invites the user to take a special role in fiction, resulting in an increase in suspense. In particular, the typology of user /

computer interaction by Ryan (2006) presents the role that the user has in the interactive narratives and the results of his / her action by crossing two binary pairs with four possible combinations: a) internal / external, depending on whether the user is a member of the virtual world, identifies with an avatar or stays out of it and simply watches and b) exploratory / ontological, depending on whether the user's actions have no effect on the destiny of the virtual world or whether his decisions lead history to alternative paths. These clear types of interaction are complemented by a fifth, known as the "hybrid", which takes into account the complexity of the combinations. In the present research, the user's action in the interactive listening condition is external and exploratory, simulating it with the user's interaction in the non-interactive form of digital story. These are, therefore, narrative forms with a low (non-interactive - the user only controls the flow rate) and medium (interactive - the user has specific communication options - with the system defined by the creator) degree of interaction between the story creator and of the user- recipient of the narrative (Szilas, 2003). Therefore, the role of the user and the degree of his interaction with the digital story are reduced to important factors that cause suspense.

The linearity of the narrative is another common element between the two listening conditions. The differentiation in the order in which the scenes are presented could have an impact on the increase of suspense in one of the two forms of digital story. In a linear story, telling the events in the order in which they happened, the result is not known, a fact that creates anxiety, especially when the viewer likes or dislikes the characters (see *Affective Disposition Theory*, (Zillmann: 1996)). While in the case of reverse narration, where the opening event and the outcome change position, there may be suspense as users wait to see how a character found himself in this situation (Brewer & Lichtenstein, 1982).

In conclusion, we point out that e-readers expand access to forms of children's literature (fairy tales, fantasy stories, humor, realistic novels and illustrated books) through a specific process of experimentation with multimodality and interactivity that changes the nature of children's literature., 2003), i.e. a literature written, published, which is treated by experts with the primary goal of children (Nikolajeva, 1996: 9).

It would be interesting, however, to see emergent readers take on active reading roles, which we see as a result of the autonomy provided by on-screen interaction, and also to see the effect it would have on increasing suspense and enjoyment. Indicatively, the investigation of toddlers' reactions is mentioned, when the interaction is presented as a challenge or a game (e.g. by choosing the correct answer to a quiz, to continue the story), when it is reduced to (re) -creation (e.g. by choosing scenes and elements that the user includes in the story) and when it enhances the experience of the story by the user taking on a role in the plot of the narrative. The increase in the child's autonomy during co-reading, thanks to the interactive data, seems to be reflected in the redefinition of the adult role, which is determined according to the needs or desires of the child and this deserves more research.

References

Aliagas, C., & Margallo, A. M. (2017). Children's responses to the interactivity of storybook apps in family shared reading events involving the iPad. *Literacy, 51* (1), 44-52.

Alwitt, L. F. (2002). Suspense and advertising responses. *Journal of Consumer Psychology, 12*(1), 35–49.

Aylett, R., Louchart, S., Tychsen, A., Hitchens, M., Figueiredo, R., Delgado Mata, C. (2008). Towards a narrative theory of virtual reality. *Virtual Reality Journal, 7*, 2-9.

Barbas, H. &Correia, N. (2009). The making of an interactive digital narrative– Instory. In Schreurs, J. (Ed.), *Proceedings Euromedia'2009*, Eurosis Publication, 35-41.

Barnet, Sylvan, Morton Berman, and William Burto (1971), *A Dictionary of Literary,*
Dramatic, and Cinematic Terms. Boston: Little, Brown.

Ben-David, S., Eiron, N., & Long, P. (2003). On the difficulty of approximately maximizing agreements. Journal of Computer and System Sciences, 66, 496–514.

Berlyne, D. E. (1971). *Aesthetics and psychobiology*. New-York: Appleton-Century-Crofts.

Blumler, J.& Katz, E. (1974). *The Uses of Mass Communications: Current Perspectives on Gratifications Research*. Sage, Beverly Hills, CA.

Brewer, W. F. & Lichtenstein, E. H. (1981). Event schemas, story schemas, and story grammars. In Long, J. and Baddely, A., editors, *Attention and performance IX*, pages 363–379.Erlbaum, Hillsdale, NJ.

Brewer, W. F. & Lichtenstein, E. H. (1982). Stories are to entertain: A structural-affect theory of stories. *Journal of Pragmatics, 6*, 473–486.

Caplin, A., & Leahy, J. (2001), Psychological Expected Utility Theory and Anticipatory Feelings, *Quarterly Journal of Economics, 116* (1), 55-79.

Carroll, N. (1996). The Paradox of Suspense, in *Suspense: Conceptualizations, Theoretical Analyses, and Empirical Explorations*, P. Vorderer, H. J. Wulff, and M. Friedrichsen, eds. Mahwah, NJ: Lawrence Erlbaum Associates.

Chen, M., Ferdig, R., & Wood, A. (2003). Understanding technology-enhanced storybooks and their roles in teaching and learning: an investigation of electronic storybooks in education. *Journal of Literacy and Technology, 3*(1).

Cikara, M., & Fiske, S.T. (2012). Stereotypes and schadenfreude: affective and physiological markers of pleasure at outgroup misfortunes. *Social Psychological and Personality Science, 3*, 63–71.

Coiro, J. (2003). Reading comprehension on the internet: Expanding our understanding of reading comprehension to encompass new literacies. *Reading Teacher, 56*(5), 458-464.

De Jong, M. T. & Bus A.G. (2003). How well suited are electronic books to supporting literacy? *Journal of Early Childhood Literacy, 3*, 147–164.

Demos, E.V. (1982). Facial expressions of infants and toddlers: a descriptive analysis. In T. Field & A. Fogel (Eds.), *Emotion and early interaction* (pp. 127–160). Hillsdale, NJ: LEA.

Department for Education and Skills (DfES) (2003a). *Every child matters.* London: DfES.

de Wied, M., Tan,S. H., &Frijda,N. (1992), "Duration Experience Under Conditions of Suspense in Film," in Time, Action and Cognition: Towards Bridging the Gap, Francoise Macar, Viviane Pouthas, and William J. Friedman, eds. Boston: Kluwer Academic Publishers.

Dimoulas, C., Veglis, A., & Kalliris, G. (2015). Audiovisual hypermedia in the
semantic Web. In M. Khosrow-Pour (Ed.), *Encyclopedia of Information Science and Technology* (3rd ed.; p.p. 7594-7604).

Ekman, P. (2003). Sixteen enjoyable emotions.*Emotion Researcher, 18*, 6–7.

Ekman, P., & Friesen, W.V. (2003). *Unmasking the face: A guide to recognizing emotions from facial cues.* Cambridge, MA: Malor Books.

Goetz, T., Nathan C., Hall, B., Anne, C., Frenzel, A., & Pekrun, R. (2006). A hierarchical conceptualization of enjoyment in students.*Learning and Instruction*, *16*, 323-338.

Griffin, S. (2005). Teaching for enjoyment: David Manson and his 'play school' of Belfast. *Irish Educational Studies*, *24*(2), 133-143.

Hartley, D. (2006). Excellence and enjoyment: The logic of a 'contradiction'. *British Journal of Educational Studies54*(1), 3-14.

Hartmann, T., Stuke, D., &Daschmann, G. (2008). Positive Parasocial Relationships with Drivers Affect Suspense in Racing Sport Spectators. *Journal of Media Psychology:Theories, Methods, and Applications*, *20*(1):24–34.

Hiatt, S. W., Campos, J. J., & Emde, R. N. (1979). Facial patterning and infant emotional expression: happiness, surprise, and fear. *Child Development, 50*, 1020–1035.

Izard, C. E., Huebner, R. R., Risser, D., & Dougherty, L. (1980). The young infant's ability to produce discrete emotion expressions.*Developmental Psychology, 16* (2), 132–140.

Javorsky, K., & Trainin, G. (2014). Teaching young readers to navigate a digital story when rules keep changing.*The Reading Teacher*.

Jose, P. (1988), Liking of Plan-Based Stories: The Role of Goal Importance and Goal Attainment Difficulty, *Discourse Processes*, *11*, 261-73.

Jose, P., & Brewer W. (1990), Early Grade School Children's Liking of Script and Suspense Story Structures, *Journal of Reading Behavior*, *22* (4), 355- 72.

Kassler, M. (1996), "Factors of Suspense in Narratives and Film," Unpublished Doctoral Dissertation, University of Memphis.

Klimmt, C., Rizzo, A., Vorderer, P., Koch, J., and Fischer, T. (2009b). Experimental Evidence for Suspense as Determinant of Video Game Enjoyment.*Cyber Psychology & Behavior, 12*(1):29–31.

Knobloch, S., Patzig, G., Mende, A.-M., &Hastall, M. (2004). Affective News: Effects of Discourse Structure in Narratives on Suspense, Curiosity, and Enjoyment While Reading News and Novels. *Communication Research*, *31*(3):259–287.

Korat, O., & Shamir, A. (2004). Do Hebrew electronic books differ from Dutch electronic books? A replication of a Dutch content analysis.*Journal of Computer Assisted Learning, 20*, 1–12.

Kress, G. (2003). *Literacy in the new media age*. London: Routledge

McQuail, D. (1987). *Mass Communication Theory: an Introduction*. Sage, New York.

Mikos, L. (1996), The Experience of Suspense: Between Fear and Pleasure, in *Suspense: Conceptualizations, Theoretical Analyses, and Empirical Explorations*, Peter Vorderer, Hans J. Wulff, and Mike Friedrichsen, eds. Mahwah, NJ: Lawrence Erlbaum Associates.

Moll, H., Kane, S., & McGowan, L. (2015). Three-year-olds express suspense when an agent approaches a scene with a false belief. *Developmental Science* (2015), 1–13.

Nikolajeva, M. (1996).*Introduction to the theory of children's literature.*Talinn Pedagogical University.

Ortony, A., Clore, G. L., & Collins, A. (1988), *The Cognitive Structure of Emotions*. Cambridge: Cambridge University Press.

Paiva, A., Dias, J., Sobral, D., Aylett, R., Sobreperez, P., Woods, S., Zoll, C., & Hall, L. (2004). Caring for agents and agents that care: Building empathic relations with synthetic agents. *Proceedings of the Third International Joint Conference onAutonomous Agents and Multiagent Systems, 2004.*

Pine, B. J., & Gilmore, J. H. (1999), *The Experience Economy: Work Is Theatre & Every Business a Stage*. Boston: Harvard Business School Press.

Ryan, M. (2006). *Avatars of Story Minneapolis / London*.University of Minnesota Press.

Schmar-Dobler, E. (2003). Reading on the internet: The link between literacy and technology. *Journal of Adolescent & Literacy, 47*(1), 80-85.

Shernoff, D. J., Csikszentmihalyi, M., Schneider, B., & Shernoff, E.S. (2003).Student engagement in high school classroomsfrom the perspective of flow theory.*School Psychology Quarterly*, 18(2), 158-176.

Sipe, L. (2007). *Storytime*. New York: Teachers College Press.

Sutherland-Smith, W. (2002).Weaving the literacy web: Changes in reading from page to screen. *Reading Teacher, 55*(7), 662-669.

Sternberg, M. (1978), *Expositional Modes and Temporal Ordering in Fiction*. Baltimore: Johns Hopkins University Press.

Szilas, N. (2003). IDtension: a narrative engine for Interactive Drama. In Gobel et al (Eds), *Proceedings TIDSE 2003*, FrauenhoferIRBVerlag.

Vorderer, P., Wulff, H. J., & Friedrichsen, M. (1996), *Suspense: Conceptualizations, Theoretical Analyses, and Empirical Explorations.* Mahwah, NJ: Lawrence Erlbaum Associates.

Vorderer, P., &Knobloch, S. (2000), Conflict and Suspense in Drama, in *Media Entertainment: The Psychology of Its Appeal*, D. Zillmann and P. Vorderer, eds. Mahwah, NJ: Lawrence Erlbaum Associates.

Vorderer, P., Knobloch, S., & Schramm, H. (2001), Does Entertainment Suffer From Interactivity? The Impact of Watching an Interactive TV Movie on Viewers' Experience of Entertainment, *Media Psychology, 3*, 343-63.

Vorderer, P., Klimmt, C., &Ritterfeld, U. (2004a). Enjoyment: At the heart of media entertainment. *Communication Theory*, *14*(4):388–408.

Vorderer, P., Steen, F. F., & Chan, E. (2006). *Motivation*.Erlbaum, Mahwah, NJ.

Wuss, P. (1996), Narrative Tension in Antonioni, in *Suspense: Conceptualizations, Theoretical Analyses, and Empirical Explorations*, P. Vorderer, H. J. Wulff, and M. Friedrichsen, eds. Mahwah, NJ: Lawrence Erlbaum Associates.

Zillman, D. (1996). The psychology of suspense in dramatic exposition. In Vorderer, P., Wulff, H. J., and Friedrichsen, M., editors, *In conceptualizations, theoretical analyses,and empirical explorations*, pages In conceptualizations, theoretical analyses, and e. Erlbaum, Mahwah, NJ.

Zillmann, D. (1971). Excitation transfer in communication - mediated aggressive behavior. *Journal of Experimental Social Psychology, 7*(4), 419–434.

Zillman, D., & Vorderer, P. (2000). *Media entertainment: The psychology of its appeal*. Erlbaum, Mahwah,NJ.