Don't Be a Zombie: Bringing Persuasion to Life through Fictional Narratives

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This thesis titled
Don't Be a Zombie: Bringing Persuasion to Life Through Fictional Narratives

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ABSTRACT

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Don’t Be a Zombie: Bringing Persuasion to Life Through Fictional Narratives

Director of Thesis: Jatin Srivastava

This thesis examines persuasive differences between the same fictional narrative, presented as a comic book or as text-only short story. In an experiment, the two conditions delivered a series of persuasive messages embedded within the fictional narrative. Participants were tested on strength of belief for the persuasive messages and several indicators of narrative transportation including character identification, personal relevance, perceived vividness, and counter-arguing. Results indicated character identification was most pronounced in the text-only condition. Differences within gender and age groups were identified in character identification, experience taking, and counter-arguing. The relevance of digital design principles in the creation of persuasive communication for electronic devices is also discussed.
ACKNOWLEDGMENTS

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CHAPTER 1: INTRODUCTION

The use of narratives as a mechanism of persuasive influence has been the focus of considerable research in the fields of health communication (Green & Clark; Green, 2006), entertainment education (Moyer-Guse & Nabi, 2010; Slater & Rouner, 2002), and advertising (Lien & Chen, 2013). Previous research about narrative persuasion has focused on the use of text-based stories to test the theory (Gerrig & Rapp, 2004; Appel & Richter, 2007). Recent research extends the theory to more vivid forms of narration, including comic books, animated films, and movie-based story telling (Jensen et al., 2011; Ingartua & Barrios, 2012; Moyer-Guse et al., 2012). The television industry has embraced the inclusion of awareness campaigns focusing on interracial relationships, acceptance of gay, lesbian, and bisexual orientation, and breast cancer awareness into top-rated American programs such as *Grey’s Anatomy* (Washington, 2012), *Glee* (Belcher, 2011), and *Sex and the City* (Fernandez-Morales, 2009). Comic books, in particular, have addressed issues of drug addiction (*Iron Man*; Stoddart, 2006), racism (*X-men*; Diebler, 2006), and hate crimes (*Green Lantern*; Palmer-Mehta, 2005).

The Centers for Disease Control and Prevention (CDC) implemented its own narrative persuasion campaign in 2011 to promote emergency preparedness to young audiences (M. Silver, personal communication, December 6, 2012; Silver, 2011). The core persuasive message of the campaign is preparation for a “zombie apocalypse” through development of a personal emergency plan and creating an emergency preparedness kit. Although a “zombie apocalypse” is a fictitious emergency scenario, preparation for such an emergency would ready the public “…for a hurricane, pandemic, earthquake, or terrorist attack” due to the similarity among emergency preparedness
types, according to Dr. Ali Khan, director of the CDC Office of Emergency Preparedness and Response (“Zombie Preparedness”, 2012).

For the zombie campaign, the CDC created a multi-media execution, which included zombie-related education materials such as a blog, social media buttons and badges, T-shirts, and the comic book *Preparedness 101: Zombie Apocalypse* (M. Silver, personal communication, December 6, 2012). At the heart of the campaign was *Preparedness 101: Zombie Apocalypse*, an example of narrative persuasion that appeared as a form of entertainment. The comic book’s focus was to strategically communicate emergency knowledge that could be useful in an array of emergency situations (M. Silver, personal communication, December 6, 2012).

Subtly, the story contains a specific persuasive goal aimed at young audiences about the formation of positive beliefs regarding emergency preparedness (M. Silver, personal communication, December 6, 2012). Beliefs are the building blocks that form a foundation of attitudes (Fishbein & Ajzen, 1975; Zanna & Rempel, 1988), which may guide behaviors (Fazio, 1986). The style of this comic book can be described as narrative communication because it allows receivers to focus on the storyline, rather than the embedded arguments in the message (Busselle & Bilandzic, 2008; Green & Brock, 2000). Comic books possibly go a step further; facilitating what may be described as *narrative persuasion*. Through identification with the main character, Todd, the audience must suspend their own beliefs about emergency preparedness to remain transported in the story (deGraaf et al., 2012).

Comic book readers are a diverse audience but few demographic surveys exist to analyze the audience as a whole. Often, individual publishing houses, such as DC
Comics, will hire outside firms to survey their internal audiences, but an established firm has conducted a generalized survey of comic book readers in more than a decade.

Political analyst and blogger, Brett Schenker, conducted a recent informal survey, of comic books readers on Facebook, in 2011. Schenker identified comic book readers on Facebook by their likes of comic book fan pages (Schenker, 2011). Through that methodology, he identified a sample of 1.21 million U.S. comic book readers. From that sample, he recorded demographic and sociographic information listed on the Facebook users’ personal profile. From the data, Schenker found that nearly 75% of the sample was male. In an analysis of age, the largest readership was among 18-30 years-olds, at 64.43% of the sample. Comic book readers 17 years old and younger comprised only 9.97% of the sample.

The CDC’s zombies campaign gained a strong behavioral response from its audience during the 2011 campaign through 2012. The CDC reported that keyword searches on its website in 2011, using the words zombie or zombies accounted for nearly 200,000 of the health information searches, more than three times the result for the next highest search, VIS (vaccine information statement) (“Top Keyword, 2012). The effect gained strength in 2012 with nearly 220,000 keyword searches using zombie or zombies that accounted for 46% of all searches in 2012 (“Top Keyword”, 2013).

The backdrop of a zombie apocalypse in narrative persuasion is a vivid choice among modern entertainment. Vividness appeals to some people all of the time because it is an element that is personally relevant to the receiver. In 2011, the zombie apocalypse was a common theme among various forms of entertainment including the top-rated television series The Walking Dead, literature such as Pride and Prejudice and
*Zombies* and *World War Z*, and popular video game franchises such as *Dead Rising*.

Parallels have been made in the news between violent attacks resulting from bath salts (a street drug with similar physical and psychological effects to LSD) usage and the “typical” zombie behavior (Carbone, 2012), which supports the transition of beliefs from vivid fictional content to real-world scenarios. Recently, residents of California, Michigan, Montana, and New Mexico experienced a crossover of zombies-as-fiction to a real-world local emergency when pranksters hijacked the emergency broadcast system of local television and radio stations to state that “the bodies of the dead are rising from the grave to attack the living” (Karoub & Brown, 2013).
CHAPTER 2: LITERATURE REVIEW

Narrative Persuasion

This thesis built upon the existing research of narrative persuasion. The research examined whether a comic book presentation of narrative persuasion would enhance character identification more than a text-only short story presentation of the same narrative. In the context of this research, the comic book presentation is considered to be a more vivid form of narrative. Information that may be described as vivid maintains attention and engages the imagination through three message attributes: a) it creates emotional interest, b) it is concrete and encourages the formation of mental images, and c) it is proximate to the reader in a “sensory, temporal or spatial way” (Nisbett & Ross, 1980, p. 45). Nisbett and Ross (1980) also argued that information vivid in nature, by incorporating concrete and colorful examples, would have stronger effects on judgments because vivid information is more accessible in memory (p. 44). Taylor and Thompson (1982) expanded on the attribute of emotional interest and posited that vivid information may be more emotionally arousing. Emotional arousal leads to better encoding of messages, which may lead to specific affective responses including: a) an impact on judgments (Cacioppo, Sandman & Walker, 1978), b) eliciting a specific emotion (Janis, 1967), and c) recall of selectively evaluative information (Love & Greenwald, 1978). Vividness may also be a product of a combination of message attributes and perceiver characteristics (Taylor & Thompson, 1982). That may lead to a personal experience of vividness that is dependent on unique needs and desires, as opposed to a global definition that remains static across audiences. What may be vivid to one audience may be pallid to another, and those conditions emerge from an interaction between communication
characteristics and perceiver attributes or needs (Taylor & Thompson, 1982).

Additionally, this research examined whether a comic book or text-only presentation of narrative persuasion will enhance character identification, a process where one’s belief system may be put aside temporarily to see the world through the character’s eyes (Busselle & Bilandzic, 2008). In determining a more effective method of persuasion, the traditional struggle to gain and maintain the audience’s attention may be circumvented through the use of narrative persuasion that encourages character identification (Green, 2006). Since the target messages are embedded within an entertaining package that encourages the receiver to let down his or her cognitive defenses in order to be transported into the story, the receiver does not have the opportunity to form the counterarguments to disconfirm the persuasive message within the story, thus allowing the message to be encoded into long-term memory (Moyer-Guse & Nabi, 2010).

Narrative communication differs from expository communication because the main attention is focused on the story rather than the argument being made (Nabi et al., 2007). Narrative transportation immerses the reader into the story. Researchers have found support for the use of narrative transportation to increase the effects of persuasion. In contrast to self-referencing tasks, narrative transportation invites readers to shut out their immediate world to experience the narrative world, thus reducing negative cognitive or affective responses to persuasive messages (Green & Brock, 2000). The reader’s connection with the story hinges on whether he or she is intrinsically interested in the genre of the story, such as a thriller or romance, or the quality of the writing (Slater & Rouner, 2002).
The topic of this thesis was the effect of narrative persuasion on the strength of belief toward target persuasive messages in the fictional narrative. Fictional narratives, in particular, invite readers to suspend their belief in order to be transported into the fictional world (Appel & Richter, 2007; Jensen et al., 2011). Research has traditionally explored the prevalence of strength of belief effects in expository messages, which attempt to persuade in a straightforward manner (Chaiken, S., 1980; Haugtvedt & Petty, 1992; Albarracin & Wyer, 2001). Recently, researchers have pursued the study of narrative communication as method of persuasion, with results that support the hypothesis that narrative communication not only increases strength of belief, initially, but that the effects may continue to increase over time (Appel & Richter, 2007; Jensen et al., 2011).

**H1:** Participants who consume a comic book fictional narrative will exhibit greater strength of belief for targeted messages, as compared to participants who consume the same narrative presented only as text.

The use of narrative, as opposed to expository, persuasion differs in the mechanisms in which receivers evaluate the arguments. While expository persuasion relies on attitude change based on logical consideration of the argument, narrative persuasion incorporates elements that allow receivers an alternative to critical evaluation. Given sufficient stimulus strength, along with a desire to identify with the characters and transport into the story world, receivers may be less likely to engage in negative counterarguments against the embedded persuasive messages in order to remain transported within the story, even when those persuasive messages diverge from the reader’s immediate beliefs. The cognitive effort used to engage in character
identification requires an immediate suspension of personal beliefs in order to experience the narrative world through the character’s eyes (Green & Brock, 2000). Finally, transportation may make the narrative experience more real through the process of character identification and cognitive commitment used to visualize the narrative world (Green & Brock, 2000). The combination of elements may reduce the cognitive capacity available to reject a persuasive message embedded in the narration.

While previous studies of narrative persuasion have used both text-only narratives such as short stories (Chaiken, 1980; Appel & Richter, 2007; Albarracin & Wyer, 2010), and visual narratives such as film (Moyer-Guse & Nabi, 2010; Igartua & Barrios, 2012), to explore strength of belief effects, there is little literature that explores a between-participants approach to find support for one medium over another (Chaiken & Eagly, 1983). Studies that measure strength of transportation, as a result of story vividness, may provide support for increased strength of belief effects in vivid narrative persuasion.

Extended Elaboration Likelihood Model (E-ELM)

The elaboration likelihood model (Petty & Cacioppo, 1986) is one of the foundational theories used to explain the effects of traditional forms of overt persuasion. Through two main routes of cognitive processing, the message receiver determines the value of the message and whether it should be assimilated into personal beliefs and attitudes. The central route of processing occurs when the message receiver put effortful consideration toward the content of the persuasive appeal. The peripheral route is a more superficial analysis of the message value based on qualities of the message presentation, such as source attributes and argument quality.
The extended elaboration likelihood model (E-ELM) builds on the foundation of ELM to explain the effects of persuasion that is not presented overtly, as is seen in entertainment education (Slater & Rouner, 2002). Entertainment education uses more covert methods to intertwine persuasive messages into a story. In ELM, central processing of the persuasive message hinges on the qualities of the argument itself to stand against the counter-arguments of the receiver in order to be accepted as part of their beliefs and attitudes (Petty & Cacciopo, 1986). E-ELM posits that the compelling nature of the story may reduce the awareness of the embedded persuasive message (Slater & Rouner), which may reduce possible counter-arguments to the message.

In the theoretical model of E-ELM, four qualities of the story may lead to increased absorption, or transportation, into the narrative world (Slater & Rouner, 2002). The first two qualities relate to the story including 1) the interest in the genre of the story, such as a historical romance or science fiction, and 2) the quality of the narrative (Slater & Rouner, 2002; Moyer-Guse, 2008). The third quality relates to the unobtrusiveness of the embedded persuasive message. If the persuasive message becomes too prominent within the story, the reader may find it difficult to remain absorbed in the fictional world (Slater & Rouner, 2002). Finally, the fourth quality is the reader’s perception of similarity (homophily) to the story characters will further the desire to remain absorbed within the narrative world.

The second hypothesis focuses on Slater and Rouner’s (2002) first quality of narratives that may lead to greater transportation. Their research extends the theoretical argument of supporting narrative persuasion to include interest in story genre, such as zombie fiction, as a quality that enhances personal relevance to the narrative. As
personal relevance to the story is heightened, the more vivid the message may become to the reader.

**H2:** Personal relevance of the story world will be positively associated to the vividness of the story.

**Character Identification**

*Identification* is a process by which readers can see the narrative world through the character’s eyes and create an experience that facilitates the adoption of the character’s perspective (Busselle & Bilandzic, 2008; Cohen, 2001). While the concepts of narrative transportation and identification are similar, they differ in the reader’s willingness to take on the role of the character. Transportation does not require the reader to take the perspective of the character (Moyer-Guse & Nabi, 2010). In identification, the reader will surrender self-awareness in order to experience the character’s perspective, emotions, and goals (Cohen, 2001).

Previous research has posited that consuming narratives is one of the mechanisms through which attitude change may occur (Green, 2006; Slater & Rouner, 2002). Further, social cognitive theory (Bandura, 2002) indicates that identification with role models, facilitated though observational learning, allows individuals to acquire new ways of thinking and behaving. The observation of role models may be extended to include fictional characters that are covertly observed via narratives (Bandura, 2002), and shared experiences and assertions of those role models (characters) may shift the reader’s own beliefs (Green, 2006).

According to Chaiken and Eagly (1983), broadcast modalities make communicator attributes in the persuasive message more vivid by providing more details
about communicator attributes such as voice, facial expressions, gestures, etc. Source likability may strengthen emotional interest in the message, satisfying one of Nisbett and Ross’ defining factors of vividness (1980). Chaiken and Eagly (1983) provided one of the few studies to examine persuasive effects between communication modalities of video, audiotape, and written text. In their study, the effect of source likability on persuasion was stronger in video and audiotape presentation and less pronounced in the written text message. Building on the empirical evidence produced in Chaiken and Eagly’s study may provide support for communication modality as a moderating variable of character identification.

Empirical evidence supports the role of identification in narrative persuasion. de Graff et al.’s (2009) study of perspective taking and character empathy positively correlated with readers’ story-related attitudes. In a similar study conducted by Busselle and Bilandzic (2009), empathetic emotions resulting from narratives related significantly with story-related attitudes. In the experience of perspective taking, the reader may develop the illusion of being the character and adjust one’s pre-existing experiences and attitudes to make them reflective of the character in order to maintain such an illusion (Cohen, 2001; Tan, 1994). First-person narratives are especially adept at facilitating the reader’s ability to accept the character’s perspective as his own through the transportation process (Oatley, 1999; Sanders & Redeker, 1996). That research leads to following hypothesis.

**H3:** Participants who consume the comic book fictional narrative will show a higher level of character identification, as compared to those the same narrative presented only as text.
According to E-ELM, the fictional narrative is a medium that may be ideally suited to further research because past research supports readers’ ability to recall true and false “facts” embedded within fiction stories. (Marsh, Meade & Roediger, 2003). E-ELM supports the theory that narratives have the potential to facilitate the acceptance of persuasive message because of reduced message scrutiny (Slater & Rouner, 2002). Whereas ELM implies critical thought processes are applied to the arguments through logical consideration, E-ELM posits that the more the reader is drawn in to the fictional world of the story, there is less motivation to react to the persuasive message with counter-arguments (Moyer-Guse & Nabi, 2010). The default state for people is to initially believe what they see and hear. It is only through a second process of effortful analysis and correction that they are able to “unbelieve” a false statement (Gilbert, Tarafodi, & Malone, 1992). In order to remain engaged with the narrative, readers might not pursue analysis and correction of a specific persuasive message, because doing so would shatter the illusion for the entire narrative experience.

It may be argued that as the vividness of the narrative increases, the process of character identification becomes more effortless. Character identification may reduce counter-argumentation and may further facilitate the acceptance of the character’s belief system as one’s own.

**H4:** As character identification increases, the less likely participants will engage in counter-arguments toward the persuasive message.
CHAPTER 3: METHODOLOGY

Participants viewed a comic book or text-only version of the same fictional narrative. The comic book condition utilized *Preparedness 101: Zombie Apocalypse*, a comic book published by the CDC Office of Emergency Preparedness and Response (see Appendix C). In that condition, only character speech or transitional narratives between storylines provided text elements. Full color illustrations provide visuals of the environment and action elements of the narrative.

The text-only condition utilized the accessible text version of the *Preparedness 101: Zombie Apocalypse*, also published by the CDC (see Appendix D). The condition included text descriptions of the environment and described actions that the characters engage in during the course of the story. The text-only narrative was adapted from a movie-style script, where environment and actions were described as stage directions, to a short story style.

Both versions of the stimuli were adapted for the experiment to remove information that identified the narrative were published by the CDC. Identifying information was removed to minimize source expertise acting as a confounding variable in participants’ responses to questions about the narrative. Also, the narratives were edited to remove storylines that were unrelated to the main character. Finally, the accessible text version of the story was adapted from a movie-script style to a style more similar to a short story, which would provide a comparable narrative experience to the participants.
Both versions of the stimuli were presented in digital format on computer screens. That method of information distribution was intended to replicate the mode in which the CDC primarily distributed the materials to its targeted audiences.

Subjects

Subjects were 49 communication students from a large Midwestern university who received participation credit toward their course grade. Male participants (N=36) comprised the majority of the participants, as well as participants 23-years or younger (N=38). Data from one subject was discarded because they did not complete the study.

Design

This experiment examined strength of belief effects in relation to reading the same persuasive messages embedded in either a comic book or text-only presentation of a fictional narrative. Participants were randomly assigned to view one of two stimuli and then complete a series of questions and statements. After reading the randomly assigned version of the stimuli, participants completed a strength-of-belief measure. That measure gauged their strength-of-belief about the information provided in either the comic book or text-only fictional narrative (to test H1). All items were measured on 7-point Likert Scales, wherein participants rated their level of (dis)agreement with the statements. The measure contained five statements that are true, according to the stimulus (Target Statements), and five statements that were false (Anti-Target Statements). Five statements about information that was not addressed in the stimulus (Non-Target Statements) were used to “mask” the target statements by providing statements for which truthfulness cannot be assessed as a function of the information provided in the stimulus. Participants were asked to rank their level of belief about the statements, and responses
were scored separately (from 1 to 7) and summed to form a strength of belief scale (to
test H1). The second series of questions and statements was administered immediately
after the first series. It was comprised of 5-point and 7-point Likert Scales, including
statements which participants ranked their levels of (dis)agreement. The items on the
second questionnaire assessed personal relevance (to test H2), story vividness (to test H2
and H3), character identification and experience taking (to test H3 and H4), counter-
arguing (H4), and perceived levels of narrative transportation (as a manipulation check).

Procedure

Participants entered the lab and were randomly assigned to read either a comic
book or a text-only presentation of a fictional narrative published by the CDC Office of
The fictional narrative told the story of how the main character, Todd, prepared and
responded, with information provided by the CDC, to a zombie outbreak in his
hometown. Both stimuli contained directions to visit the CDC website during an
emergency, how to create an emergency kit, and information about why it is important to
have an emergency plan.

After consuming either the comic book or text-only stimulus, participants
completed a strength-of-belief measure that assessed the direction and strength of several
beliefs related to the persuasive messages embedded in the comic book or text-only
stimulus.

After completing the strength of belief measure, participants completed a second
measure, which assessed the strength of narrative transportation and character
identification for the comic book or text-only stimulus. The measures were completed by
all participants and included questions about character identification and narrative transportation.

Dependent Variables

*Strength-of-belief.* Participants completed a beliefs tool measuring directionality of belief (agree/disagree with statement) and strength of belief for certain behaviors emulated in the stimuli (see Appendix A). Participants completed six-item 7-point Likert Scales (1 = *strongly disagree* to 7 = *strongly agree*) related to persuasive messages embedded in the stimuli.

Target items included 1) Visiting the CDC website for information about local emergencies, 2) Having an emergency plan before an emergency happens, 3) When to use emergency supplies, 4) Visiting the CDC website for a list of emergency supplies to stock, and 5) When to make an emergency kit (see Appendix A).

*Vividness.* A two-item, 5-point Likert Scales (1 = *not at all* to 5 = *very much*), adapted from Collins et al. (1988), measured participants’ perception of the stimuli’s vividness. The first item provided information concerning the participants’ perceptions of the story vividness in a general context. The second item allowed participants to identify their personal assessment of the story vividness in relation to their own reading experience (see Appendix B).

*Personal Relevance.* Participants responded to a three-item 7-point Likert Scale, (1 = *strongly disagree* to 7 = *strongly agree*), measuring the strength of personal relevance to the zombie story (see Appendix B).

*Character Identification.* A six-item, 7-point Likert Scale (1 = *strongly disagree* to 7 = *strongly agree*), was adapted from the items used by Cohen (2001).
measure empathy for the main character, Todd, and understanding for his actions. The six items were adapted to short stories and comic books (see Appendix B).

**Experience Taking.** A four-item, 7-point Likert-Scale (1 = *strongly disagree* to 7 = *strongly agree*), was adapted from the items used by Kaufman and Libby (2012). The items measured the participants’ ability to place themselves into the perspective of the main character, Todd (see Appendix B).

**Counterarguing.** A two-item, 7-point Likert Scale (1 = *strongly disagree* to 7 = *strongly agree*), were adapted from the items used by Moyer-Guse and Nabi (2010). The items measure participants’ (dis)agreement with the presented message and whether they found flaws in the way the message was presented.

**Manipulation Check.** A four-item, 7-point Likert Scale (1 = *not at all* to 7 = *all of the time*), adapted from Green and Brock (2000) was utilized to gauge participants’ levels of perceived narrative transportation.
CHAPTER 4: RESULTS

Strength-of-belief. An independent variables t-test analyzed the effect of experiment conditions on target, anti-target, and non-target measures. Target measures included statements that were directly stated in the fictional narratives. Five statements were included, but data for one statement was not captured for the comic book condition. All participant data for that statement was removed. For the target measure, significant differences in strength-of-belief between the comic book (M=5.51, SD=0.97) and text-only (M=5.45, SD=1.07) conditions were not supported; t(46)=0.21, p>0.05.

The anti-target measure included five statements that were opposite of those directly stated in the fictional narratives. Similarly, no significant difference was found for the anti-target measure between the comic book (M=2.84, SD=0.87) and the text-only (M=2.80, SD=0.83) stimuli; t(46)=0.18, p>0.05.

Finally, the non-target measure included statements that were related to the messages in the fictional narratives but were not explicitly stated. Participants exhibited no significant difference in strength-of-belief between the comic book (M=6.68, SD=4.00) and text-only (M=5.70, SD=0.68) conditions, t(46)=1.21, p>0.05.

The results of the t-test analysis for all three measures indicated no support for H1, which stated that participants in the comic book condition would exhibit more pronounced strength of belief for the embedded persuasive messages than the text-only condition.
Table 1.

*Independent variables t-test of Strength-of-Belief between comic book and text-only conditions*

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<tr>
<td>SoBNonTarget</td>
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Further analysis revealed no gender differences between conditions for target and anti-target measures. Female participants did exhibit significant differences in the non-target measure between the comic book (M=6.5, SD=0.35) and text-only (M=5.70, SD=0.70) condition, t(12)=2.14, p=0.05.

No age differences were exhibited within participants 23-years and younger or 24-years and older between conditions for the target, anti-target, or non-target strength of belief measures.

*Personal Relevance X Vividness.* The personal relevance included three items asking participants how relevant they thought zombies were to them. The measure was reliable with a Cronbach’s alpha of (0.798). The vividness measure included two items asking participants if they felt the fictional narratives were generally, or personally, vivid.

There was no significant correlation found between personal relevance measures and vividness measures, r(46)=-0.13, p>0.05, thus H2 cannot be supported.

Further analysis did not find significant correlations between personal relevance and vividness measures within males, r(34)=0.17, p>0.05, or females, r(12)=0.07, p>.05.
In addition, no significant correlation was found between personal relevance and vividness measures within participants 23-years and younger, r(36)=0.18, p>0.05, and 24-years and older, r(8)=0.14, p>0.05.

**Character Identification.** An independent variables t-test compared strength of character identification and experience taking between the comic book and text-only conditions. A six-item character identification measure, reliable with a Cronbach’s alpha of 0.840, included statements of how the participants identified with the main character and fictional narrative along different psychological dimensions. Participants reported stronger character identification in the text-only (M=5.46, SD=0.52) condition, when compared to the comic book (M=4.97, SD=0.69) condition, t(46)=−2.76, p<0.01.

A four-item measure included additional statements of how participants identified with the main character and the fictional narrative along different psychological dimensions. No significant difference was found in experience taking between the comic book (M=4.68, SD=0.69) and text-only (M=4.66, SD=0.65) condition, t(46)=0.13, p>0.05. Those results indicate no support for H₃.
Table 2.

Independent variables t-test of Character Identification and Experience Taking between comic book and text-only condition

<table>
<thead>
<tr>
<th></th>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
</tr>
<tr>
<td>Character Identification</td>
<td>1.683</td>
<td>.201</td>
</tr>
<tr>
<td>Experience Taking</td>
<td>.104</td>
<td>.748</td>
</tr>
</tbody>
</table>

Further analysis revealed gender differences in character identification. Male participants showed greater character identification in the text-only (M=5.40, SD=0.39) as compared with the comic book (M=4.86, SD=0.71) condition, t(29)=-2.84, p<0.05. No significant difference in experience taking was observed within male participants between the comic book (M=4.72, SD=0.75) and text-only (M=4.47, SD=0.69) conditions, t(32)=1.03, p>0.05.

Table 3.

Independent variables t-test of Character Identification and Experience Taking within males between comic book and text-only conditions

<table>
<thead>
<tr>
<th></th>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
</tr>
<tr>
<td>Character Identification</td>
<td>5.418</td>
<td>.026</td>
</tr>
<tr>
<td>Experience Taking</td>
<td>.050</td>
<td>.824</td>
</tr>
</tbody>
</table>

Female participants exhibited no significant difference in character identification between the comic book (M=5.50, SD=0.36) and text-only (M=5.55, SD=0.68)
condition, t(12)=-0.14, p>0.05. A difference, nearing significance, was observed in experience taking within female participants between the comic book (M=4.50, SD=0.29) and text-only (M=4.95, SD=0.48) condition, t(10)=−2.14, p=0.59.

In addition to gender differences, age differences were also observed in character identification between conditions. Participants 23-years and younger exhibited a stronger character identification in the text-only (M=5.40, SD=0.48) condition, as compared to the comic book (M=4.94, SD=0.75) condition, t(35)=−2.32, p<0.05. No significant differences in experience taking were observed within participants 23-years and younger between the comic book (M=4.72, SD=0.75) and text-only (M=4.67, SD=0.62) condition, t(36)=0.24, p>0.05.

Table 4.

Independent variables t-test of Character Identification and Experience Taking within participants ≤23 years between comic book and text-only conditions

<table>
<thead>
<tr>
<th></th>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
</tr>
<tr>
<td>Character Identification</td>
<td>Equal variances assumed</td>
<td>4.121</td>
</tr>
<tr>
<td>Experience Taking</td>
<td>Equal variances assumed</td>
<td>.801</td>
</tr>
</tbody>
</table>

No significant differences were observed within participants 24-years and older in character identification or experience taking between the comic book and text-only condition.

Character identification X Counter-arguing. For counter-arguing, a two-item measure included statements of how participants disagreed with what was said, or how
they found flaws in the fictional narrative. No significant relationship was found between character identification and counter-arguing, $r(46)=-0.084$, $p>0.05$. Similarly, no significant relationship was found between experience taking and counter-arguing, $r(46)=0.038$, $p>0.05$. Those results indicate no support for $H_4$.

Further analysis of gender differences indicated no support for $H_4$ within male participants between character identification and counter-arguing, $r(32)=0.11$, $p>0.05$, or experience taking and counter-arguing, $r(32)=0.069$, $p>0.05$. Similarly, no relationship was found within female participants between character identification and counter-arguing, $r(12)=-0.18$, $p>0.05$, or experience taking and counter-arguing, $r(12)=0.15$, $p>0.05$.

An analysis of age revealed a negative correlation, approaching significance, between character identification and counter-arguing within participants $>23$-years, $r(8)=-0.56$, $p=0.10$. That indicates that, among this demographic subgroup, when character identification increases, the amount of counter-arguing decreases.
Table 5.

*Correlation within participants >23-years between Character Identification, Experience Taking, and Counter-arguing*

<table>
<thead>
<tr>
<th></th>
<th>Character Identification</th>
<th>Experience Taking</th>
<th>Counter-arguing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Character Identification</strong></td>
<td>Pearson Correlation</td>
<td>.275</td>
<td>-.555</td>
</tr>
<tr>
<td><strong>Experience Taking</strong></td>
<td>Pearson Correlation</td>
<td></td>
<td>-.10</td>
</tr>
<tr>
<td><strong>Counter-arguing</strong></td>
<td>Pearson Correlation</td>
<td>-.555</td>
<td>.10</td>
</tr>
<tr>
<td><strong>Sig. (2-tailed)</strong></td>
<td>.441</td>
<td>.978</td>
<td>.096</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>
CHAPTER 5: DISCUSSION

Findings suggest narrative persuasion may not be equally effective when factors of gender, age, or communication modality are taken into account. The presentation of two versions, comic book and text-only, of the fictional narrative in a digital mode replicated the primary distribution method of digital download utilized by the CDC. While hypotheses predicted that the comic book stimulus would yield stronger results in strength-of-belief and story-related variables, there were little differences, as a whole, between the two conditions.

No significant differences were observed in strength of belief measures between the comic book and text-only condition ($H_1$). That result was consistent, as a whole, and when further analysis examined differences within genders and age groups. This may indicate when the stimuli are viewed digitally, the mode of the narrative may play a key role in the perceived vividness of the story. This study presented the stimuli on a computer because the CDC primarily distributed the comic book and text-only fictional narrative through its website. Though the comic was available as a digital download from the CDC website, it was not created as a web-optimized publication. The comic book was created as a traditional print publication that was uploaded to the website. When transposing the publication to a digital mode, readability of the publication possibly became more difficult for several reasons.

First, the actual size of the page, when viewed on a computer screen, became noticeably smaller than the print publication of the comic book. That may have negatively impacted participants’ perceived vividness of the comic book because the text was significantly smaller than the text-only stimuli. The increased level of reading
difficulty may have hindered participants’ ability to transport into the story because of the additional cognitive effort required to read the text contained within the comic book. Kretzschmar et al. (2013) found that, among participants 18 to 34 years old, books were the most readable medium, when compared to digital modes or e-readers or tablets. In addition, younger readers who expressed a preference for books found the book reading experience to be more “pleasant” than e-readers and tablets.

Second, fonts that are not intended for reading in digital mode, such as the cursive-type font used in the comic book stimuli, can negatively impact users’ web experience (Neilsen and Loranger, 2006). Magazine-quality printing can produce 3,000 dots per inch (dpi), while the average computer monitor produce 80-100 dpi, meaning that a crisp, clean text on paper may be significantly more difficult to read in digital mode (Neilsen and Loranger, 2006). Import of the comic book images into media lab, the software utilized during this study, significantly reduced pixel quality that may have made the text more difficult to read. In contrast, the text-only stimulus was added to media lab directly, as opposed to an uploaded document. Media lab transposed the text into a default sans serif font that was easily readable at more than 20 points.

Third, there was no white space between individual cells of the comic book to clearly indicate where one ended and the other began. That may have created difficulty in following the intended progression of the text narrative. In the digital mode of presentation, adding white space between content on the same page creates visual frames. Strategic use of white space creates heightened web usability because it breaks content into manageable pieces and guides users through the progression on content (Neilsen and Loranger, 2006).
Finally, the recall of information presented in digital and print modality may generate differing results. Magee (2012) found that the recall of information from a promotional magazine was significantly higher in a print version, as opposed to an online version of the same magazine. Additionally, the participants 18 to 30 years old in the study exhibited the largest difference in recall, favoring of the print version over the digital version of the promotional magazine. The results of that study may provide a possible explanation to different results in this study if the stimuli were presented in a print, rather than digital, mode.

In H₂, there was no correlation, as a whole, between personal relevance and perceived vividness of the fictional narratives. In addition, further analysis did not reveal significant differences when personal relevance and perceived vividness were correlated within gender, age groups, or stimuli conditions. That result may provide further support to indicate that perceived vividness was affected by the digital mode of the stimuli presentation. While print publication of comic books often include asymmetrical panel design, digital comics incorporate distinctively different panel layouts.

In a review of the winners of the Eisner Award for Digital Comics from 2007 through 2012 (“Eisners current info”), panel layout of digital comics fell into two categories. The first category was a landscape orientation with two even-height rows. The number of cells in each row may differ, but the height of the rows remained consistent within the page and across pages in the issue. Also, white space was used between cells to create distinct separation between cells. The second category was a vertical scrolling format that showed one panel at a time as the user scrolled down the computer screen. All panels within a chapter were included in a single scroll.
Both of the formats prominent among recent Eisner award winners differ from the comic book stimuli used in this study. *Prepared 101: Zombie Apocalypse* was presented in a portrait orientation with varying layout patterns throughout the issue and used no white space between cells. The distinct difference between award-winning digital comic design and the print-style design of the comic book stimulus may indicate that there are certain techniques used in digital design to enhance readability, which, in turn, may increase perceived vividness in a digital mode.

H₃ predicted that character identification would be experienced more strongly in the comic book condition. Instead, character identification was experienced more strongly in the text-only condition. A possible explanation is that in the absence of cues that overtly indicate attributes of the main character, such as gender, race, age, or group membership, it may be easier to identify with the character. In Kaufman and Libby’s (2013) studies of experience-taking, they found when the narrative delayed revelation of a character’s outgroup membership, participants exhibited stronger experience-taking and more positive attitudes to the outgroup than when the character’s outgroup membership was revealed early in the narrative.

More specific analysis of character identification and experience taking between IV conditions further supported heightened experience in the text-only condition. Among male participants, there was significantly stronger character identification in the text-only than the comic book condition. There was no significant difference within female participants in character identification. That result may indicate that while the text-only condition provided a cue of identification of gender between the male participants and
male main character, the participants could insert their other unique physical and personality traits onto the main character to manufacture perceived similarity.

Female participants exhibited stronger experience taking in the text-only condition, as compared with the comic book condition. Experience taking measures were related to empathizing with the character, which may explain the significant results when compared with character identification. Those results were consistent with Potkay and Potkay’s (1984) study of comic strips, in which participants showed strongest identification with same-sex characters but females showed stronger identification than males with opposite-sex characters; and Goldstein and Winner’s (2012) findings that sympathy for characters by females is other-oriented in theatrical performances.

In addition to gender differences, significant differences between conditions were exhibited within age groups. The mean age of participants was 23 years old. In an analysis of participants 23-years and younger, the text-only condition elicited stronger character identification than the comic book condition. The text-only condition gave cues that the main character was younger, such as he had a girlfriend instead of a spouse, which may have made the character appear more similar but allow participants to fill-in-the blank on other characteristics that may have been visually indicated in the comic book condition.

In H4, there was no significant correlation between character identification and counter-arguing, or experience taking and counter-arguing. Further analysis revealed a negative correlation, approaching significance, between character identification and counter-arguing within participants older than 23-years. Older participants did not exhibit significant differences in character identification between the comic book and the
text-only condition, but did exhibit negative correlation between character identification and counter-arguing. A possible explanation of the result may be that older participants assumed similar group membership with the character, in relation to age, because textual cues indicated that the character owned a home and was in a monogamous relationship. Previous research found that character identification reduced counterarguing (Moyer-Guse and Nabi, 2010) and, more specifically, similarity of group membership between the character and reader enhanced the character identification experience (Kaufman and Libby, 2012).
CHAPTER 6: CONCLUSION

This study provides support for previous research published in the area of narrative persuasion. In addition, new questions arose from the study results that may guide future research. In context of character identification, results are consistent with previous research that indicates stronger identification is present in text-only narratives. Those results suggest that when minimal characteristic cues are provided, the reader may fill in the blanks with personal characteristics, thereby creating greater similarity with the story character and stronger identification.

The lack of significant difference in perceived vividness between the comic book and text-only conditions raises questions not answered in this study. First, would the presentation of the stimuli in a print format achieve different results? This is a practical question that should be answered for organizations that create publications utilizing traditional print design methods, but distribute the publication in a digital mode. That question will become more important as mobile and responsive design become more prominent with the increasing adoption of smartphone and tablet technology.

Previous research has shown that younger audiences self-report a preference for digital versions of magazines, but information recall remains stronger for print (Kretzschmar, 2013). Media-multitasking may be one specific challenge in the recall of persuasive messages in digital communication. A Kaiser Family Foundation study found that 29% of 8- to 18-year-olds multitasked media use and that number of multitasking youth is continuing to increase (Rideout et al., 2010). Multitasking may divide cognitive resources available to encode messages into memory, so finding methods to enhance
motivation to process digital messages may encourage users to apply more of their
cognitive resources to the task and, in turn, improve message recall (Srivastava, 2013)
and desired attitude change. Tailoring the message to the specific audience by
increasing relevance (Srivastava, 2013) or adding interactive tasks (Evans & Gibbons,
2007) may increase cognitive effort applied to the message.

Another question for future research is how the salience of source cues in a comic
book, such as credibility, similarity and likability, may favor heuristic processing of
embedded persuasive messages. Chaiken and Eagley (1983) found that source cues
triggered heuristic processing in video and audiotaped modalities, but no test in the comic
book mode has been found. A comic book may be a hybrid mode because it incorporates
the visual elements similar to a broadcast mode, but also contains a complex written
mode. As a medium with a diverse and loyal audience, the specific study of comic books
would benefit numerous fields including health communication, public relations,
advertising, marketing, and education.

The study of digital modes as methods of distribution for communication has
practical implications for mass communication. Distributing publications through an
organization’s website, social media channels or through an email campaign may offer a
lower-cost alternative to print-and-mail campaigns. Making small, specific changes to
adapt a print product to a digital presentation mode may increase message recall
significantly. In the case of this study’s comic book stimuli, adding adaptive design that
may recognize different mediums such as smartphone, tablet, or desktop computer may
significantly increase readability by changing the font type and size and reducing the
amount of content provide in each screen view. In addition, adding interactive elements
that complement the digital product, such as embedded video, may increase cognitive effort used to encode the target messages (Evans & Gibbons, 2007).

It is important to note certain limitations that occurred during this study. First, the stimuli were adapted from existing materials published by the CDC Office of Emergency Preparedness and Response. While minor adaptations were made to account for a similar story experience, it was necessary to maintain the content as designed by the CDC. No alteration could be made that would alter the primary story or the persuasive messages embedded within the story.

The second limitation was in participant recruitment. The study was conducted during the summer session, which has a historically low enrollment rate for participant pools. Forty-eight participants completed the study, but the pool had significantly more males enrolled during the time of the study. At the close of the study, the ratio of male-to-female participants was just over 2:1. Future rounds of this study should yield a gender ratio more consistent with the population of the university.

Several opportunities should be considered for future research. Future studies may test persuasion effectiveness through the manipulation of the presentation modes such as different devices, content design, and source cues.
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## APPENDIX A: STRENGTH OF BELIEF MEASURE

When an emergency happens, I should visit the CDC’s website to find more information.  

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Somewhat Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I should have renter’s insurance to cover loss from a flood.  

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Somewhat Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I don’t need to keep emergency supplies for my pet.  

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Somewhat Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I should have an emergency kit available at all times.  

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Somewhat Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I should go to my basement during a tornado.  

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Somewhat Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

When an emergency happens, I should find a CDC shelter immediately.  

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Somewhat Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I should make an emergency plan before an emergency happens.  

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Somewhat Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I shouldn’t touch a down power line.  

<table>
<thead>
<tr>
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<th>Somewhat Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is not necessary to check the CDC’s website for information updates during an emergency.  

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Somewhat Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I should print out the CDC’s list of items to include in an emergency kit.  

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Somewhat Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I should receive a flu vaccine every year.  

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Somewhat Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Belief Statement</td>
<td>1 Strongly Disagree</td>
<td>2 Disagree</td>
<td>3 Somewhat Disagree</td>
<td>4 Neither Agree</td>
<td>5 Somewhat Agree</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------</td>
<td>---------------------</td>
<td>------------</td>
<td>---------------------</td>
<td>----------------</td>
<td>------------------</td>
</tr>
<tr>
<td>I don't need to keep extra medication in an emergency kit.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I should take extra supplies with me to a CDC emergency shelter.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I should always have extra blankets in my car during winter months.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I shouldn’t take my pet to a CDC emergency shelter.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Target Belief Statement
2 Non-Target Belief Statement
3 Anti-Target Belief Statement
APPENDIX B: DEPENDENT VARIABLES MEASURE

Character Identification

While I was reading the short story, I felt as if I was part of the action.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

I think I have a good understanding of Todd.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

I tend to understand the reasons why Todd does what he does.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat</th>
<th>Agree</th>
<th>Strongly Agree</th>
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</table>

While reading the short story I could feel the emotions Todd portrayed.

<table>
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<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat</th>
<th>Agree</th>
<th>Strongly Agree</th>
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</table>

At key moments in the short story, I felt I knew exactly what Todd was going through.

<table>
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<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat</th>
<th>Agree</th>
<th>Strongly Agree</th>
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</table>

While reading the short story, I wanted Todd to succeed in achieving his goals.

<table>
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<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat</th>
<th>Agree</th>
<th>Strongly Agree</th>
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Experience Taking

In the story, I found myself thinking what Todd was thinking.

<table>
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<tr>
<th>Strongly Disagree</th>
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<th>Somewhat</th>
<th>Neither Agree nor Disagree</th>
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I could empathize with Todd’s situation in the story.

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<tr>
<th>Strongly Disagree</th>
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<th>Neither Agree nor Disagree</th>
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</table>

I understood the events of the story as though I were the character in the story.

<table>
<thead>
<tr>
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<th>Somewhat</th>
<th>Neither Agree nor Disagree</th>
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<th>Agree</th>
<th>Strongly Agree</th>
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</table>

I was not able to get inside the Todd’s head.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat</th>
<th>Neither Agree nor Disagree</th>
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<th>Agree</th>
<th>Strongly Agree</th>
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</table>
Counter-arguing

While reading the story, I sometimes found myself thinking of ways I disagreed with what was being presented.

<table>
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<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
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I found myself looking for flaws in the way information was presented in the story.

<table>
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<tr>
<th>Strongly Disagree</th>
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<th>Somewhat Disagree</th>
<th>Neither Agree nor Disagree</th>
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<th>Strongly Agree</th>
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Vividness

In general, to what extent was this message vividly presented?

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<tr>
<th>Not At All</th>
<th>Very Little</th>
<th>A Moderate Amount</th>
<th>Mostly</th>
<th>Very Much</th>
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</thead>
</table>

To you, personally, to what extent was this message vividly presented?

<table>
<thead>
<tr>
<th>Not At All</th>
<th>Very Little</th>
<th>A Moderate Amount</th>
<th>Mostly</th>
<th>Very Much</th>
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Personal Relevance

I like stories that feature zombies.

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<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
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I felt that the zombie story I read was relevant to me.

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<tr>
<th>Strongly Disagree</th>
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<th>Somewhat Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
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</table>

The zombie story I read was written for people like me.

<table>
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<tr>
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<th>Disagree</th>
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<th>Neither Agree nor Disagree</th>
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<th>Agree</th>
<th>Strongly Agree</th>
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</table>
Manipulation Check (Transportation)

I was mentally involved in the narrative while reading it.

<table>
<thead>
<tr>
<th>Not At All</th>
<th>Rarely</th>
<th>Some of the time</th>
<th>About half of the time</th>
<th>Frequently</th>
<th>Most of the time</th>
<th>All of the time</th>
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</table>

I wanted to learn how the short story ended.

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<th>Not At All</th>
<th>Rarely</th>
<th>Some of the time</th>
<th>About half of the time</th>
<th>Frequently</th>
<th>Most of the time</th>
<th>All of the time</th>
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The short story affected me emotionally.

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<th>Not At All</th>
<th>Rarely</th>
<th>Some of the time</th>
<th>About half of the time</th>
<th>Frequently</th>
<th>Most of the time</th>
<th>All of the time</th>
</tr>
</thead>
</table>

I found myself thinking of ways the short story could have turned out differently.

<table>
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<tr>
<th>Not At All</th>
<th>Rarely</th>
<th>Some of the time</th>
<th>About half of the time</th>
<th>Frequently</th>
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<th>All of the time</th>
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</thead>
</table>
APPENDIX C: COMIC BOOK STIMULUS

PREPAREDNESS 101:
ZOMBIE PANDEMIC
I get to pick the next movie! That one's going to give me nightmares.

Oh you're such a baby. It wasn't that scary. You know that kind of stuff would never really happen.
WELL I’M GOING TO TRY AND GET SOME SLEEP...

DON’T STAY UP TOO LATE.

ALRIGHT, MAX AND I WILL BE ON THE LOOKOUT FOR THE BOOZEYMAN, HA HA.

STAY TUNED FOR CHANNEL 2 NIGHTLY NEWS

VERY FUNNY.

The End

CLICK

NEWS
IN OTHER NEWS, SEVERAL PEOPLE HAVE BEEN HOSPITALIZED AFTER A STRANGE VIRUS BEGAN SPREADING RAPIDLY THROUGH THE SOUTHEAST...

SCIENTISTS HAVEN'T IDENTIFIED THE VIRUS YET, BUT SYMPTOMS INCLUDE SLOW MOVEMENT, SLURRED SPEECH, AND VIOLENT TENDENCIES...

THE CENTERS FOR DISEASE CONTROL AND PREVENTION IS RECOMMENDING THAT PEOPLE DISTANCE THEMSELVES FROM ANYONE DISPLAYING THESE SYMPTOMS.

THEY ARE ALSO RECOMMENDING FAMILIES GATHER EMERGENCY SUPPLIES AND MAKE PLANS IN CASE THEY ARE ASKED TO EVACUATE...

EMERGENCY SUPPLIES, EVACUATION... WHAT'S GOING ON MAX?

http://emergency.cdc.gov

YOU CAN GET MORE INFORMATION AT EMERGENCY.CDC.GOV
LET'S CHECK THE INTERNET...

A ZOMBIE VIRUS?

LET'S CHECK THE CDC'S WEBSITE.

OKAY, MAX... LET'S SEE WHAT WE CAN GATHER UP.

THIS DOES NOT LOOK GOOD, MAX.

AN EMERGENCY PREPAREDNESS KIT, EH? I BETTER PRINT THIS OUT...
NEXT, THE PALS GO DOWN TO THE BASEMENT.

MAN I FORGOT I HAD THIS. IT USED TO BE MY DAD'S.

HE WAS ALWAYS LISTENING TO THE WEATHER REPORT WHEN STORMS CAME THROUGH. GUESS WE'LL ADD IT TO THE SUPPLIES!

WELL IT LOOKS LIKE WE'VE GOT ALMOST EVERYTHING, MAX... WATER, FOOD, RADIO, FLASHLIGHT...

OH YEAH, BUDDY. I GUESS I NEED TO ADD SOME OF YOUR STUFF TOO.

URRRRRRRRRR!
WELL THAT SHOULD DO IT...

LET'S SEE IF THERE HAVE BEEN ANY NEW DEVELOPMENTS.

WOW, HAH... LOOKS LIKE THEY'RE EVERYWHERE!

THUMP!

HUMP!

HUMP!

MEEFEOOOOW WRR!

MEEFEOOOOW WRR!

MEEFEOOOOW WRR!

MEEFEOOOOW WRR!

MEEFEOOOOW WRR!

MEEFEOOOOW WRR!

MEEFEOOOOW WRR!

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MEEFEOOOOW WRR!

MEEFEOOOOW WRR!

MEEFEOO... WHAT IN THE... ?!
LET'S SEE WHAT ALL THE RACKET IS ABOUT.

HEEOOOWWWW!!!

PPPPF!!

SNOWBALL, WHAT ARE YOU DOING?

ROOOOOOO!

DID MRS. CLEMENTS LET YOU OUT AGAIN? YOU KNOW YOU'RE NOT SUPPOSED TO RUN OFF LIKE THAT.

ROO!

MAX, LEAVE SNOWBALL ALONE!

JUST THEN THE DOLL SOUND OF SHUFFLING AND MOANING CAN BE HEARD FROM OUTSIDE.

NOW WHAT?

HELLO...?

UH... MRS. CLEMENTS...?

UHHHHHHH!!
UH... MRS. CLEMENTS YOU DON'T LOOK SO GOOD.

MAYBE YOU SHOULD GO LIE DOWN AND I'LL BRING SNOWBALL BACK FOR YOU.

IT'S ME TODD, YOUR NEIGHBOR! YOU REALLY DON'T LOOK WELL! WHY DON'T YOU GO BACK HOME...

AND I'LL BRING SNOWBALL BY IN THE MORNING!

GROWWW!!
WHAT IN THE WORLD IS GOING ON DOWN THERE?

UHHHH! SORRY...!

SLAM!

LATER, MRS. CLEMENTS!

URP!

LET GO!

I'M PRETTY SURE MRS. CLEMENTS WAS TRYING TO ATTACK HER OWN CAT, AND SHE JUST NEARLY GOT ME!

NO, I'M SERIOUS THERE'S A WEIRD VIRUS GOING AROUND, LOOK AT THE NEWS...

WHAT ON EARTH ARE YOU TALKING ABOUT? MRS. CLEMENTS IS A SWEET OLD LADY SHE WOULDN'T HURT A FLY. I THINK YOU GOT A LITTLE TOO INTO THAT MOVIE.

TOOO...?
QUARANTINE EFFORTS HERE IN RALEIGH HAVEN'T DONE MUCH TO CONTAIN THE SPREAD OF THE VIRUS. OVER HALF THE CITY IS NOW INFECTED AND NEW CASES ARE SHOWING UP THROUGHOUT THE SOUTHEAST.

BACK TO YOU IN THE STUDIO, SAMANTHA.

THIS IS A VERYgrave AND DANGEROUS SITUATION. THE GOVERNOR HAS DECLARED A STATE OF EMERGENCY AND HAS ACTIVATED THE NATIONAL GUARD. THE GOVERNOR IS URGING EVERYONE WHO IS NOT SHOWING SYMPTOMS TO STAY IN THEIR HOMES AND KEEP THEIR DOORS LOCKED.

NEWS

THE CDC IS WORKING WITH LOCAL HEALTH DEPARTMENTS ON A VACCINE. UNTIL THEN... BUNKER DOWN AND DON'T GO OUTSIDE UNLESS YOU HAVE TO.

WHAT?!

I THOUGHT YOU SAID STUFF LIKE THIS ONLY HAPPENED IN THE MOVIES! WHAT IS GOING ON TOOD?!

I DON'T KNOW BUT IT SOUNDS LIKE WE BETTER SIT TIGHT. MAX AND I GOT SOME SUPPLIES TOGETHER EARLIER.

MINUTES LATER, TOOD AND JULIE HAVE SET UP SLEEPING BAGS AND TUNED THE RADIO.

MAYBE WE SHOULD JUST SLEEP DOWN HERE TONIGHT.

...WARNINGS HAVE BEEN ISSUED FOR DOZENS OF COUNTIES ABOUT STAYING INSIDE AND AREA HOSPITALS ARE BEING OVERFLOODED...

TWEEP!

OH MY GOSH!
OHMNs!

UH? WHA?

WHAT IS IT MAY? IT'S STILL DARK OUT.

OHMNs!

O, CAIN... I'M COMING.
LET'S TAKE A PEEK OUTSIDE AND SEE WHAT'S HAPPENING...

WHAT THE... P!!!
Max, I think we better turn on the TV...

Nothing but snow. Let's try the radio...

Stay in your homes. Do not go outside. If you or your family begin showing symptoms such as slowed movement, slurred speech, or violent behavior, isolate them to a secure area of the home. Stay tuned for more information on where to go... Stay in your...

Uhm... Todd... What's going on now?

To be continued...
WE'RE ALMOST OUT OF FOOD. IT'S BEEN ALMOST A WEEK, TODD, AND WE HAVEN'T LEFT THE HOUSE!

SOMETHING'S ON THE RADIO...

...CONTINUES TO SPREAD. CDC IS URGENCY EVERYONE TO PRACTICE ISOLATION. STAY IN YOUR HOMES. IF YOU MUST LEAVE, GO DIRECT TO DESIGNATED SAFE ZONE.

VACCINES WILL BE SHIPPED TO THE SAFE ZONES AS SOON AS THEY ARE READY. STAY TUNED FOR A LIST OF SAFE ZONES IN YOUR AREA.

DO YOU THINK THEY HAVE FOOD AT ONE OF THESE SAFE ZONES?

WE NEED TO GET SOME FOOD!

THEM MUST. WHY ELSE WOULD THEY TELL PEOPLE TO GO THERE?

THAT'S US! LEE ELEMENTARY... AND YOU CAN COME TOO, MAX!

RARF!

ALRIGHT... BUT HOW ARE WE GOING TO GET OUT OF HERE?
Alright, let's pack.
A couple bags and get moving!
It's going to be dark soon and I don't want to be stuck outside with those things!

We're gonna have to make a run for it. They seem to be slower in the daytime.

...And the car's not too far away.

I've got water, the last of the food, a blanket, flashlight and the radio.

The coast is almost clear. There's one zombie just passing the driveway.

Let me get Max's leash on and I think we're ready.

Okay, as soon as this guy gets out of the way, I'll tell you when to go.

AND YOU GOTTA RUN!
GO! GO! GO!

OKAY, MAX IS IN THE BACK. HURRY, TODD!

OH MAN, SOME OF THEM ARE HEADED THIS WAY!

OH TODD... THEY'RE EVERYWHERE! I THINK THEY'VE SEEN US!

COME ON, GIRL... WE'RE COUNTING ON YOU!

EEEE!!! TODD! GOOOOOOO!!!

PAT! PAT! PAT!

THUMP!

BE SURE YOUR DOOR'S LOCKED!

argar!
WUMP!

SCREEEEEEE!

Uh oh... the fuel light just came on! How far away is that school?

Well... we better drive fast and take chances!

What? You're out of gas? We've got 10 miles to go and it's starting to get dark!

Do me a favor and try not to hit any the...?
JULIE, TODD AND MAX RACE THROUGH TOWN TO REACH THE SAFE ZONE...

THE STREETS ARE EMPTY!

I GUESS MOST OF THEM GO INTO HIDING DURING DAYLIGHT.

YOU FOLKS MADE IT JUST IN TIME. WE LOCK UP AT DUSK AND DON'T RE-OPEN UNTIL THE MORNING.

GO ON INSIDE. GET SCREENED, SHARED IN AND THEY'LL GIVE YOU SOME FOOD AND A PLACE TO SLEEP.

WE MADE IT! LEE ELEMENTARY SCHOOL... WHAT A SIGHT FOR SORE EYES!

KPUTT!

PUTT!

PUTT!

AND JUST IN TIME... THE CAR'S SPUTTERING OUT.

NOTICE

BY ORDER OF THE WAYNE COUNTY HEALTH DEPARTMENT: ALL PERSONS WISHING TO ENTER THE SAFE ZONE, MUST BE SCREENED PRIOR TO ENTRY.
I'm Nurse Evans. Just follow me. So we can get you both screened with a simple blood test.

Later, having been screened for the virus, Julie and Todd are cleared and allowed to enter the gymnasium which has been converted into a shelter...
Okay, Max, let's see what's happening outside.

...CDC shipped out its first supply of vaccines against this novel virus that has been ravaging the nation. The first round should reach safe zones as early as this evening...

What?!

We're saved?! I can't believe it!

Vaccines?!

While the shelter erupts in cheers, hugs, and tears of relief... outside the school's protective fence, shadowy figures are closing in...

Hey folks, the vaccines are on their way!

Yay!!
AROUND SUNSET, THE FIRST TRUCK ARRIVES AT THE GATE OF THE SCHOOL...

HEY EVERYBODY... IT'S HERE! IT'S HERE!

BUT WITH THE SETTING SUN, THE ZOMBIES BECOME MORE ACTIVE AND THEY BEGIN CLOSING IN ON THE SCHOOL...

THE ZOMBIE Hordes SURROUND AND OVERPOWERS THE GUARDS THEN BEGINS TO BREAK INTO THE SCHOOL, SMASHING WINDOWS AND DOORS...

...HEADING FOR THE CROWDED SHELTER IN THE GYMNASIUM!

QUICK! GET THE TRUCK INSIDE THE GATE. HERE THEY COME!

SMASH!

SARGE, WE'RE GONNA GET OVER-RUN!

GAARRRR!!

WE CAN'T JUST SHOOT THEM. THESE ARE OUR FELLOW CITIZENS!

OH MY GOSH! HERE THEY COME!!! RUN!

ARRRGGH!
BACK IN THE SYM, PEOPLE ARE CHATTERING HAPPILY WITH THEIR FAMILIES WHEN THEY HEAR GLASS BREAKING.

ALL OF A SUDDEN, ZOMBIES BREAK THROUGH THE WINDOWS AND DOORS AND BEGIN STREAMING IN.

MASS PANIC EnsUES AS EVERYONE REALIZES THERE'S NOWHERE TO RUN!!

TOOO, WHAT DO WE DO?

RUN TO THE LAB AREA, MAYBE THERE'S A WAY OUT?

TOOO, LOOK OUT!!!
WHOA!

ROWW! ROWW!

MAX... ?

WHERE... ?

WOW... IT WAS ALL JUST A DREAM... ?

WHAT IN THE WORLD IS GOING ON DOWN THERE?

THUNDERSTORM'S COMING...

HUM? OH... UH... I WAS JUST HAVING A BAD DREAM. I DREAMED THE COUNTRY HAD BEEN TAKEN OVER BY ZOMBIES... AND THEY ALMOST GOT US!

UHH! YOU AND YOUR SCARY MOVIES, SEE... THIS IS WHAT HAPPENS WHEN ALL YOU WATCH IS HORROR FILMS!

WHAT'S THAT ON THE TV?

COME ON, I THINK WE BETTER GET TO THE BASEMENT. THIS LOOKS LIKE A BAD STORM.
TURNING OFF THE TV, TODD AND JULIE HEAD DOWN INTO THE BASEMENT...

WHAT ARE YOU LOOKING FOR??

I'VE BEEN THINKING... WE SHOULD REALLY MAKE AN EMERGENCY KIT IN CASE SOMETHING HAPPENED.

WHAT IF WE WERE STUCK IN THE HOUSE OR HAD TO EVACUATE?

WE NEED TO HAVE A PLAN!

SOMETHING THAT COULD COME IN REAL HANDY...

WOW... THAT OLD THING STILL WORKS!

...SEVERE THUNDERSTORM WARNING IN EFFECT FOR THE FOLLOWING COUNTIES: PRINCE GEORGE'S, BARTOW, WAYNE...

WAYNE? HEY, THAT'S US... TURN IT UP!

IT USED TO BE MY DAD'S.

OK, BUT I'M SERIOUS... I THINK WE NEED TO MAKE AN EMERGENCY KIT.

I HEAR YA!!
AS SOON AS THIS STORM PASSES, WE CAN MAKE ALL THE KITS AND PLANS YOU WANT.

BUT NEXT TIME, I'M PICKING THE MOVIE.

MEOW!

THE END?
APPENDIX D: TEXT-ONLY STIMULUS

Preparedness 101: Zombie Apocalypse

Page 2

It's a darkly lit night in the small town of Raleigh, North Carolina. The row houses on Maple Lane softly glow onto the dimly lit street.

A man's voice from inside one of the houses says, "I get to pick the next movie! That one's going to give me nightmares." A woman's voice responds, "Oh you're such a baby, it wasn't that scary. You know that kind of stuff would never really happen."

Page 3

As we move into the home, we see the man, Todd, and his girlfriend, Julie, sitting on a couch watching TV with their dog, Max. Julie looks over at Todd, "Well I'm going to try and get some sleep, don't stay up too late."

"Alright, Max and I will be on the lookout for the boogeyman, ha ha," says Todd.

"Very funny," says Julie, as she walks to the bedroom.

As the movie rolls to the last of the credits, Todd reaches for the remote control to change the TV to the evening news. "Stay tuned for Channel 3 nightly news," says the announcer.

Page 4

"In other news," says the male news anchor, "several people have been hospitalized after a strange virus began spreading rapidly through the southeast." Todd sits up on the couch, "Huh?!"

The news anchor continues, "Scientists haven't identified the virus yet, but symptoms include slow movement, slurred speech, and violent tendencies."

The television screen changes to a graphic with CDC logo and a website address. "The Centers for Disease Control and Prevention is recommending that people distance themselves from anyone displaying these symptoms. They are also recommending that families gather emergency supplies and start making plans in case they are asked to evacuate. You can get more information at emergency.cdc.gov," finishes the news anchor.
Todd looks to Max, who is lying on the floor, "Emergency supplies, evacuation, what's going on Max?"

-----

Page 5

Todd gets up from the couch and walks over to his computer in the next room. Max follows along behind him. "Let's check the internet," says Todd.

Todd sits at his computer desk and looks at up the news on a search engine. Several news stories come up about a zombie outbreak Raleigh. "A zombie virus?," says Todd, who rubs his chin with a worried look on his face, "This does not look good, Max."

Todd continues to type on his keyboard. "Let's check the CDC website," he says. Todd types in the website address for the CDC and he sees a page that displays the steps for making an emergency kit. Todd sees a "print" button. He clicks it with the mouse, "An emergency preparedness kit, eh? I better print this out." Todd pulls out the list from his printer, and looks at the piece of paper, "OK Max, let's see what we can gather up."

Todd and Max walk to the kitchen. Todd starts pulling canned food and bottled water out of the cupboards. As Todd pulls out each item, he checks the list that he printed out.

-----

Page 6

Todd picks up the box of supplies and heads toward the basement door. Todd and Max walk down the stairs and to a set of shelves along the wall. Todd discovers an old battery-operated radio at the back of one of the shelves. "Man, I forgot I had this. It used to be my dad's. He was always listening to the weather report when storms came through. Guess we'll add it to the supplies!"

Todd and Max emerge from basement, Todd carrying a cardboard box with added supplies from the basement and Max holding a duffle bag in mouth. "Well it looks like we've got almost everything, Max," says Todd, "...water, food, radio, flashlight..." Max looks anxiously at his bag of dog food and barks, "URRRUFFF!"

"Oh yeah buddy, I guess I need to add some of your stuff in, too," says Todd, as he adds Max's favorite teddy bear into the supply box.

-----

Page 7

Todd's emergency box of supplies is nearly full, including a flashlight, bottled water, potato chips, cans of soup, a first aid kit, battery-operated radio, toilet paper, Max's ball and teddy bear, a map of Raleigh, and personal papers. "Well that should do it...," he says.
Todd sits back down on the couch with Max, "Let's see if there have been any new developments." Todd changes the channel until he finds a news update. On the TV, he sees a live report showing zombies swarming the city streets. "Wow, Max," Todd says,"...looks like they're everywhere!"

Suddenly, Todd and Max hear a THUMP at the front door. Todd and Max look worried. "Huh?!," says Todd, looking confused, "Maybe we should take a break from the horror movies Max, I'm acting like Julie, jumping at every little noise."

Todd and Max then hear a screeching "MEEEEOOOOWWWRR!" Todd exclaims, "What in the...??" Max's teeth glint in the light as he growls in the direction of the strange noise.

-----

Page 8

Todd reaches for the doorknob. "Let's see what all the racket is about." Just as Todd opens the door, a gray cat bolts inside of the house, "MEOOOWWWRR!!!" Todd immediately recognized the terrified cat, "Snowball, what are you doing?"

Snowball hides behind a chair leg, looking crazed. Max growls at Snowball while Snowball hisses back. "Max, leave Snowball alone!," Todd scolds. He looks back to Snowball, "Did Mrs. Clements let you out again? You know you're not supposed to run off like that." Max bears his teeth at the cat, "RRRR."

Just then, Todd hears the dull sound of shuffling and moaning outside the front door. "Now what?" he says. He hears another sound from outside the house, "UUURRRRR!"

Todd opens the door, "Hello?" A lumbering figure emerges from the shadows. "Uh…Mrs. Clements?" says Todd.

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Page 9

The figure comes closer. Her skin is pale and grey, her eyes and glazed over and she doesn't seem to be able to speak beyond grunts and groans. "Uh, Mrs. Clements," says Todd, "You don't look so good. Maybe you should go lie down and I'll bring Snowball back for you."

Mrs. Clements grabs for Todd. "Mrs. Clements!!" he says and Mrs. Clements groans at him, "It's me, Todd, your neighbor!! You really don't look well!! Why don't you go back home and I'll bring Snowball by in the morning."

Mrs. Clements groans as she lumbers through the front door. Todd backs away from her, "Okay, maybe not!" Snowball runs out the front door, "RROWR!"
Just then, Mrs. Clements grabs Todd's shirt collar. "AHH," he yelps. Max growls at Mrs. Clements.

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Todd pulls Mrs. Clements' hand off shirt, "Let GO!" Mrs. Clements grunts back, "GARR." Todd pushes Mrs. Clements out the front door and down the steps, "Later, Mrs. Clements!" Todd slams the front door and slumps to the floor with his back against the door. He still hears Mrs. Clements outside the house, "Urrrm! Grrr…glurp!"

Todd hears Julie's sleepy voice from upstairs, "What in the world is going ON down there?" Todd looks up and sees Julie standing at the top of the stairs. "Something weird is happening," he says, "I'm pretty sure Mrs. Clements was trying to attack her own cat, and she nearly got me!" "What on earth are you talking about?" says Julie, "Mrs. Clements is a sweet old lady. She wouldn't hurt a fly. I think you got a little TOO into the movie." "No, I'm serious," says Todd, "There's a weird virus going around. Look at the news…"

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Todd and Julie watch the news on the television. A news reporter is speaking in front of a scene with a police car and some people and zombies in the background. "Quarantine efforts here in Raleigh haven't done much to contain the spread of the virus," says the reporter, "Over half the city is now infected and new cases are showing up throughout the southeast. Back to you in the studio, Samantha."

The television screen changes to show a female reporter at a studio news desk. "This is a very grave and dangerous situation," she says, "The governor has declared a state of emergency and has activated the National Guard. The governor is urging everyone who is not showing symptoms to stay in their homes and keep their doors locked."

Todd peeks out the window shade into the dark outdoors. He can still hear the television in the background. "The CDC is working with local health departments on a vaccine," says the female reporter, "Until then…bunker down and don't go outside unless you have to!"

"What?!," Julie exclaims, "I thought you said stuff like this only happened in the MOVIES! What is going ON, Todd?" "I don't know," Todd responds, "But it sounds like we better sit tight. Max and I got some supplies earlier."

Todd turns the television off, "Maybe we should just sleep down here tonight."
Minutes later, Todd and Julie have set up sleeping bags and turned on the radio, "...warnings have been issued for dozens of counties about staying inside, and area hospitals are being overrun." Julie gasps, "Oh my gosh!"

As Todd and Julie fall asleep, outside the house all that is seen in the light of the street lamps are zombies and their long shadows.

Several hours pass and suddenly Max nudges sleeping Todd on the floor, "Whine!" "What IS it, Max?" Todd says groggily, "It's still dark out." Julie mumbles, "Uh? What?"

Todd gets up and follows Max to the window. "Okay, okay...", he says, "I'm coming. Let's take a peek outside and see what's happening..." Todd peaks out the window behind the curtains, "What the...?!!"

Outside, many zombies are seen roaming the streets and some are very close.

Todd looks to Max, "Max, I think we better turn on the TV..." Todd turns on the television, but there is no picture. "Nothing but snow on the TV," says Todd, "Let's try the radio..."

Todd goes back to Julie, who is looking worried, and turns on the radio sitting next to her. "Stay in your homes. Do not go outside," says the voice on the radio, "If you or your family begin showing symptoms such as slowed movement, slurred speech, or violent behaviors, quarantine them to a secure area of the house. Stay tuned for more information on where to go...Stay in your..."

Todd and Julie stare at each other with shocked expressions.

To be continued...

A week later...

Todd is looking out the window of the kitchen as Julie rummages through the back of the cupboards. "We're almost out of food," says Julie, "It's been a week, Todd, and we haven't left the house. We need to get some food!"

Todd walks over to the radio and adjusts the dial. "Something's on the radio," he says. "...continues to spread," says the voice over the radio, "CDC is urging everyone to
practice isolation. Stay in your homes. If you must leave, go directly to a designated safe zone. Vaccinations will be shipping to the safe zones as soon as they are ready. Stay tuned for a list of safe zones in your area."

Todd and Julie look at each other with tired expressions. "Do you think they have food at one of these safe zones?," asks Julie. "They must," responds Todd, "Why else would they tell people to go there?"

The voice on the radio continues in the background, "...Spaulding Elementary, MLK Community Center, and Jefferson High School. Pets are welcome at Lee Elementary in Wayne County." "That's us! Lee Elementary," Todd exclaims. He pats Max on the head, "And you can come too, Max." "Alright," says Julie, "But how are we going to get out of here?"

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Todd looks outside the window again. Shadowy figures of zombies are walking in the street nearby. "We're going to have to make a run for it," Todd says, "They seem to be slower in the daytime and the car's not too far away."

Julie looks out the window at the zombies, "Alright, let's pack a couple bags and get moving! It's going to be dark soon and I don't want to be stuck outside at those things!"

Todd puts a leash on Max, "Let me get Max's leash on and I think we're ready." "I've got water, the last of the food, a blanket, flashlight and the radio...," Julie says as she fills up a backpack.

Todd takes one more look out the window while Julie and Max wait by the door. "The coast is almost clear," he says, "There's one zombie just passing the driveway. Okay, as soon as this guy gets out of the ways, I'll tell you when to go and you gotta RUN!" Max fells then tension in Todd's voice and lets out a growl, "RRRRRRRR!"

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Todd, Julie and Max run outside and down the front steps. "Go, Go, Go!," yells Todd. Julie yells back, "Oh Todd...They're everywhere! I think they've seen us!"

The three make it to the car. Julie opens the passenger door. Max jumps in the back while Julie gets in, "Okay, Max is in the back. Hurry, Todd!" Todd throws open the driver's door and gets in the car, "Oh man, some are headed this way!"

Todd tries to turn the car on. "Come on girl, we're counting on you!," he says while giving encouraging pats to the dashboard. "Be sure your door's locked!," he says to Julie.
Just then, a zombie presses the window next to Julie, "Garr!" "Eeee!," screeches Julie, "Todd! Gooooo!"

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The car speeds away with smoke coming from the tires as zombies chase after it. The car speeds through the neighborhood streets. Todd and Julie see zombies crawling around and stumbling behind the car.

Todd looks down at the car's fuel gauge, which shows empty, "Uh oh, the fuel light just came on!" "What?," exclaims Julie, "You're out of gas? We've got 10 miles to go and it's starting to get dark!" Todd swerves the car around zombies and buildings, "Well…we better drive fast and take chances!"

Julie watches the zombies as the car flies past, "Do me a favor and try not to hit any of them?"

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Julie, Todd, and Max race through town to reach the safe zone. The car leaves a cloud of dust as it drives through the city. "The streets are empty!," says Julie. "I guess most of them go into hiding during daylight," Todd responds.

The car pulls into a parking space at the school in a cloud of smoke. "We made it!," says Julie, "Lee Elementary School, what a sight for sore eyes!" The car starts to gurgle as it idles in the parking space. "And just in time," says Todd, "The car's sputtering out."

Todd, Julie and Max run toward the elementary school. Two men in camouflage are guarding the entrance. "You folks made it just in time," says one of the guards, "We lock up at dusk and don't re-open until the morning."

"Go on inside, get screened, signed in…," says the guard, "And they'll give you some food and a place to sleep."

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A nurse leads Todd, Julie and Max down a hallway in the school to a door with the word "LAB" printed above. "I'm Nurse Evans," the woman says, "Just follow me so we can get you both screened with a simple blood test." They follow Nurse Evans into the make-shift lab where people are standing around several tables with microscopes and medical supplies.

Later, having been screened for the virus, Julie and Todd are cleared and allowed to enter the gymnasium, which has been converted to a shelter.
Todd sits on a cot and Max sits on the ground in front of him. Todd pulls out the radio from the backpack. "Okay, Max," he says, "Let's see what's happening outside." "...CDC shipped out its first supply of vaccines against the novel virus that has been ravaging the nation," says the voice on the radio, "The first round should reach safe zones early as this evening."

People near Todd and Julie's cots hear the radio. "What?!" "Vaccines?!" "Hey folks, the vaccines are on their way!" "Yay!" Todd and Julie hug each other. "We're saved?!," says Julie, "I can't believe it!"

While the shelter erupts in cheers, hugs, and tears of relief, outside the school's protective fence, shadowy figures of zombies are closing in.

Around sunset, the first truck arrives at the gate of the school. "Hey everybody, it's here!," says a man at the doorway, "It's HERE!" But with the setting sun, the zombies become more active and begin closing in on the school. "Quick!," says a guard at the gate, "Get the truck inside the gate, here they come!"

Two guards try to fight off the zombies, which are trying to enter the compound. "Sarge," yells the first guard, "We're gonna get overrun!" A zombie groans as it grabs for the second guard. "We can't just shoot them," says the second guard, "These are our fellow citizens!"

The zombie horde surrounds and overpowers the guards, then shuffle through the gates. They begin to break into the school, smashing windows and doors, and head for the crowded shelter in the gymnasium. "Oh my gosh!," a voice cries out, "Here they come! Run!"

Back in the gym, people are chattering happily with their families when they hear glass breaking. All of the sudden, zombies break through the windows and doors of the gymnasium and begin streaming in. Mass panic ensues as everyone realizes there's nowhere to run.

Todd and Julie cling to each other. "Todd, what do we do?," cries Julie. Todd pushes Julie, "Run to the lab area," he yells at her, "Maybe there's a way out!"

Julie sees something coming towards Todd. "Todd, look out!!!," she screams. Todd tries to get away from a zombie who has latched onto his shirt. "Nooooo!!!," he yells as he tries to pull away.
Todd gives another hard pull and the zombie lets go, but he loses his balances and falls backwards to the floor, "Whoa!"

Todd opens his eyes and sees Max looking down at him, "Rowf! Rowf!" "Max?," says Todd. He notices that the light has changed. "Max? Where...?" Max answers back, "Rowf! Rowf!" Todd sits up and leans back against his couch. "Wow...," he wonders aloud, "It was all just a dream?"

Julie walks into the living room with a sleepy look. "Todd," she says, "What on earth is going on down here?"

Outside, lightning cuts through the night sky against the silhouette of trees. Todd peers out of the window, pulling the curtains aside. "Thunderstorm's coming," he says distractedly, "Huh? Oh...Uhh, I was just having a bad dream. I dreamt the country had been taken over by zombies and they almost got us!" "Ugh! You and your scary movies," Julie groans, "See, this is what happens when all you watch is horror films!"

Julie looks over at the television and sees a satellite picture of a storm. "What's that on the TV," she asks. "Come on, I think we better get to the basement," Todd responds, "This looks like a bad storm."

Turning off the TV, Todd and Julie head down to the basement. Julie sees Todd rummaging through the shelves. "What are you looking for?," she asks. "Something that could come in real handy..." he responds without looking up. Todd pulls a radio out from a pile of stuff. "This!," he exclaims, "I forgot we had it. It used to be my dad's."

Todd scratches his chin. "I've been thinking...," he says to Julie, "We should really make an emergency kit in case something happened. What if we were stuck in the house or had to evacuate? We need to have a plan!"

Julie looks at the radio. "Wow...," she says, "That old thing still works!" "...severe thunderstorm warnings in effect for the following counties...," says the voice from the radio, "Prince Georges, Bartow, Wayne..." "Wayne?," Julie jumps in, "That's us...turn it up!" Todd turns up the radio. "Okay," he says to Julie, "But I'm serious...I think we need to make an emergency kit." "I hear ya!," she says.
Outside, a streak of lightening flashes across the sky. "As soon as this storm passes, we can make all the kits and plans you want," says Julie, "But next time, I'm picking the movie."

The End?