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Using Spoken Narratives to Measure Listening Engagement in Children

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A thesis submitted in partial fulfillment of the requirements for the Master of Science degree in Neuroscience

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Abstract

Despite the rising popularity of audiobooks and podcasts, research on children listening to spoken stories remains in its infancy. In addition, the use of spoken stories could significantly improve studies of listening engagement in children. Thus, the present study sought to 1) explore how children aged 8-13 years engage with these novel media and 2) determine which stories might be most engaging to children in this age group. Fifty-two parents of children aged 8-13 years completed an online survey which asked about their children's listening habits. Results of the survey then informed the development of four engaging stories (and two boring stories) which were heard by 26 children aged 9-12; children provided subjective ratings concerning their levels of engagement. Survey results showed that 74% of children listen to spoken stories, with the vast majority (92.5%) listening at least 1-2 times a week. Across platforms, the genre most frequently listened to was fantasy stories (84.9%; more detailed descriptions of popular themes and sub-themes are described). The listening engagement pilot study indicated no effect of story on engagement ratings. The data described here provide a basis for informed studies of listening engagement in children.

Keywords

Narrative Listening, Children, Podcasts, Audiobooks, Stories

Summary for Lay Audience

Even though audiobooks and podcasts for children are becoming increasingly popular, there is a lack of research on this subject. Because of this, there is much we still don't understand about the types of stories to which children like to listen. Improving our knowledge of this area could also help us improve other areas of hearing-related research because using engaging stories in the lab would more closely resemble how we listen to speech in the real world. Therefore, this study aimed to explore how children aged 8-13 years engaged with spoken stories and then test which stories children aged 9-12 rated as most engaging. First, we conducted an online survey of fifty-two parents of children aged 8-13 years. Parents reported on their children's listening habits; these results were then used to inform the development of four engaging stories (and two boring stories) which were heard by 26 children aged 9-12. The children listened to the stories and then answered questions concerning how engaging they found each story. Overall, a majority of children listen to spoken stories at least 1-2 times a week, and the most popular genre was fantasy. When children listened to the stories we developed, they reported that the boring stories were no less engaging than the engaging stories; potential explanations for this finding are discussed. These results are an important step in progressing research on how children engage in spoken stories.

Co-Authorship Statement

Data arising from the listening survey described in this thesis have been previously published. I designed the survey and collected and analyzed the resulting data. I wrote the manuscript with comments from Bjorn Herrmann and Blake Butler. The citation is:

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Chapter 1

1 Introduction

The ability to immerse oneself into the world of a story provides an enriching experience that is valued by adults and children alike. In addition to its role as an enjoyable pastime, leisure reading in children has been linked to improved academic performance, reading and spelling ability (Cunningham et al., 2001; Martin-Chang & Gould, 2008), reading speed (Martin-Chang et al., 2020), and math skills, even after controlling for variables related to socioeconomic status (Sullivan & Brown, 2015; for a review of leisure reading and its benefits, see Clark & Rumbold, 2006). However, recent survey data suggest that reading rates among school aged children are in steady decline, with the number of children described as frequent readers (those who read for fun 5+ days/week) falling by ~1% per year (Scholastic, 2018). This may, in part, reflect that children's media – like all other media – have changed significantly with the expansion of the internet and the rise of personal devices. The versatility of digital entertainment has enabled the development of platforms that deliver narrated auditory content directed at children, and which may supplement or replace more traditional media (Ipsos, 2020). For example, story-based podcasts and audiobooks developed specifically for children are abundant (Kids Listen, 2021) and in many cases, more accessible than conventional children's media (i.e., print books). However, research about child-directed, spoken narratives is lagging, and the current understanding of how and why children might engage with these narratives remains to be explored. Developing an understanding of the preferred genres, formats, and listening durations in this age group provide an understanding of how children engage with spoken stories as new listening formats emerge. Moreover, it will enable the design of naturalistic research materials that align with children's preferences, and allow listening behaviors to be studied in the lab using ecologically-valid listening materials.

1.1 Adults' Engagement with Spoken Stories

Although podcast use has increased significantly in recent years (Edison, 2021), few systematic studies of how and why adult listeners engage with podcasts have been undertaken (Markman, 2015). In their analysis, Perks and Turner (2019) noted that

podcasts, compared to their radio program predecessors, enable greater control over both the content to which one chooses to listen (e.g., which podcast, which episode, for how long) and what else one might choose to do while listening (e.g., commuting, doing chores, relaxing). In addition to this flexibility, a recent survey of college students highlighted three distinct motives for listening to podcasts: entertainment – a desire to enjoy oneself while listening; escapism – a desire to become absorbed in something other than one’s own life; and education – a desire to learn new information (Craig et al., 2021). Accordingly, several popular podcasts enjoy large and highly engaged subscriber bases (e.g., *Pod Save America*), and there are several recent examples of podcasts that have joined “must-see TV” as topics of watercooler conversation (e.g., *Serial*). As a result, young adults also report social interaction with friends/family and companionship as a significant motive for podcast listening (Chung & Kim, 2015).

Audiobooks, which pre-date podcasts, have been the subject of a broader body of research. According to the most recent Infinite Dial survey, 46% of the U.S. population over 12 years old reported listening to an audiobook at least once in their lifetime (Edison, 2021), while a 2019 poll suggested that 20% of adults had listened to an audiobook in the previous year (Pew, 2019). Like podcasts, audiobooks allow for multitasking, such that individuals are free to spend more time engaging with written materials (Tattersall-Wallin & Nolin, 2020). For example, many adults listen to audiobooks during commutes, enabling them to engage with stories at a time when print reading may not be possible (Have & Pederson, 2015). Interestingly, while teenaged boys tend to read less than young women (Brozo et al., 2014), they listen to audiobooks slightly more often than young women, suggesting a smaller gender gap in reading than previously reported, if audiobooks are considered (Tattersall-Wallin & Nolin, 2020). Thus, across narrative media, listening habits and motivations may differ significantly from the habits and motivations surrounding traditional reading. These differences may also exist in children younger than 15 (the youngest age considered by Brozo and colleagues [2014]), though to the best of our knowledge this has not yet been investigated.

1.2 Children's Engagement with Spoken Stories

While podcasts and audiobooks are relatively recent inventions, oral storytelling – particularly telling stories to children – predates the creation of printed books. In the modern context, family members or teachers often read aloud to children, sometimes while the child follows along with the printed text (so-called ‘read-along’ stories; Cooper, 1993). Interviews with children who ranged from avid to reluctant readers and their parents suggest that reading aloud to children is an important strategy for encouraging reading for pleasure (McKool, 1998). This finding is supported by a wealth of literature demonstrating that reading aloud to young children improves language development (Debaryshe, 1993), phonemic awareness (Byrne & Fielding-Barnsley, 2001), and storytelling ability and comprehension (NICHD Early Child Care Research Network, 2005). In addition, reading aloud to a child provides an opportunity for rich, engaging interactions (Duursma et al., 2008). This broad array of behavioral benefits is corroborated by brain imaging studies demonstrating that children whose parents regularly engaged in high-quality shared reading time show increased activation in brain regions involved in expressive and complex language, working memory, and social-emotional integration during story listening (Hutton et al., 2017).

Studies of how children engage with audiobooks have largely focussed on their use in educational settings. Audiobooks help encourage and engage reluctant readers by providing a more immersive experience and making it easier for children to engage in stories for longer periods of time without giving up due to lack of reading stamina (James, 2015). Critically, audiobooks also offer a more accessible way for individuals with visual impairments or reading/learning disabilities to engage in stories (Esteves & Whitten, 2011; Whittingham et al., 2013). Listening to audiobooks thus provides opportunities for the integration of socialization into reading, a tool which may be particularly relevant to elementary education (Whittingham et al., 2013). Listening to books read aloud can help children learn about pronunciation, fluent reading, and emotional expression (Chen, 2004). Listening to an audiobook while reading the corresponding text also engages students across multiple modalities, providing an enriched experience (Marchetti & Valente, 2018). Importantly, children listening to

audiobooks show similar levels of comprehension compared to children who read the same content, and students report enjoying the text more when listening (Maher, 2019). Audiobooks are a useful tool for encouraging comprehension and making story engagement more accessible. However, it remains unclear how frequently children choose to listen to audiobooks outside of the classroom for their own enjoyment, and what may be their motivations for doing so.

1.3 Measuring Listening Effort and Engagement

In addition to improving our understanding of the types of spoken stories children prefer, studying children's engagement with auditory narratives has important implications for other areas of research. For example, Herrmann and Johnsrude (2020a) have suggested that the use of spoken narratives is a critical step toward improving research on listening effort. Listening effort is a phenomenon sometimes experienced by individuals with hearing loss when they attend to speech, especially in the presence of background noise. Effort, in addition to other adverse listening experiences such as fatigue and stress, can cause individuals to disengage from listening, leading to gaps in information and feelings of social isolation (Pals et al., 2014).

Children with hearing loss face the challenge of listening effort every day in a typical classroom environment, where high levels of background noise make speech comprehension even more difficult (Howard et al., 2010). If children struggle to engage with speech at school, they may find it difficult to attend to lessons in class or interact socially with their peers (Bess et al., 2014). Obtaining a more objective, ecologically valid measure of listening engagement may be particularly important when dealing with a child population, as children may be less able to reflect on and report their own experiences than adults. Children may also be less able to advocate for themselves even when they do feel that they are struggling, and adults in their lives such as teachers and parents are not always able to tell if a child is experiencing listening effort or fatigue at school (Werfel & Hendricks, 2016). Using spoken stories to measure listening engagement in children could therefore provide an effective method of understanding which children may be struggling to engage with spoken language in academic or social settings.

Listening engagement – the recruitment of cognitive resources in order to meet the demands of listening in a challenging situation – is an important determinant of speech comprehension outcomes (Herrmann & Johnsrude, 2020a). If a listener is unable to engage, perhaps because the task is too cognitively demanding, they will not be able to fully comprehend the speech to which they are listening. As such, there is a growing body of research aimed at understanding why listeners engage or disengage with speech and how engagement can be supported. Motivation has been identified as playing a crucial role in listening engagement (Pichora-Fuller et al., 2016; Herrmann & Johnsrude, 2020a). For example, Lemke & Besser suggest that allocation of cognitive resources is influenced by an individual's motivation to listen to speech. If an individual's motivation to listen is high, they will be more likely to maintain engagement even when listening is effortful, be it due to adverse listening conditions or hearing loss (Herrmann & Johnsrude, 2020b).

Despite the well-established importance of motivation, current studies of listening engagement often use short, isolated words or sentences as listening materials that do not motivate listening in the same way that real-world speech does (see Gangé et al., 2017, for review). Naturalistic listening situations often present speech in the form of stories or narratives, or in the context of conversations with others (Irsik et al., 2022; Broderick et al., 2020; Jefferson, 1978). As a result, the speech content comprising real-world listening situations is typically of some interest to the listener, and therefore the listener is intrinsically motivated to engage. Therefore, studies of listening engagement that use non-engaging listening materials are unlikely to accurately capture the experience of real-world listening and may not be providing an accurate measure of listening effort's impact on speech comprehension.

Stories more closely resemble the naturalistic speech encountered in daily life and intrinsically motivate engagement in a more realistic manner. If we know that a listener is intrinsically motivated to listen, then we can minimize the effects of extraneous factors that might contribute to disengagement. Thus, stories would allow us to more accurately determine whether increased effort, and not other experiences such as boredom, is the primary cause of disengagement from listening. In addition, using continuous listening

materials rather than isolated sentences enables a continuous measurement of engagement across the time course of a narrative. Previous measures of listening effort have not examined the temporal dynamics of listening effort, and have thus been unable to determine how long it takes for the burden of effortful listening to result in disengagement. Thus, exploring the qualities of stories that children engage with most is an important area of research with significant potential for application in listening effort research.

1.4 The Present Study

The existing literature on children's use of podcasts and audiobooks focuses on their use in classroom settings, for example, to improve reading ability for students with dyslexia or to encourage reluctant readers (Whittingham et al., 2013; James, 2015). Despite growing interest among children in narrative media for use outside of the classroom, little is known about how children engage with podcasts and audiobooks for enjoyment or entertainment (Moore & Cahill, 2016). To date, there have been no published reports describing how children are using digital storytelling platforms like audiobooks and podcasts, and no previous studies have used stories to measure listening engagement in children. As such, there are no pre-existing quantitative data on how engagement during story listening in children may be impacted by qualities such as the content or complexity of a story. It is therefore important to explore how these, and other qualities, might impact listening engagement. Thus, the present study consists of two parts: 1) a survey in which parents report on the listening habits of their children; and 2) a pilot study in which children listen to stories developed based on the survey results and report their engagement in the stories. Taken together, the data presented here address the following aims: 1) determine the extent to which children aged 8-13 years engage with spoken stories, including frequency, format, and duration of listening; 2) examine the genres and qualities of spoken stories that children in this age group enjoy most; and 3) determine whether the stories developed based on parent's responses are enjoyed by children.

Chapter 2

2 Listening Survey

2.1 Methods

In order to understand the listening habits of school aged children, 52 parents/guardians of children aged 8-13 years completed an online survey containing both multiple choice and descriptive answer questions. This age range was chosen to reflect ages at which reading with a parent has typically transitioned from the sharing of picture books to reading longer works without accompanying imagery (i.e., novels; Hall & Moats, 2015). Importantly, this range also spans the age at which interest in reading books for fun appears to fall off most severely; only 35% of 9-year-olds report being frequent readers (reading for fun 5+ days/week) compared to 57% of 8-year-olds (Scholastic, 2018).

2.1.1 Participants

The survey was administered via Qualtrics (Provo, UT). Recruitment information was circulated via social media, and interested parents/guardians could access the study materials directly using a weblink or QR code. Parents/guardians with more than one child aged 8-13 years were able to provide answers to the survey questions on behalf of each of their children separately. As a result, the survey of 52 parents/guardians provided data from 76 children who were living in Canada or the United States of America. The survey took approximately 5-15 minutes to complete, depending on the level of elaboration a participant chose to provide in written responses, and the number of children for which the participant provided answers. At the end of the survey, participants had the option to provide their email to enter a draw for a chance to win a gift card. All experimental procedures were approved by the University of Western Ontario Non-Medical Research Ethics Board.

2.1.2 Survey Materials

In accordance with the goals of this study, survey questions focused on the listening behaviors observed by parents, including the frequency/format/duration of narrative

listening, and assessed the content of the stories preferred by children in their care. Given the scarcity of previous research on children's listening preferences, participants were encouraged to provide descriptive summaries of the genres, titles, and story elements their children enjoy most.

The final survey question was open-ended and asked parents to reflect on their child's listening preferences and provide a list of narrative elements that would be most appealing to their child (i.e., "If you could write a story that the child would be interested in listening to, what would you include?"). As expected, this resulted in a broad array of responses that were evaluated and categorized based on content. First, all survey responses were assessed to develop a set of broad content tags that captured the elements included. These tags comprised "comedy", "action", "suspense", "magic/sci-fi", "animals", and "real life situations". Then, one or more of these content tags were applied to each descriptive response. Finally, responses associated with each content tag were further assessed for the presence of common subthemes (e.g., many participants indicated an interest in "magic", while a subset specified "magical wizards"; Figure 7). The full survey and the data are available at <https://osf.io/hnc4f/>.

2.2 Results

The 52 parents/guardians surveyed provided data for a total of 76 children between the ages of 8 and 13 years old. No parent elected to withdraw from the survey after accessing the Letter of Information and Consent documentation. Two parents began but did not complete the survey, so the data from their 4 combined children were removed prior to analyses. Of the remaining 72 children, 53 (74%) were described as listening to auditory narratives of some type at least once every 2-3 months, with the largest proportions listening either 1-2 times per week (22/72 children [30.6%]) or daily (27/72 children [37.5%]; Figure 1). The remaining analyses focused on those 53 children who listen to narratives (age breakdown provided in Figure 2). Several of the questions posed to parents/guardians allowed for the selection of one or more responses; as a result, percentages provided may sum to more than 100%.

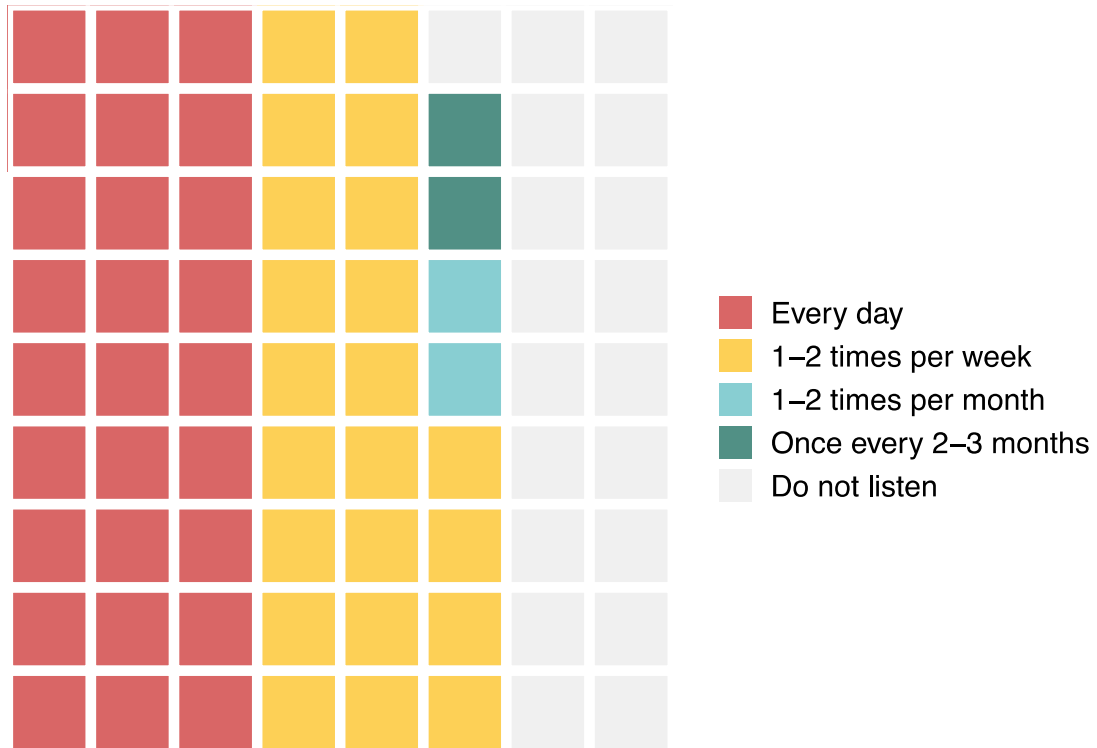


Figure 1. Listening frequency. Typical frequency of listening for all children. Parents/guardians reported that approximately one quarter of children do not listen to auditory narratives (grey). However, of those children who do listen, a majority do so daily (red).

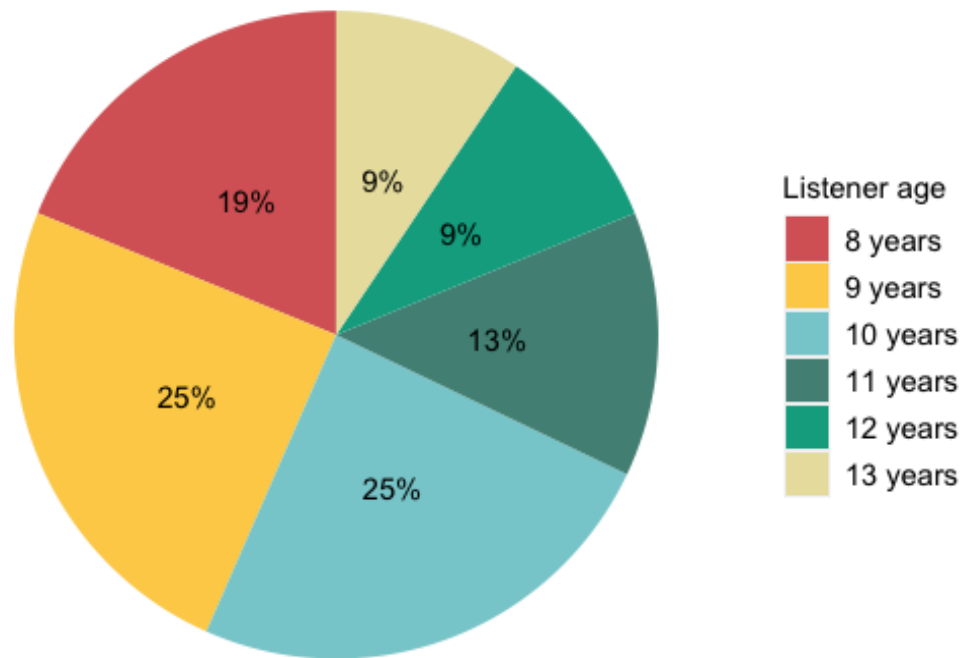


Figure 2. Age of listeners. Breakdown of listeners ($n=53$) by age.

Of the children who regularly listen to auditory narratives, 21/53 (39.6%) were described as listening for twenty or more minutes per session, while only 4/53 (7.5%) were described as listening for less than 10 minutes at a time (Figure 3). Examining how typical listening duration varies as a function of age (Figure 4), it is clear that the duration of listening increases with a listener's age. About half of children 10 years of age or younger listen to narratives for 15 minutes or less per session, whereas children 11 years of age or older tend to listen for durations in excess of 15 minutes. A Kruskal-Wallis test performed to examine this breakpoint confirmed that children with preferred listening durations of 15 minutes or less were significantly younger ($M = 9.21$ years) than those who typically listen for longer durations ($M = 10.41$ years; $H(1) = 6.39$, $p = 0.012$).

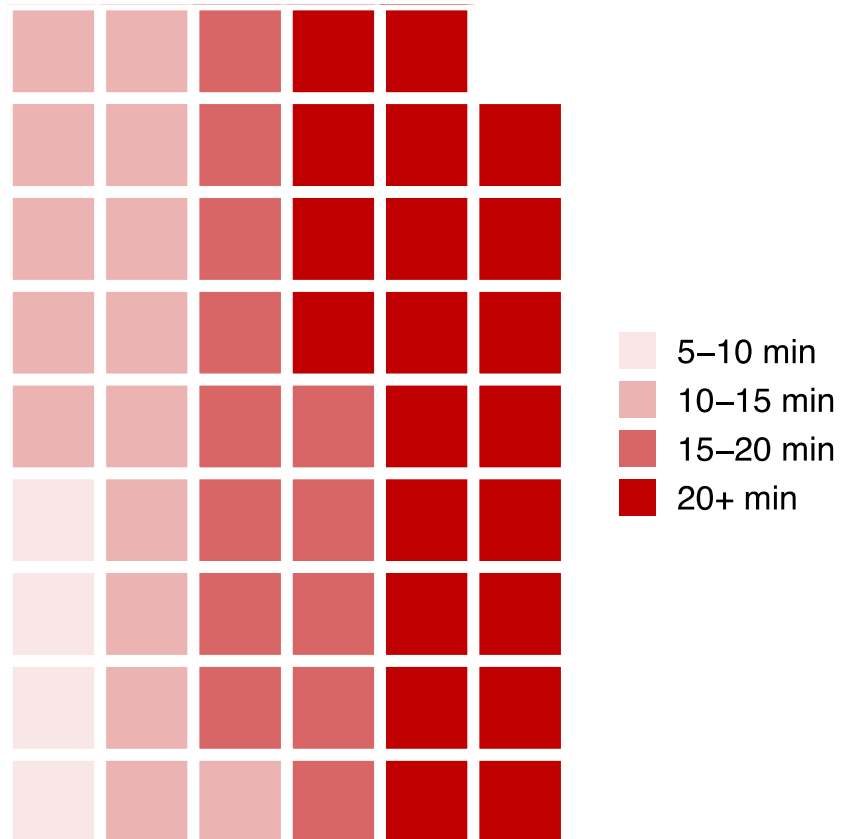


Figure 3. Listening duration. Typical duration of listening for children who do engage with auditory narratives. While some children tend to listen for only brief periods (lighter colors), a large majority of children typically listen for 15 minutes or more per session (darker colours).

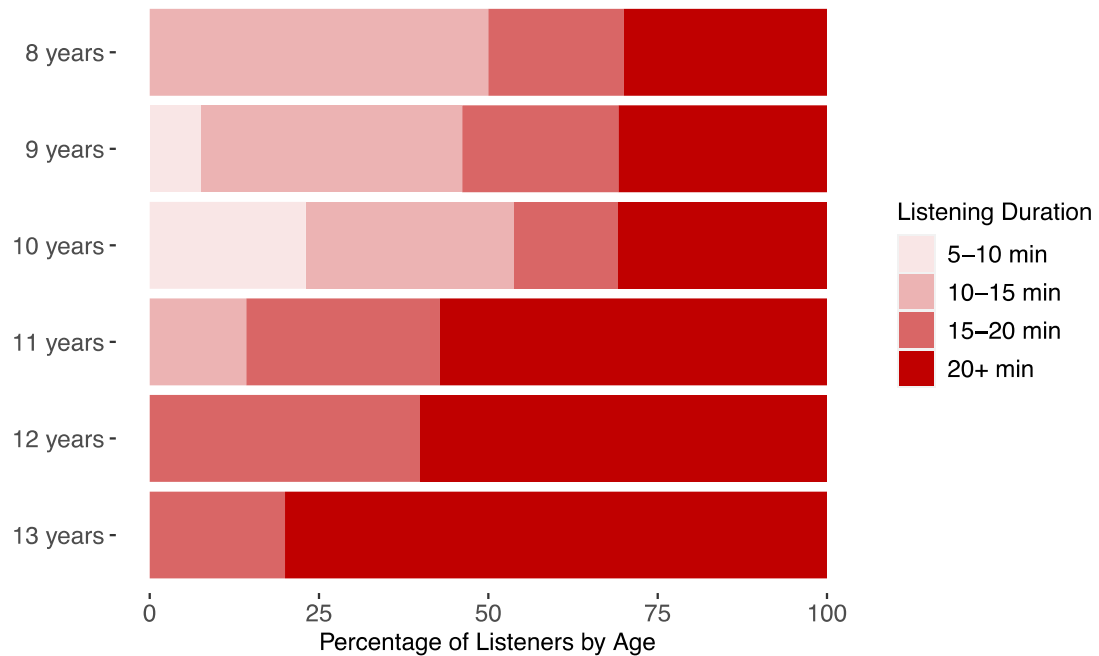


Figure 4. Typical duration of listening as a function of listener age. Note that older children show longer listening durations that younger children as noted by increasingly dark bars with increasing listener age.

When parents/guardians were asked to list all the means by which their children listen to narratives, the most frequently included response was being read to by someone else (41/53 children [77.4%]; parents were specifically instructed to consider time spent reading materials without accompanying imagery), followed by podcasts (25/53 children [47.2%]) and audiobooks (24/53 children [45.3%]). The least popular format was radio (11/53 children [20.8%]; Figure 5). Notably, for each digital media platform, parents were asked to consider only the time their child spent intentionally listening, to avoid including passive exposures to adult-directed content.

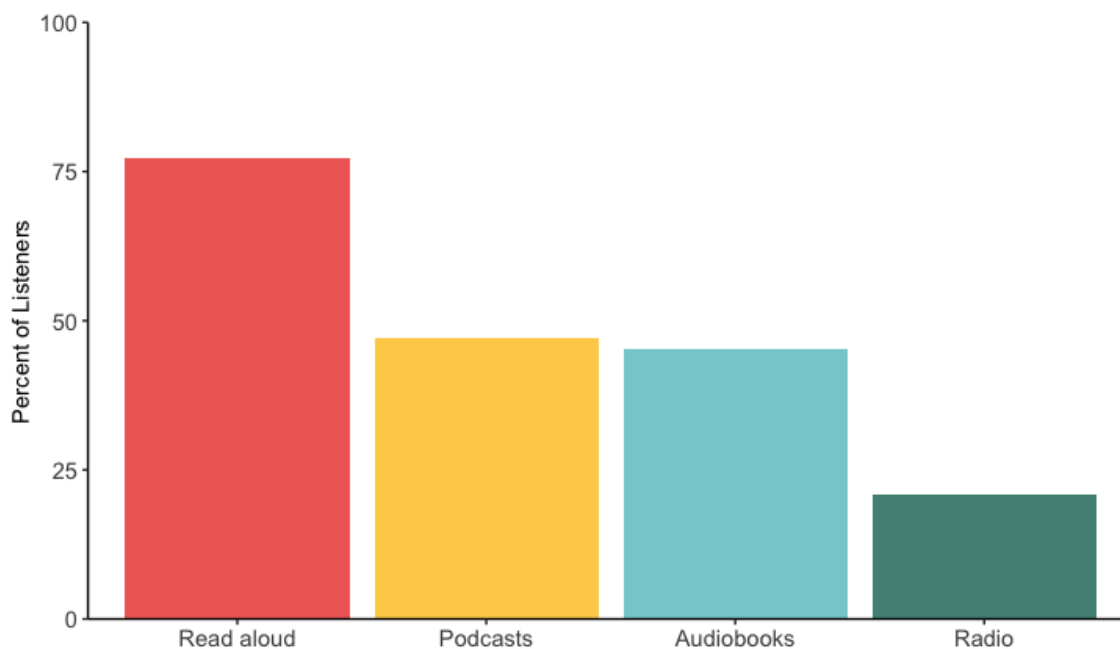


Figure 5. Preferred narrative listening formats. Here, being read aloud to refers specifically to material read without accompanying imagery (i.e., a parent reading to their child from a novel rather than a picture book). More than one-in-four children listen to podcasts and audiobooks.

Parents/guardians were also asked to select all the narrative genres to which their children listen, and to specify which genre from that selection is their child's favourite (Figure 6). Fantasy stories were most broadly listened to (45/53 children [84.9%]) and most likely to be described as a child's favourite genre (29/53 children [54.7%]). Other popular genres included science fiction (listen to: 26/53 children [49.1%]; favourite: 6/53 children [11.3%]), realistic fiction (listen to: 25/53 children [47.2%]; favourite: 10/53 children [18.9%]), and non-fiction or educational content (listen to: 20/53 children [37.7%]; favourite: 1/53 children [1.9%]). When asked to elaborate on specific titles or series to which their children most enjoy listening, the responses most often provided by parents/guardians included Harry Potter (14 mentions), Diary of a Wimpy Kid (5 mentions) and Percy Jackson (4 mentions).

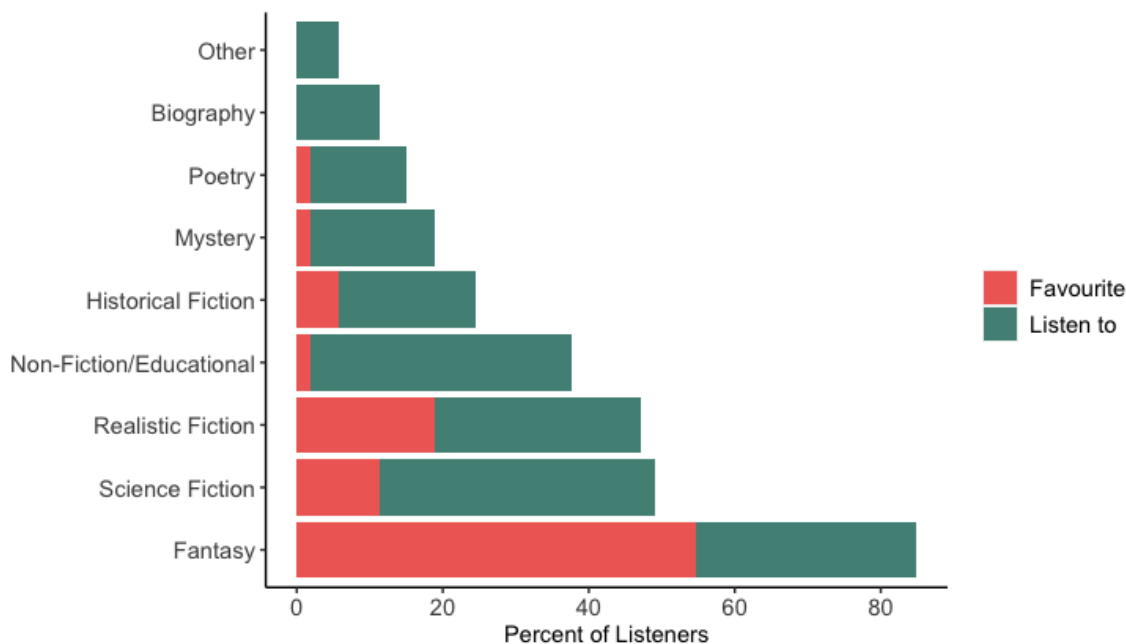


Figure 6. Genre preferences. The genres of content to which children listen (light green), and which comprise their favourite (dark green). Note that many parents/guardians reported that their children listen regularly to more than one genre (thus percentages of genres ‘listened to’ sum to more than 100%).

Finally, parents/guardians were asked to list the story elements that their children enjoy listening to most, which were aggregated into common themes and subthemes. Forty-one parents chose to complete this written response question, and many provided multiple elements per child. The most frequently included theme was comedy, with 17/41 children [41.5%] of children enjoying stories with humorous elements (Figure 7). Other prominent themes included action (13/41 children [31.7%]), suspense (11/41 children [26.8%]), magic/sci-fi (10/41 children [24.4%]), real life situations (9/41 children [22%]), and animals (8/41 children [19.5%]). The frequencies with which subthemes were reported are provided in Figure 7. Because the question was open ended, some parents commented on engaging elements of auditory narratives that extended beyond thematic content. For example, some responses noted particular sound features their children enjoyed. One parent/guardian wrote that their child “loves when books are being read with great intonation”, while another noted that their child “enjoys audiobooks with sound effects”. Vocal quality and sound effects were not probed explicitly in this study,

but narrative elements beyond the content of the story that support listening behavior of children is a topic worthy of further investigation.

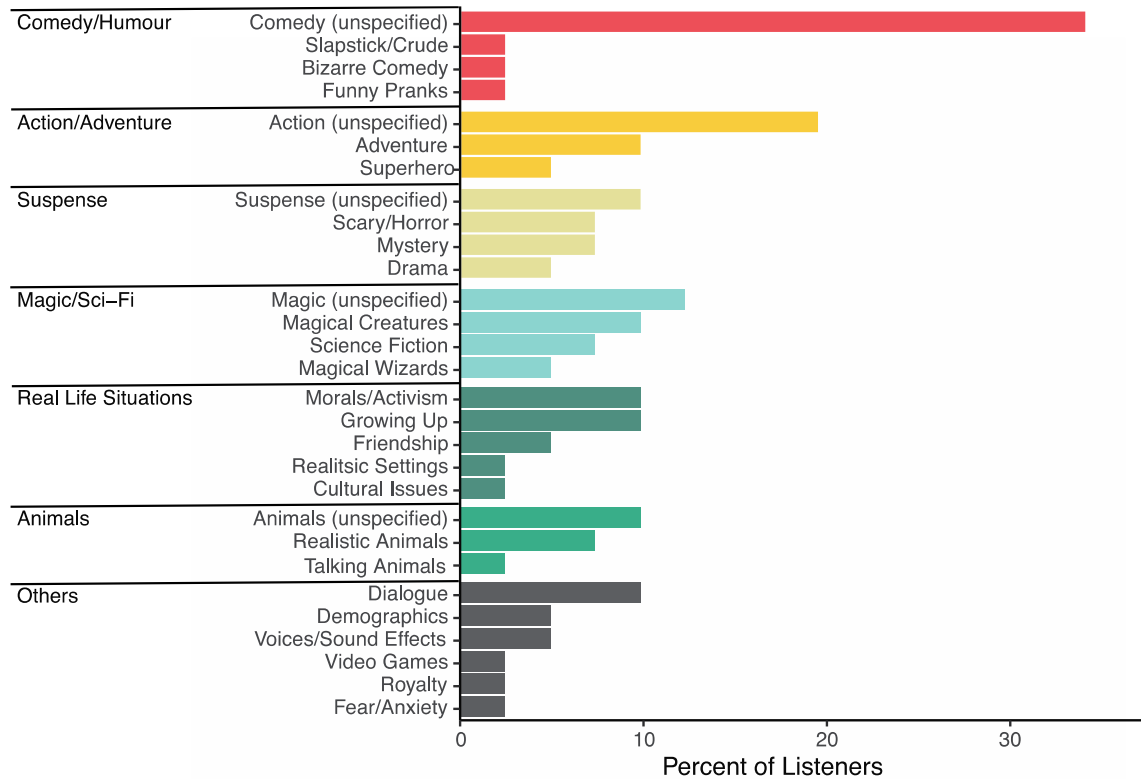


Figure 7. Story themes. The elements of auditory narratives that parents/guardians suggest most engage their children (note: parents were free to enter multiple themes; thus, totals sum to more than 100%). Broad categories and more detailed subthemes were drawn from survey responses, and the frequency of each is presented. In each case, ‘unspecified’ refers to cases in which only the broader theme was identified.

2.3 Discussion

The rise of digital media and unparalleled access to online resources has led to a dramatic increase in the use of auditory narratives, including among children (Ipsos, 2020).

Despite this, very little is known about how children are engaging with these resources.

The current thesis provides detailed information regarding the way children aged 8-13 years listen to spoken narratives.

2.3.1 Quantifying narrative listening

In our survey of listening behaviours, fifty-three of the children for whom data were provided (74%) were described as listening to spoken narratives at least occasionally (at least once every 2-3 months), while the remainder do not appear to engage with these materials. With respect to the frequency of narrative listening, a large majority of children who listen to stories do so at least once per week (49/53 children [92.5%]) while only a very small number of children are “casual” listeners (Figure 2). Being read aloud to was the most popular way in which children aged 8-13 engage with auditory narratives (41/53 children [77.4%]). These data illustrate that spoken story listening in children often occurs with another person, which may help facilitate the enriching parent-child interactions described by Duursma and colleagues (2008). These parent-child story listening experiences underscore that socializing with friends/family can be a significant motivator for spoken story listening in young adults (Chung & Kim 2015).

The current study further shows that a significant proportion of children also utilize newer media, including podcasts and/or audiobooks (25/53 children [47.2%] and 24/53 children [45.3%], respectively), to listen to auditory narratives. However, we did not capture how often children engage in podcast/audiobook listening with a parent/guardian or with other children. Regardless, it is clear from the data presented here that children are actively engaging with emerging digital story telling platforms that have been shown to provide highly individualized listening experiences over which the child may have more control when compared to traditional print media (Tattersall-Wallin & Nolin, 2020).

2.3.2 Popular and preferred narrative genres

In addition to exploring the ways children listen to spoken stories, this survey also describes the qualities of listening experiences that children enjoy the most. When comparing how many children *listen to* a genre and how often each genre was perceived to be the child's *favourite*, there is better correspondence for some genres than for others. Fantasy stories were reported as both the most listened to genre, and the genre most frequently listed as a child's favourite. Science fiction and realistic fiction were the next most frequently listened to genres and were also highly likely to be rated as a child's favourite genre, although there was a preference for realistic fiction (10/53 children [18.9%]) over science fiction (6/53 children [11.3%]; Figure 6). However, parents also reported that their children commonly listen to some genres that were very unlikely to be described as a child's favourite. Non-fiction/educational stories, for example, are listened to by 20/53 children (37.7%), but are listed as the favourite of only 1/53 children (1.9%). It is unclear from where these popularity/preference distinctions arise. In the case of educational narratives, for example, it is possible that the rate of listening may be inflated by an observation bias, wherein parents are inclined to report a genre that would be favorably evaluated by the experimenter, or that parents are using these tools to support early education despite their child's preference for other genres. It is also possible that, as the use of digital platforms like podcasting take on an increased role in formal instruction (Goldman, 2018), children's exposure to these media may include a significant portion of assigned listening. Further research should investigate potential differences in the types of stories children are engaging in across different settings (e.g., in school vs. at home) and levels of autonomy (e.g., stories listened to by choice vs. chosen by a parent or teacher).

Children's genre preferences were echoed in the specific story/podcast titles mentioned by parents. Four of the top six most frequently mentioned titles were fantasy/adventure novels, while the remaining two are humorous realistic fiction. Interestingly, while it was reported that a significant number of children in the sample listen to podcasts, only a small number of the specific titles listed by parents (~22%) were podcast titles. One likely explanation is that parents/guardians are less aware of which podcasts their

children are listening to, perhaps because children are listening to them on their own and are able to acquire them without the help of the parent (podcasts are typically free, and accessible through a variety of mobile apps). Future studies may wish to ask children directly which podcasts they listen to or ask parents to seek out this information explicitly in order to gain a better understanding of podcast preferences in children.

2.3.3 The role of humour in narrative listening

When narrative listening preferences were explored in detail, the most frequently mentioned theme was humour, with parents/guardians reporting that more than 40% of children enjoy comedic stories. Few parents elaborated on the *types* of comedic elements their children enjoyed. However, where specific information was provided, parents suggested that their children enjoyed stories that featured slapstick or crude humour, bizarre humour, or comedic pranks (Figure 7). While humour is not typically included amongst traditional lists of literary genres (Clark & Foster, 2005), it may represent an important element, specifically in child-directed media. For example, literary humour has been proposed to alleviate childhood anxieties, worries, and fears and in doing so, has been suggested to be an important support for well-being (Xeni, 2010). Moreover, learning to engage appropriately with humour can provide significant prosocial benefits throughout development, and may provide a lifelong resource for responding to both everyday challenges and traumatic events (see Bergen 2021 for review). It would be interesting to examine which humorous elements drive engagement with auditory narratives in more detail, and to assess the extent to which podcasts and audiobooks engage humour to deal with circumstances that might otherwise give rise to anxiety or fear.

2.3.4 Limitations

The current study focused on gaining a broad picture of how children are engaging with spoken narrative materials across formats. As such, the sampling frame was not restricted (except that study documentation was only provided in English) and the study was designed for remote delivery to remove potential geographic barriers. However, we did not collect information about the sex/gender, race/ethnicity, or socioeconomic status of

our survey respondents or the children in their care, and thus cannot make any inference about the role these factors may play in story listening behaviours. In future, a more fulsome consideration of how individual differences in story listening may relate to these demographic dimensions may be informative.

It was reported that a plurality of children (21/53 children [39.6%]) in the current study commonly listen for twenty minutes or more at a time, whereas only 4/53 children (7.5%) were described as listening for five to ten minutes on average per session (Figure 3). However, these listening durations are substantially shorter than the average listening durations of adults reported by Tattersall-Wallin and Nolin (2020), who found that young adults aged 18 to 20 years listen to audiobooks for ninety to one hundred minutes per day. Although the longest duration presented as an option in the current survey may have included respondents who listen considerably longer than twenty minutes per session, this discrepancy in length between children and adults mirrors that observed for other media types (Nielsen, 2016; American Academy of Child & Adolescent Psychiatry, 2020). Indeed, children's media such as books and television shows tend to be shorter in length than similar media intended for adults (Writer's Relief, 2009). Nevertheless, future research may consider more fine-grained options for listening durations exceeding twenty minutes.

Chapter 3

3 Story Engagement Experiment

The responses from the listening survey directly informed the creation of six stories used to measure listening engagement in children aged 9-12 years. The age range for this study was narrowed slightly from the range used in the listening survey (8-13 years) in order to reduce any developmental differences in our group that might impact story listening or rating ability.

3.1 Methods

Children aged 9-12 were recruited, via their parents/guardians, to participate in an online study of narrative engagement. Data from twenty-six children were included in this study: 20 who, in addition to rating stories designed to be engaging, rated the first draft of a deliberately unengaging story (Boring Story A) and 6 who heard a revised unengaging story (Boring Story B). Two of the children who rated Boring Story A did not respond to attention checks and were therefore excluded from analyses. Recruitment information for the study was circulated via social media, and interested parents/guardians emailed the researcher(s) for access to the study link. The experiment took approximately 30 minutes to complete. Once the study was completed, the parents/guardians received a \$5 Indigo gift card for their children via email. All experimental procedures were approved by the University of Western Ontario Non-Medical Research Ethics Board.

3.1.1 Story Materials

Based on the survey responses, 6 short (5-6 minutes each) stories were developed in collaboration with a children's author: 1) a fantasy story, 2) a funny story, 3) a realistic story, 4) an adventure story, and 2 intentionally unengaging stories (Boring Story A & B). Engaging stories featured elements of comedy, action, suspense, and social conflict. The protagonists of the engaging stories were school-aged youths engaging in fun activities or interacting with friends. Conversely, Boring Story A featured a young girl getting ready for school, eating breakfast with her brother, and riding the bus with her friend, while Boring Story B featured a man completing errands that are generally

unfamiliar to children (renewing one's car registration, finding a parking spot, and buying printer paper). In each case, the boring stories were relatively uneventful and featured repetitive and mundane tasks. The boring stories also included lengthy descriptions of mundane tasks or objects (e.g., picking out a shirt or finding a parking space). The author was asked to ensure that the reading level was consistent across all stories and was suitable for the youngest children in our sample (9 years of age). We also requested that the stories be similar in length; each story had a word count between 900 and 1100 words.

A voice actor was hired to read the stories aloud in a clear, engaging manner suitable for children. The stories were read aloud by an adult male native English speaker from Canada. Recordings were made using Ableton Live 10 via a Shure SM-58 microphone at a sampling rate of 44.1kHz. A noise gate was applied with a -42.3db threshold to remove extraneous noises (i.e., background sounds, breathing).

3.1.2 Questionnaire Materials

Currently, there are no validated questionnaires to assess listening engagement in children. Therefore, the current study employed an adapted version of the Story Word Absorption Scale (SWAS; Kuijpers et al., 2014). The SWAS was developed to quantify adults' experiences of being absorbed in the world of a story. The authors identified 5 main dimensions thought to comprise the experience of absorption based on evaluations of how individuals engage with narratives in film, literature, games, and other media. The five dimensions were: attention, which describes readers' focus on the story world and loss of awareness of the 'real world'; emotional engagement, which describes a reader's feelings of sympathy and empathy for characters, as well their identification with characters in the story; mental imagery, which describes whether readers have certain story-related imagery in mind while reading the story; transportation, which describes the feeling of entering the story world; and enjoyment, which the authors hypothesized was actually an outcome of absorption rather than a component of absorption itself.

As the scale was not developed or validated for use in children, adaptations to the scale items were made for use in the present study. These adaptations were made to preserve

the dimensions used in the original scale while making the scale more age-appropriate for our sample of 9-12-year-olds. The length of individual items was shortened, per recommendations from Royeen (1985), the language was simplified, and items were removed for which the wording was overly abstract or potentially confusing for children (Mellor & Moore, 2013). Negatively worded items were also avoided (Marsh, 1986).

While the original SWAS contained between 3 and 5 items per dimension, for a total of 23 items, our adapted SWAS was distilled to 2 items per dimension for a total of 10 items. Finally, while the original SWAS featured 7-point Likert scales, our adapted scales were reduced to 5 items per the suggestion of Mellor and Moore (2013) and in line with previous adaptations for children in this age range (Lau and Lee, 2001; Borgers and Hox, 2001). Children as young as 5 have been shown to be capable of using 3- and 5-point Likert scales (Chambers & Johnson, 2002); thus the 5-point scale was chosen in order to ensure that children's responses were as fine-grained as possible while ensuring the scale was age-appropriate.

3.1.3 Experimental Procedures

Prior to beginning the experiment, children and their parents completed a short demographic survey on Qualtrics. Children were then directed to the experiment which was written in jsPsych and hosted on Pavlovia. Each child was asked to listen to three different short stories (2 engaging, 1 unengaging), with the option to take a break in between; story order was pseudorandomized so that each engaging story was presented with equal frequency; each participant therefore heard the same unengaging story and two pseudorandomly selected engaging stories. After each story, participants completed the adapted SWAS (adapted from Kuijpers et al., 2014), to measure engagement, and a comprehension questionnaire in order to confirm that they were paying attention to the story. Each comprehension questionnaire consisted of six multiple choice questions relating to the content of the story, with four possible answers. In order to ensure participants were attending to the experiment, a simple visual response task was included during story presentation in which participants pressed a button on their keyboard whenever a visual stimulus (in this case, a number) appeared on the screen. Participants who failed to respond to these visual stimuli were excluded from analysis ($n = 2$).

3.1.4 Data Analysis

The adapted SWAS included a total of 10 items that addressed 5 dimensions of engagement. For each participant, the scores for the 2 items that addressed each dimension were averaged together to produce separate measures of attention, enjoyment, emotional engagement, mental imagery and transportation for each story. In addition, these five average scores were summed to generate a composite measure of engagement that could range between 5 and 25. A linear mixed effects model was applied to the composite engagement scores acquired from the first 20 participants who each heard two engaging stories and Boring Story A to test for the effect of story type on engagement ratings. Because Boring Story A was found to be no less engaging than the stories based on survey responses, a second unengaging story (Boring Story B) was created that replaced the relatable story of a child getting ready for school with an unrelatable story of an adult renewing their driver's license and shopping for office supplies. A linear mixed effects model was applied to the story rating data from the 6 participants who heard two engaging stories and Boring Story B to test for the effect of story type on engagement ratings. For both models, SWAS scores were the dependent variable, story type was a fixed effect, and participant was a random effect. Finally, comprehension scores (i.e., the number of questions answered correctly following each story) were compared using a linear mixed effects model. All analyses were conducted in R (R Core Team, 2020) using the lmerTest package (Kuznetsova et al., 2017).

3.2 Results

For the group that listened to Boring Story A, there was no effect of story on rating ($F(4, 38.71) = 0.72, p = 0.59, \eta^2 = 0.07$; Figure 8), suggesting that ratings did not differ significantly between Boring Story A and any of the other stories.

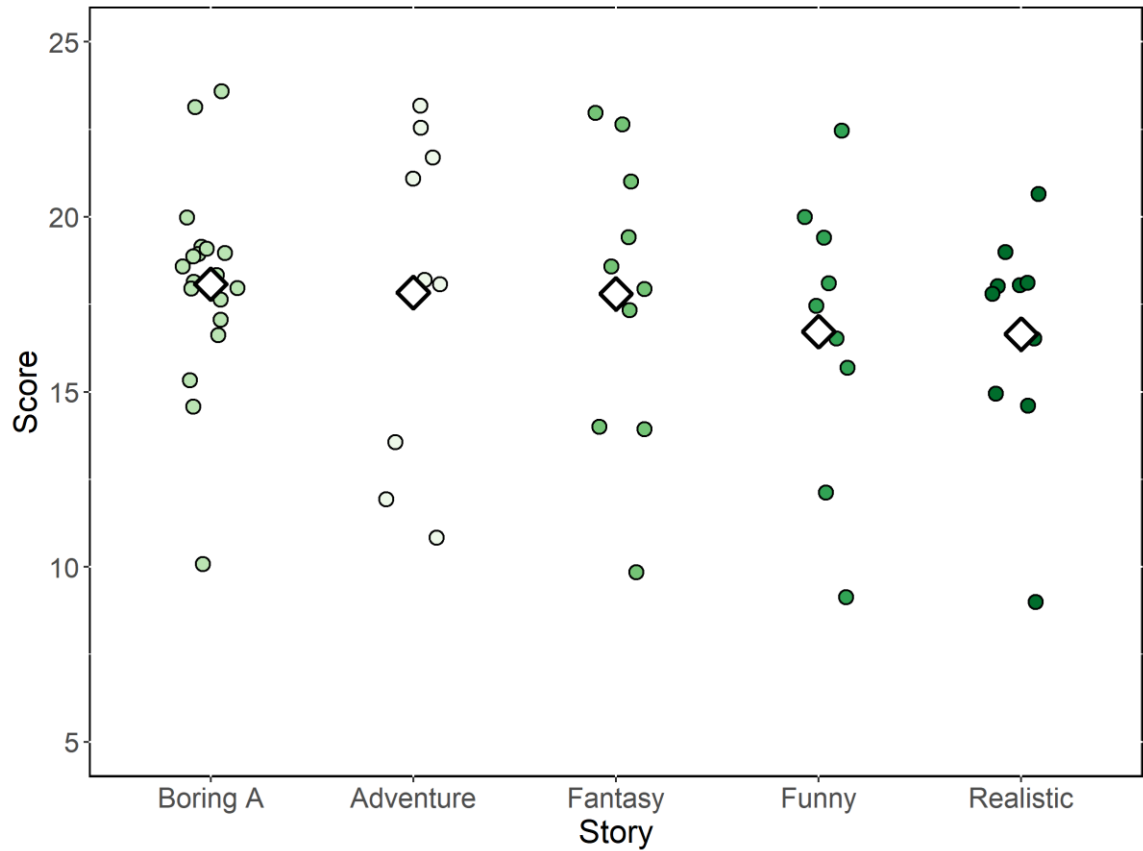


Figure 8. Story ratings for first round of testing. Composite scores reflect the sum of the mean Likert scores across the 5 dimensions tested, such that scores range between 5 and 25. Average ratings, indicated by bolded diamonds, for each of the five stories heard in the first round of testing that included Boring Story A. Dots indicate individual participant ratings for each story.

A second linear mixed effects model applied to the story rating data acquired from an additional 6 participants who each heard two engaging stories and Boring Story B also indicated no effect of story on rating ($F(4, 8.43) = 3.41, p = 0.06, \eta^2 = 0.62$; Figure 9). Mean scores for each dimension across all 6 stories can be found in Figure 10.

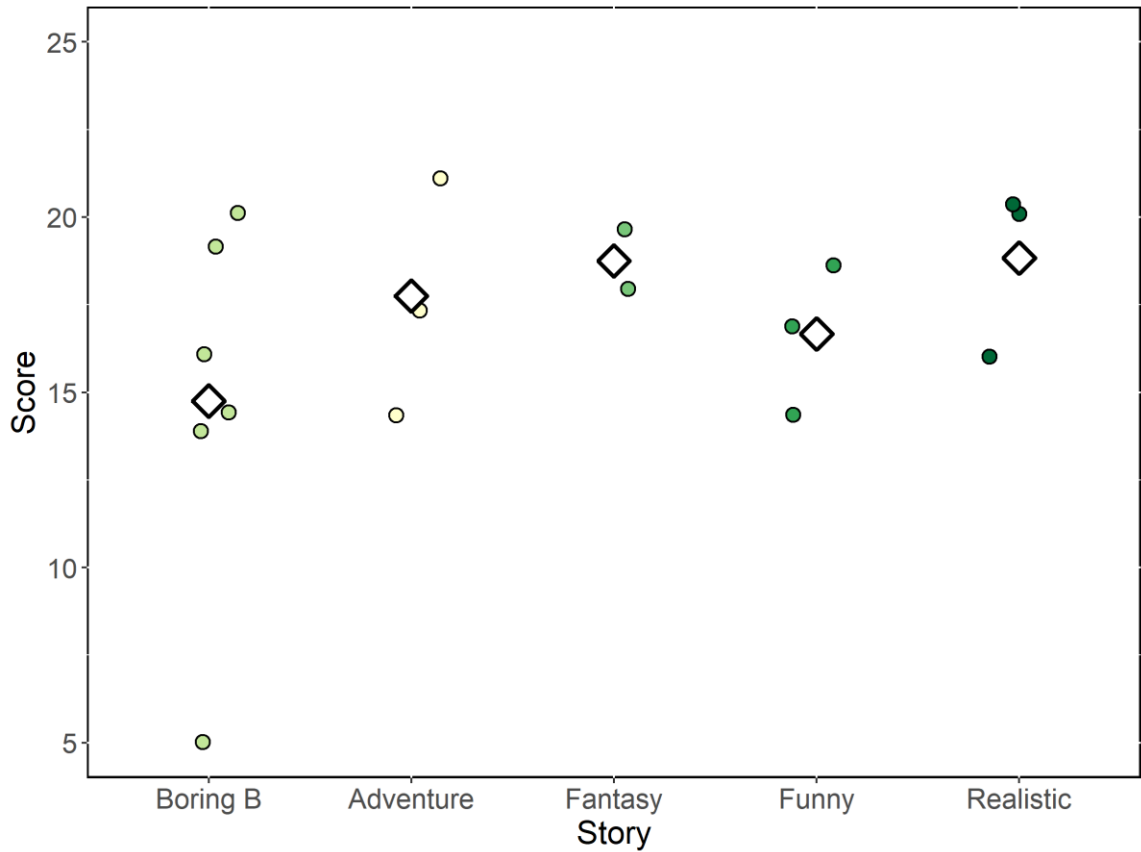


Figure 9. Story ratings for second round of testing. Composite scores reflect the sum of the mean Likert scores across the 5 dimensions tested, such that scores range between 5 and 25. Average ratings, indicated by bolded diamonds, for each of the five stories heard in the second round of testing that included Boring Story B. Dots indicate individual participant ratings for each story.

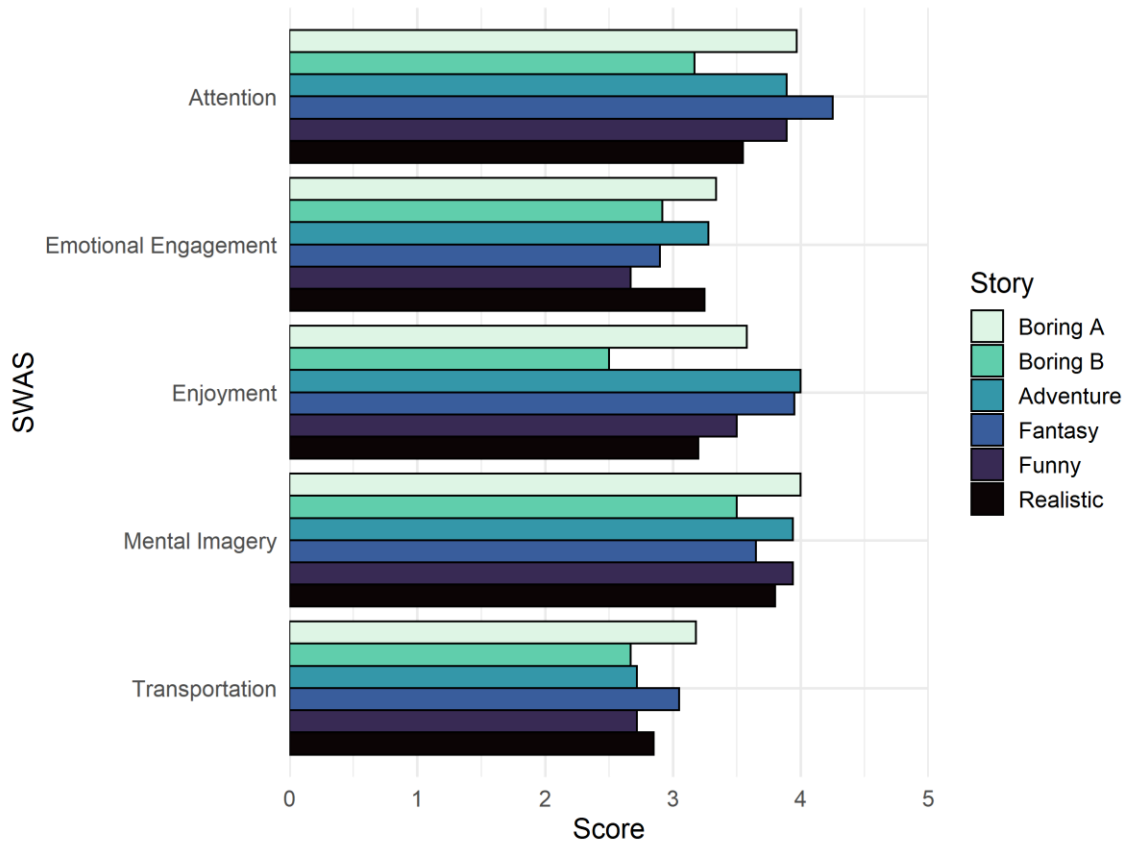


Figure 10. Average SWAS scores. Average scores on the adapted Story World Absorption Scale across each item of the five scale dimensions for all six stories.

Because enjoyment was not considered a component of engagement on the original SWAS (Kuijpers et al., 2014), additional linear mixed models were applied to the data which excluded the items intended to measure enjoyment. The model applied to the story ratings for Boring Story A indicated no effect of story on ratings ($F(4, 38.09) = 0.94, p = 0.45, \eta^2 = 0.09$). Similarly, the model applied to story ratings for Boring Story B indicated no effect of story on ratings ($F(4, 8.34) = 2.50, p = 0.12, \eta^2 = 0.55$).

Comprehension questions were answered with equal accuracy for each of the six stories; a linear mixed model applied to the data indicated no effect of story on comprehension scores ($F(5, 61.43) = 2.30, p = 0.06, \eta^2 = 0.16$; Figure 11).

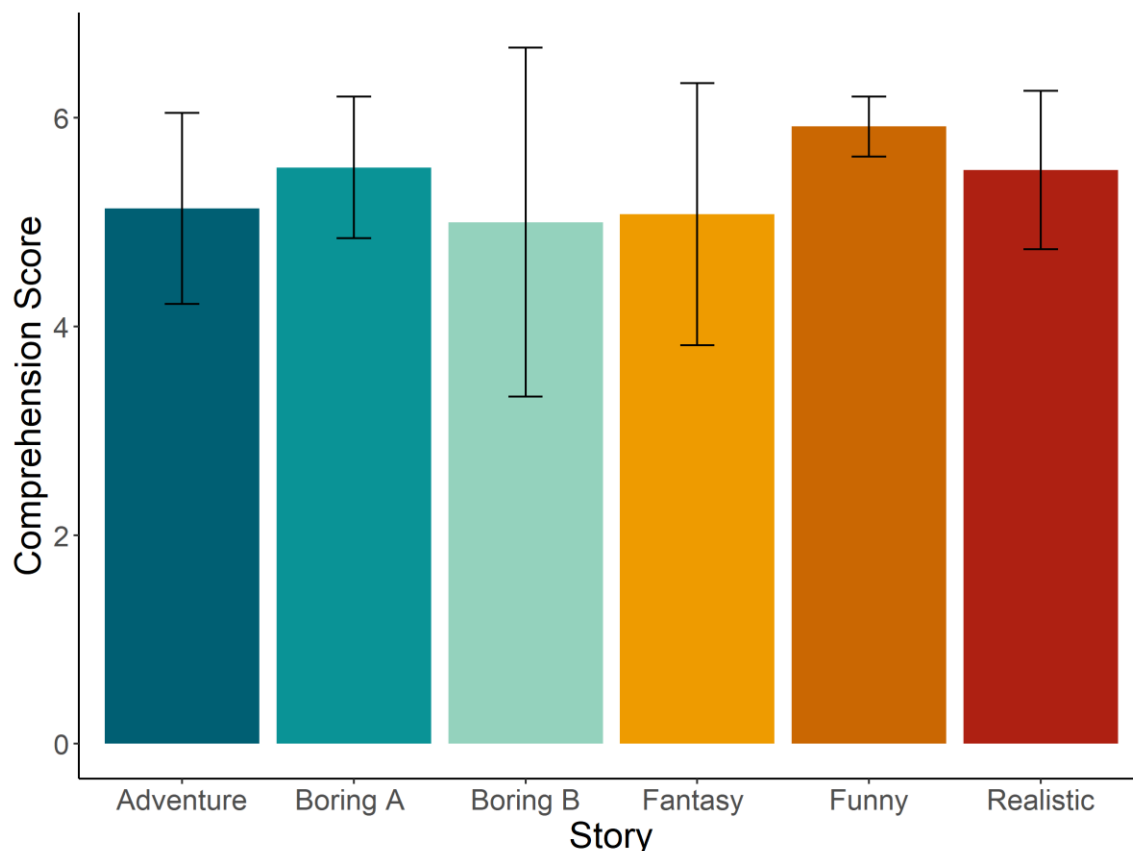


Figure 11. Comprehension Scores. Average comprehension scores across participants for each of the six stories heard in both rounds of pilot testing. Error bars represent standard deviation.

3.3 Discussion

Despite the knowledge that motivation plays a critical role in supporting listeners' ability to engage with speech, current studies of listening engagement typically use short, isolated words or sentences that do not intrinsically motivate listening (see Gangé et al., 2017, for review). Herrmann & Johnsrude (2020a) have suggested that using spoken stories as listening materials would provide a more ecologically valid measure of listening engagement. In order to study engagement with spoken narratives in children, we must first explore the nature of stories that best engage children in a given age group. Thus, the current study used the results of our listening survey to develop four engaging stories and two boring stories specifically targeting 9-12-year-old children. Children

listened to these stories and provided engagement ratings using an adapted version of the Story World Absorption Scale (Kuijpers et al., 2014) for each.

Interestingly, neither Boring Story A nor Boring Story B was shown to differ significantly from the engaging narratives on measures of engagement. There are several possible explanations for this finding. Firstly, it might be that the stories designed to engage young listeners were not, in fact, engaging, despite the survey results that informed their creation. At the very least, however, it appears that the children were successfully able to attend to the stories; comprehension scores for all six stories were high and there was no difference in comprehension between stories. It is also possible that children at this age are not capable of providing accurate or reliable self-report data on narrative engagement, or that the tool used to measure engagement was inaccessible to children in this age range. As this is the first study of its kind to examine children's engagement in spoken stories, it is unclear whether abstract concepts like listening engagement or some of the prompts provided as part of the adapted SWAS are accessible to children at this age. It is also possible that the children enjoyed listening to the stories regardless of their quality, as the alternative would be to perform the visual response task in silence.

Future studies could investigate whether children enjoyed the specific stories presented or simply enjoyed being read to by posing questions that more directly assess a child's interest in each story, such as "If you could, would you choose to listen to this story again later?". Finally, the stories were read aloud by a voice actor who intentionally read the stories in a highly engaging manner. Therefore, it is possible that the voice itself was engaging enough that the actual content of the stories became less consequential to children's overall impressions of engagement and enjoyment. Future work might reproduce recordings of the stories used here to investigate whether reading the stories in a more monotonous, boring voice would impact engagement ratings.

3.3.1 Limitations

In regard to the pilot engagement study, there are several limitations that may have impacted the validity of engagement ratings. First, it is possible that parents' reports in

the listening survey did not accurately reflect the actual preferences of their children. Future studies might improve upon the current work by asking children directly which story elements they find most engaging rather than relying on parental reports. Conducting more extensive post-listening interviews with children may also be useful in capturing the extent to which the different stories developed here engaged the children; it would also be of interest to better understand their impression of the boring stories, in order to understand what may have influenced the similarity in ratings between boring and engaging materials.

It is also possible that the engaging stories were not accurate reflections of the elements described by parents, and thus were not particularly engaging to the children in our sample. One future method to explore this possibility would be to include an excerpt of a child's favourite story alongside the short stories developed for the current study, which would enable a direct comparison between stories that are known to engage a child and novel study materials. Using excerpts from a child's favourite story would also allow us to determine whether children are able to accurately rate their engagement with a story that they have previously reported enjoying; if children indicate that they enjoy a story, but do not give it engagement ratings significantly higher than a boring story, this would support the idea that children of this age group cannot accurately report their own engagement in spoken stories or that the adapted SWAS is not an effective tool for measuring listening engagement in children. Asking children to use the adapted SWAS scale to rate stories they have previously identified as being engaging could therefore be a useful step in validating this measure for use with children.

Chapter 4

4 Conclusions

The media landscape is rapidly evolving and the availability of podcast/audiobook platforms as entertainment and educational media for children is expanding. The current study comprises a critical step in understanding how children engage with emerging narrative formats. Specifically, we explored how children aged 8-13 years engage with spoken stories, investigating the duration, format, and frequency of story listening as well as the qualities of spoken stories that children enjoy most. Reading aloud with an adult remains very popular. However, nearly half of the children who listen to narrative materials do so via podcasts and/or audiobooks. Despite integrating parents' responses into the stories we developed, children's ratings of the boring stories did not differ from their ratings of the engaging stories. This finding presents opportunities for new areas of research on the topic, including the creation of a validated children's listening engagement scale, examining the impact of the vocal quality of the speaker on engagement ratings, and obtaining a clearer understanding of children's story preferences as reported by the children themselves. As reading for pleasure is known to decline across this age range, developing a more complete understanding of how children engage with these emerging formats may be critical to supporting continued engagement with written materials. Furthermore, the development of engaging stories for children aged 9-12 is an important step toward improving research on listening engagement and listening effort in children.

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Appendices

Appendix A: Story Transcripts

Adventure Story

By Blake Hoena

Jessie pedaled hard to the top of Mucker Mountain. She was exhausted. Her legs burned. Sweat stained her shirt, and she was covered in dirt from the trail. But Jessie knew the effort was all going to be worth it on the harrowing ride down. With one hand, she held on to a tree to balance herself on her bike. With the other hand, she reached down for her water bottle. She took a few gulps before she heard Kelson roll up behind her.

“What took you so long?” Jessie asked with a teasing smile. “Got hung up on some rocks,” Kelson replied. “Just wait until the trail down,” Jessie said. “There are some wicked switchbacks.” After taking a few swigs from his water bottle, Kelson said, “I’m ready when you are.” “Okay, keep up if you can!” Jessie yelled excitedly. She pushed off and sped down the trail. Kelson followed the best he could. Soon, the trail dipped downward, and they picked up speed. Dirt and rocks crunched under their tires. Wind whistled through their helmets. Branches slapped at their arms. Jessie shot down a drop, and then up the side of a tabletop, getting air as she flew over it. “Woo hoo!” she shouted. Behind her, she heard Kelson whoop as hit the same jump.

As they raced downward, Jessie felt her bike move fluidly beneath her. She felt it shudder each time she rode over a tree root. She heard her tires skid on the dirt as she sped around a turn. At the top of a short climb, Jessie stopped and turned back to see Kelson pedaling hard up the steep rise.

But that’s not all she saw. Behind her friend, an enormous, furry brown creature had stepped onto the trail and turned towards them. Kelson saw Jessie’s eyes go wide with fear. “What wrong?” he grunted as he continued to pedal. “It a bear,” she said, pointing

behind him. “A grizzly, I think.” “A what?” Kelson said, confused. He was about stop and look back, but Jessie urgently waved him on. “Don’t stop!” She shouted. “Go. Go! GO!” “What about—” Kelson started to say. “Just go!” Jessie yelled as she watched the bear start lumbering their way. Kelson pedaled past her, and she quickly followed. The bear was maybe 50 feet away. But they were going fast. They had gravity on their side as they shot downhill. But now, when they went over a jump, there were no whoops of excitement. They breathed a sigh of relief at not crashing. They did not pause after a steep climb, but shifted into a higher gear and sped back up.

The friends were quickly nearing a section of the trail called Bobsled—a series of switchbacks that sent riders back and forth on a twisting path down the side of mountain. It was the most difficult part of the trail. Jessie dared a glance back. The bear had fallen behind them, but it was still following them. In front of her, she could tell Kelson was struggling. This was a fast part of the trail, and he rode nervously. He kept hitting his brakes through the turns, causing his back tire to lock up and skid. Jessie watched as, around one switchback, he slid dangerously close to the top of the turn. “Brake before you . . .” she tried to yell to him. But he did it again on the next switchback. He locked up his back tire as he was going around the turn, and it skidded out from under him.

“Ahhhh!” Kelson screamed. His bike flew over the top of the turn while he tumbled down the trail in a cloud of dust. Jessie pulled up to him. She didn’t know what to be more worried about—whether her friend was hurt or the bear behind them. “You okay?” she asked. “Can you get up?” “Yeah, yeah, I’m okay,” he grunted, sitting up. “But where’s my bike? Where’s the bear?” They both turned to see the bear lumbering down the trail like a locomotive on its tracks. Only, what was headed toward them had teeth and razor-sharp claws. Jumping to his feet, Kelson shouted, “Where’s my bike? I can’t find my bike!”

Jessie’s heart sank as she looked down the slope of the mountain. Kelson’s bike was lost below in a tangle of branches and thick brush. And with the bear getting closer and closer, they didn’t have time to look for it. They could feel its heavy footfalls shake the ground. They could hear its huffs of breath as it ran. “We gotta get out of here!” Kelson

said, turning to run downhill. “No, don’t!” Jessie shouted. Her mind was racing, and she could hear her heart thumping in her chest. But Jessie had watched enough nature shows to know that if they ran, it might mistake them for prey. “What are we gonna do?” Kelson cried as the bear was not more than 20 feet away. “Do what I do,” she said.

Jessie quickly hopped off her bike. Then she picked it up, raising it over her head. “Hey, bear! Get!” Jessie began to shout. “Shoo. Get! Scram!” Kelson spread his arms wide, and he also began to yell, “Don’t eat me! I stink. I taste bad!” The bear stopped about 10 feet from them. Its body was massive—wider than the trail they were on. Its head looked big enough to swallow them whole. Jessie and Kelson continued to shout any and everything that came to mind. The bear grunted and looked from Jessie to Kelson, as if deciding which of them would make the better meal.

Then it suddenly turned and disappeared into the trees. Jessie and Kelson both let out a sigh of relief. “That was some quick thinking,” Kelson said. “I couldn’t rely on your stink to keep the bear away,” Jessie joked, smiling. “Hey, I didn’t know what else to say,” Kelson said. Jessie pretended to take a big whiff of air and then said, “Well, it’s true.” Kelson turned from her and began to walk down the trail. “Hey, I was just teasing,” Jessie said. “I know,” Kelson said. “But I want to find my bike and get off this mountain in case that bear comes back.” “Wait up! I’ll help,” Jessie said, following him.

Balloon Boy

By Blake Hoena

Stewart couldn’t believe it had happened again. He had ducked into the door on the left side of the hallway instead of the one on the right. The difference? The door on the right led to the boys’ bathroom. The one on the left, the door he went through by mistake, that went to the girls’ bathroom! But when a bully like Derek Stuckley was stalking you through the halls of Filmore Middle School, you didn’t have much time to think about which door went where. You simply got out of sight as fast as you could.

Thanks to the biggest, baddest bully in school, Stewart had made this mistake before, and he had become very familiar with the girl's bathroom—more so than any boy his age should be. He knew it really wasn't much different than the one he was supposed to be in. Both had stalls to do your business—whatever stinky business that might be. Both had a row of sinks with mirrors in front of them. And both smelled about the same—horrible. Only, in the girl's bathroom perfume mixed with the typical bathroom stench to make the air even more toxic. Well, there was another big difference. There were girls in here with Stewart, and they were all glaring at him.

“Stewart, get out!” Lizzy yelled. “Why are you in here?” Malika shouted. If he were anyone else, Stewart would have simply said, “Excuse me. Pardon me. Hi, Lizzy! She you in math class, Malika.” Then he'd turn and run out the door, hoping that Derek was nowhere to be seen. But Stewart was Stewart, and awkward moments like this usually got even more embarrassing for him because of his superpower. Well, his power was more strange than super. Having your head, hands, and feet blow up like balloons wasn't a power anyone really wanted. At least not Stewart. Not when he lost control of his powers every time he got embarrassed. Especially not when he got stuck in the girl's bathroom, because his head was the size of a pumpkin and no longer fit through the doorway. But that's where Stewart was, again, when the warning bell for sixth period went off. BZZZ! BZZZ! As Lizzy and Malika and all the other girls filed out of the bathroom, they pushed Stewart aside. “Out of my way, Balloon Boy,” Lizzy said. “If only I had a pin,” Malika teased. “Then, pop!”

Not only did Stewart's hands and feet grow to enormous size, but he also grew lighter and lighter the more embarrassed he felt. And since he was about as ashamed as he could be at this moment, he slowly drifted upward, like a balloon, toward the ceiling. He was thankful there wasn't a ceiling fan in the girl's bathroom, though that might have made it smell less noxious. Stewart hung there for several moments after the girls had left. There really wasn't anything else he could do. The only way he was going to get back down was by releasing some gas. And that wasn't going to happen until he overcame his embarrassment. Stewart felt like he might be stuck in there for days. Weeks even. If only he had brought a snack.

Then the door creaked open. At first, Stewart thought it might be his nemesis, Derek, sneaking in to torment him. But a familiar voice whispered, “Stewart, are you there?” It was Pat, his best friend. “Up here, Patrick” Stewart said. “Whoa!” Pat said. “You’ve gone full on balloon-mode.” “Can you help me out of here?” Stewart asked. “Yeah, give me your belt,” Pat said. Stewart did as he was told, and soon Pat was pulling him, by his belt, toward the door. It was a tight fit getting Stewart out of the girl’s bathroom. Pat had to tug and tug, and nearly tugged Stewart’s pants off, but with a loud screech, Stewart squeezed through the doorway. “This is so embarrassing,” he said. “Maybe you should wear a mask,” Pat said, pulling Stewart down the hallway as he floated along. “Like other superheroes, so no one recognizes you when you blow up.” “But everyone in the bathroom saw me,” Stewart said. “And everyone knows I’m the inflatable Balloon Boy.” “Then maybe a cape would help,” Pat said. Stewart rolled his eyes and shook his head. People like Patrick never understood how difficult it was having a superpower, especially one like Stewart’s.

Now that he was out of the girls’ bathroom, Stewart was feeling a little more like himself. That was a good thing, because then he had control over his powers. He could let out some gas. The bad thing? Derek Stuckley was stomping down the hall toward him. He was an ogre of a kid, and looked like one, too. An ogre that is. “What are you doing here?” Pat asked. “You’re supposed to be in class.” “I got a bathroom pass,” Derek replied, holding up a note that said Potty Time. Pat started to pull his friend the other way, to escape the bully, but Stewart stopped him. “It’s okay,” he said. “Balloon Boy’s got this.”

Stewart, floating a few feet off the ground, turned to face Derek. “I’m not afraid of you,” Stewart said. “You should be,” Derek growled, as he pounded his fist into the palm of his hand. But before the bully could take another step, Stewart expelled the air that had puffed him. And, as everyone knows, the gas coming out of a boy Stewart’s age was as toxic as any bathroom smell. That blast of air nearly blew Derek off his feet, and a cloud of thick, greenish stench formed around the bully. “I’m going to be sick!” Derek gagged. “Hack! Cough! Ack!” The sudden release of air also sent Stewart spiraling down the hallway. Ppphhhtttbblll!!! Patrick grabbed onto Stewart’s belt, and was dragged along,

screaming, “AHHHhhhh!!!” And a cloud of greenish stench followed, filling up the hallway.

Boring Story A

By Blake Hoena

Beep! Beep! Karen’s alarm clock went off. She reached out from under her blankets to hit the snooze. “Ugh, it’s way too early to get up,” she mumbled and went back to sleep. A few minutes later . . . Beep! Beep! Her alarm clock went off again, but before she could hit the snooze again, there was a knock on the door. Knock! Knock! “Karen, it’s time to get up or you’ll be late for school,” her mom said. Karen didn’t care. She was tired. Instead of studying for her math text, she had stayed up late last night watching some funny TikTok videos that her friends had posted. Malik’s was the best. So she laid in bed for a few more minutes until there was another knock on her door. Knock! Knock! “Honey, breakfast is ready,” her dad said. “Your eggs are getting cold.” “Okay, okay, I’m getting out of bed,” Karen said.

She threw off her covers. Then she went to her closet to find something to wear. Since she wore a red shirt yesterday, Karen picked out a blue shirt. She also put on a skirt and socks. When she went to find her tennis shoes that matched her blue shirt. “Ugh, where did I put those tennis shoes,” she said. Karen looked under her bed. She looked in her closet. She even looked behind her dresser. She couldn’t find the shoes that she wanted to wear with her blue shirt. So she decided to wear her yellow shirt instead. Yellow was her favorite color. Then she found some shoes she like to wear with her yellow shirt.

Karen left her bedroom. She walked to the kitchen and sat down at the table next to her brother, Sam. “Hey, don’t forget to comb your hair,” Sam said with a smile. Karen saw a hair tie on the kitchen counter. She grabbed it, pulled her hair back, and put it in a ponytail. “Nope,” she said, sticking her tongue out at Sam. Their dad set a plate of scrambled eggs, toast, and bacon down in front of them. “Does anyone want orange juice?” he asked. “Sure,” Sam said. “No,” Karen said. “What, no ‘thank you?’” their dad

said. “Where are your manners?” “Sure, thank you,” Sam said. “Um, no thanks,” Karen said rolling her eyes. Their dad poured Sam a glass of orange juice while Karen drank water. Then they began eating their scrambled eggs, toast, and bacon.

After they finished eating, Sam and Karen put their dirty dishes in the sink. Their dad would wash the dishes for them. Then Karen went to the bathroom to brush her teeth and check on her ponytail. When she was satisfied that it looked okay, she went to her room to get her backpack. Karen checked to make sure her math book was in her backpack. Math was her favorite subject, and she had a test today. It was an open book test, so she did not want to forget her math book. Karen hoped to do well on the test. Karen’s mom walked by her room. She poked her head in and said, “It’s almost 7:30. The bus will be here soon.” “Okay,” Karen said as she slipped her back pack over her shoulder.

Then she headed out the front door. Her bus stop was down the street a block. It didn’t take her too long to get there. Sam was already standing in line with the other kids waiting for the bus. “Hey, Karen,” a girl at the front of the line said. Her name was Beth. They were in the same grade together, but they didn’t have any classes together. “Hey, Beth,” Karen said with a wave. Karen stood in back of the line as they waited for the bus. At exactly 7:30, she saw the bus round a corner and head their way. It stopped right before Beth. She got on the bus first and everyone else followed.

When Karen got onto the bus, she saw her friend Marcia sitting toward the back. She waved to Karen. “I saved you a seat,” Marcia said. Karen walked to the back of the bus and sat next to Marcia. “Thanks for saving me a seat,” Karen said. Once everyone was seated, the bus rumbled away. “Are you ready for the test today?” Marcia asked. “I studied all last night.” “I studied some,” Karen said. “But it is an open book test, so it shouldn’t be too difficult.” “I guess you’re right,” Marcia. The bus stopped a few more time to pick up some more kids. By time they reached school, there was hardly any place to sit. The bus was full.

When the bus stopped in the school parking lot, everyone stood up and got off. Sam and his friends quickly ran inside. But Karen and Marcia walked over to their friend Malik. “Hey, Malik,” Marcia said. “What’s up?” Karen said. “Not much,” Malik replied. “I had

to say up all last night studying for our math text.” “But it’s an open book text,” Marcia said. “It shouldn’t be too difficult.” “Hey, that’s what I said,” Karen said. Marcia and Karen laughed. “Huh?” Malik said. “I don’t get the joke.” “That’s okay,” Karen said. “You had to be there.” “Yeah,” Marcia added. Then the warning bell rang. Buzz. Buzz. “We better get to class,” Marcia said. “Yeah, I don’t want to be late,” Malik said. “Good luck on the math text,” Karen said as they head toward their school lockers.

Boring Story B

By Sarah Bobbitt

One day there was a man who had some errands to do. The man woke up had some toast and drank a coffee. He drank 256 millilitres of coffee. Then he got dressed. He put on a tie. Then he put on his shoes and walked out to his car. Then he opened the car door, got in the car, and sat down. Then he put on his seatbelt. He fastened his seatbelt. He started the engine of the car and looked in his back mirrors. He was looking to make sure no traffic was coming. He waited to see if any cars drove by. No cars drove by. Once he was sure there was no traffic coming, he pulled out of his driveway.

The man drove to the office where he had to fill out some forms. The forms were to get his car registration renewed. To get there, he drove 0.8 kilometers and then took a left. Then he drove 1.3 kilometers and took a right. Then he drove 347 meters and took another right. Then he pulled into the parking lot and parked his car. He walked inside the building. He walked up to the desk and told the receptionist he needed to fill out a form to renew his car registration. The receptionist told him to take a number. He walked over to the machine that dispensed pieces of paper with numbers printed on them. His number was 1087. He walked over to a chair and sat down in the chair. He waited for 3 minutes and 26 seconds. Then someone called his number. They said, “number 1087”. He looked at his piece of paper. It also said 1087. So he stood up and walked over to the desk.

The woman at the desk told him he would have four forms to fill out. He had to fill out a form that needed three signatures, four initials, and three dates. That form was called a

2T-78ML. Then, he had to fill out another form that needed two signatures, six initials, and three dates. That form was called a 9-BF6T. Then, he had to fill out a form that needed his licence number and a signature. That form was called a PD4-59. Then, he had to fill out a form with personal information. That form was called a 63-INF7. The form asked him for his name. It also asked him for his date of birth. It also asked him for his home address. It also asked him for his phone number. It also asked him for the name and contact information for his emergency contact. For his emergency contact, he decided to list his friend Bob. He wrote: "Bob Adams. Email: bob_adams@gmail.com. Phone number: 555-3827." Then he was done filling out the form. He handed the forms back to the woman and gave her back the pen. Then the woman remembered that there was one more form that he needed to fill out. She passed him the form and passed him the pen again. It needed two more signatures and the date. The man filled it out and passed her the form and the pen again. Then the woman said that all the forms were filled out. She told him that he would hear back from their office within fourteen business days.

Then the man walked out of the building. He got into his car again. He put on his seatbelt. He turned on the engine. He pulled out of the parking lot. He needed to go to the office supply store next. He couldn't decide which office supply store to go to. The office supply store in town was closer, but it was small. The office supply store in the other town was further away, but it was bigger. He drove to the other town. That town had the biggest office supply store, so he decided to drive to that town even though it was further away from the other town. He drove there. It took him an extra 8 minutes and 48 seconds. Once he got there, he drove into the parking lot. The parking lot was very full. He had to drive around the parking lot a few times to try to find a parking spot. He finally found a spot. When he started to pull into the spot, he realized his car might not fit. So he kept driving and looked for another parking spot. Then he found one. He pulled his car into the spot.

He walked through the parking lot and then walked inside the store. He picked out a shopping basket. He thought about getting a cart, but then he decided that he wouldn't need a one. He was only getting a few things. So he picked a shopping basket. That would be a better size for the amount of items he was getting. He walked through the

aisles with his cart. He went to aisle four. Aisle four had printer paper. There were different types of printer paper there. He almost went down aisle three accidentally but then remembered that the printer paper was in aisle four. He looked at the different kinds of printer paper. One brand had 250 pages of A4 sized paper that was 95 grams per square meter for 2 dollars and seventy nine cents. He thought that paper might be good. Then, he saw another brand that had 400 pages of A5 sized paper that was 80 grams per square meter for three dollars and nineteen cents. He thought that paper might be good too. Then he saw another brand that had 325 pages of A4 sized paper that was 90 grams per square meter for 2 dollars and ninety nine cents. He decided to go with the first brand, that sold 250 pages of A4 sized paper that was 95 grams per square meter for 2 dollars and seventy nine cents.

Fantasy Story

By Blake Hoena

Marcus peered into the cavern, careful not to disturb the sleeping dragon. “Is it there?” Taliah asked from behind him. “Shhh,” Marcus whispered. “I don’t know.” While the cavern was completely dark, they knew the dragon was inside its den. They could feel the heat its body gave off. Hear its scales scraping against the rock with every breath it took. Suddenly it snorted, and a small spark of flame shot from the dragon’s snout to light up the rocky chamber. “I see!” Marcus quietly exclaimed, pointing to the far wall.

There stood a rusted suit of armor. It looked like its pieces had been fused together by fire—dragon fire! But that wasn’t what Marcus was excited about. It was the Amulet of Ravengoth hanging around the neck of the dead knight inside that armor. The amulet was a talisman important to the Order of Wizards, and recovering it was the price the friends had to pay in order to join their ranks. Then a second later, sight of the amulet was lost as the cavern was plunged back into darkness. “Here’s the fireweed powder,” Taliah whispered, handing Marcus a small pouch. “There’s only enough for one spell.” “I

know,” Marcus replied. “So you’d better be ready to distract the dragon.” Taliah held up her broom. “I am.”

Marcus didn’t know who had the more dangerous part of their plan. Him, for having to sneak into the cavern to grab the amulet. Or her, for having to lead the dragon away. It would be a miracle if they both survived. He held up his wand and chanted, “Ignite-o!” The end of his wand lit up like a torch to reveal the long, rocky tunnel that led to the dragon’s den. “Okay, here I go,” he said, not bothering to whisper anymore. He strode into the dragon’s lair. Its body nearly filled up the cavern, forcing Marcus to skirt around it, with his back to the rocky wall. He quietly and slowly made his way toward the far wall of the cavern where the amulet was.

When he was about halfway, the dragon’s head suddenly shot up into the air. The beast coughed a ball of flame up into the air, causing Marcus to cower from the heat. Then the dragon whipped its head around to look at him. Its emerald-colored eyes were piercing, and Marcus felt his courage slipping from him as the dragon began to inhale. “Now, Marcus, the spell!” Taliah shouted from outside the cavern. That’s when Marcus remembered the pouch of fireweed clutched in his hand. He threw it up into the air and chanted, “Protect-o” as a reddish powder filled the space between him and the dragon.

Not a second later, the dragon let forth a fiery blast that would have turned rock into magma. But Taliah’s spell worked. Instead of Marcus being enveloped in an inferno of flame, all he felt was a hot wind filtering through the fireweed powder. Then, thinking that Marcus had been turned into a hunk of coal, the dragon turned on Taliah. But she was already on her broom. Before the dragon took its first lumbering step toward her, she was off, flying down the narrow tunnel, guided only by the small light at the end of her wand. Taliah zigged and zagged as she sped through the twisting tunnel. She could feel the heat from the dragon as it chased after her, but she didn’t dare look back for fear of crashing into a rocky wall. And if she didn’t lead the dragon all the way out of its den, there would be no escape for Marcus, who was now taking the amulet from the dead knight. She felt the dragon’s fiery breath licking at her broom, and once reached back to

find it in flames. She batted out the fire with one hand while holding on to the broom handle with the other.

Taliah could hear the rumbling sounds of the dragon's body as it came lumbering down the cave and crashed into the wall. Luckily for her, the tunnel was narrow and slowed the dragon's pursuit. While it was difficult for her to fly at full speed, the rocky walls also made it impossible for the dragon to spread its wings and fly after her. Then up ahead, she saw daylight. Taliah shot out into the open, just as a jet of flame erupted from the tunnel. Her broom was scorched and smoldering, and didn't have much flight left in it. Taliah hopped off, and chanted, "Escape-o!" The empty broom zoomed away trailing smoke behind it. Just as the dragon burst out of the tunnel, Taliah ducked behind a tree. The beast's eyes tracked the disappearing broom. Then it spread its wings wide, blocking out the sun. With a beat of its massive wings, the dragon lifted into the air and was soon racing after Taliah's broom.

Not long after, Taliah heard Marcus scampering down the tunnel. "Ooh, ooh, hot-hot-hot!" he was crying as he crawled out. "I should have brought gloves!" Taliah ran over to him. "Do you have it?" she asked, excitedly. Marcus reached under his shirt and pulled out the amulet that now hung around his neck. Smiling, he said, "Got it!" "The Order of Wizards has to accept us now," Taliah said. "Maybe we should worry more about getting away before the dragon catches up to your broom," Marcus said. The friends turned and quickly sped off, heading in the opposite direction that the dragon had gone.

Realistic Story

By Blake Hoena

Tou watched from the dugout as Jenn stepped up to home plate. "Come on, Jenn!" he shouted. "Just like last time." Not only was she one of his best friends, Jenn was also one of the Eagle's best hitters. Her last at bat, she hit the ball deep into the outfield and scored their team's first run. They were now ahead 1 – 0 over the Hurricanes. Tou watched as

Jenn prepared to swing at the next pitch. He saw the catcher signal to the pitcher, and then the pitcher grinned. Tou had a bad feeling as the pitcher wound up and let loose.

Even before the ball reached the plate, Jenn was ducking. It smacked her on the back of her left shoulder with a loud THUMP! Jenn groaned in pain. "Take your base!" the umpire shouted. Jenn trotted toward first base. Her face was twisted up in a grimace. Tou glanced over to the pitcher, who still wore that annoying grin. He hit her on purpose, Tou thought. Then he turned back to his friend. "Come on, Jenn, shake it off!" he shouted encouragingly.

The next batter struck out, and then it was the Eagle's turn to take the field. Before heading to his position, Tou grabbed Jenn's glove. He and Jenn were the heart of the Eagle's infield. He played shortstop, and she was the second baseman. Or would that be second baseperson? he wondered. As Tou handed Jenn her glove, he asked, "You okay?" "Yeah, I'm fine," she grumbled, grabbing her mitt from him. "He did it on purpose," Tou said. "I know," Jenn said, turning away. Tou couldn't tell if Jenn was angry at the pitcher, or at him. This wasn't the first time an opposing player hit her with a pitch just because she was a girl. It probably wouldn't be the last. Tou just wished he could do something to stop it.

When it was the Eagle's turn to bat again, Tou headed back to the dugout. He tried talking to Jenn some more, but she just waved him off. Jenn grabbed an ice pack and sat at the end of the bench, away from the rest of their teammates. Tou grabbed his batting helmet and bat to prepare for his turn to bat. As he stepped up to the plate, he felt his frustration growing into anger. He was upset that Jenn wouldn't talk to him. He was angry at the pitcher for hitting Jenn with a pitch. He was mad at himself for not being able to do anything about it all. All he could think about was taking his anger out on something, and that something was the baseball.

He swung as hard as it could at the first pitch. Crack! He hit the ball out of play. Tou did the same thing the next pitch. Crack! Another foul ball. The third pitch came in fast, and it seemed to be headed right at him. Tou leaned back as the ball smacked into the catcher's glove. When Tou turned to look at the pitcher, he saw that annoying grin again.

It was too much. His anger was boiling over. He dropped his bat and stomped towards the pitcher's mound. Tou took satisfaction in seeing the kid's grin turn to a look of fear. "Try that again!" Tou shouted. "I dare you to hit me like you hit Jenn!"

Before the kid could reply, the umpire was pulling him back toward homeplate. "If you don't cool down, you're taking a seat on the bench," the umpire warned. "Okay, fine," Tou mumbled. The next pitch came in fast, right over the middle of the plate. But Tou was so upset, with tears welling up in his eyes, he couldn't even see the ball. "Strike!" the umpire yelled. "You're out." With his shoulders slumped, Tou walked back to the dugout. He plopped down on the bench, alone.

The rest of the game didn't go much better for Tou. He couldn't get a hit, but luckily, the Eagles won 5–4. Mostly because Jenn continued to play well despite her sore shoulder. After the game was over, and everyone high-fived each other in celebration, his teammates eventually said their goodbyes. That left Tou and Jenn sitting on the bleachers. Tou had his bike, but he was waiting with Jenn until her parents came to pick her up. She held an ice pack to her sore shoulder. "How's it feel?" Tou asked. "It's gonna be sore tomorrow," Jenn replied. "Good thing I'm right handed." "I can't believe that pitcher hit you," Tou said. "Just because you're a girl." Jenn squinted her eyes and gave him a piercing look. "Really? That's what you think—because I'm a girl?" she accused. "Why not because I drove in our first run? Why not because he couldn't strike me out? Why not because I'm our best hitter?" With each question, her voice got a little louder, a little deeper, and Tou felt like sinking farther and farther into the bleachers. He was embarrassed that he had not thought of any of those reasons.

Before he could come up with a reply, or say he was sorry, Jenn's dad drove up. "I'm outta here," Jenn said. She jumped down from the bleachers and ran over to the car. But before hopping into the passenger seat, she stopped and looked over at him. He could see the tears welling up in her eyes. "Thanks for sticking up for me during the game," she said, finally cracking a tiny smile. Turning away, she hopped into the car. As it rumbled away, Tou smiled. Despite all that had happened, he knew his friendship with Jenn was still solid.

Appendix B: Adapted Story World Absorption Scale

Attention

1. I was focused on what happened in the story.
2. It felt easy to pay attention to the story.

Transportation

3. I sometimes felt like I was in the story world too.
4. When I finished listening, it felt like I had taken a trip to the world of the story.

Emotional Engagement

5. I could imagine what it must be like to be in the shoes of the main character.
6. I felt how the main character was feeling.

Mental Imagery

7. I could see or imagine the situations happening in the story.
8. I could imagine what the world of the story looked like.

Enjoyment

9. I thought it was fun to listen to the story.
10. I thought it was an interesting story.

Appendix C: Comprehension Questions

Funny

Story

1. Where did Stewart go to hide from the bully?
 - a. The cafeteria
 - b. The girl's bathroom**
 - c. His math class
 - d. The boy's bathroom

2. How can Stewart gain control of his powers and deflate?
 - a. He has to be popped with a pin
 - b. He has to be scared
 - c. He has to cast a spell
 - d. He has to get over his embarrassment**

3. What nickname do the other kids give to Stewart?
 - a. Inflatable Kid
 - b. Bubble Boy
 - c. Balloon Boy**
 - d. Mr. Beachball

4. How does Pat get Stewart down from the ceiling?
 - a. Pat pulls Stewart down by his belt**

- b. Pat inflates too, and flies Stewart back down
 - c. Pat catches Stewart with a net
 - d. Pat yells at Stewart and tells him he'll be late for class
5. How did the bully find Stewart again when he was supposed to be in class?
- a. He skipped class
 - b. He told the teacher he was sick
 - c. He had a hall pass**
 - d. He was leaving early for an appointment
6. How does Stewart defend himself from the bully at the end of the story?
- a. Stewart yells at the bully
 - b. Stewart tells the teacher
 - c. Stewart asks the bully to stop
 - d. Stewart releases his gas and the bully is disgusted**

Fantasy Story

1. What were Taliah and Marcus looking for in the cave?
- a. The Amulet of Ravengoth**
 - b. The Goblet of Ardenshire
 - c. The Wand of Witherdon
 - d. The Helmet of Harkencrow

2. Why are Taliah and Marcus trying to get the amulet?
 - a. It's worth a lot of gold
 - b. It's a family heirloom
 - c. So that they can join the Order of Wizards**
 - d. Because it has magical powers

3. Where was the Amulet of Ravengoth found?
 - a. In the arms of the dragon
 - b. Around a dead knight's neck**
 - c. Hanging from a branch
 - d. Behind a secret staircase

4. What did the fireweed powder do?
 - a. Gave Marcus the ability to fly
 - b. Made Marcus invisible
 - c. Protected Marcus from the dragon's fire**
 - d. Made the dragon fall asleep

5. Why couldn't the dragon fly through the cave?
 - a. Taliah put a spell on it
 - b. The cave was too narrow**
 - c. It was too tired
 - d. Its wings were clipped

6. How does Taliah get rid of the dragon?
 - a. **She sends her broom flying away so the dragon will chase it**
 - b. She creates an explosion in the cave
 - c. She casts a spell on the dragon to confuse it
 - d. She creates a fake clone of herself

Realistic Story

1. What does the pitcher do that makes Tao angry?
 - a. He keeps throwing the ball in the wrong direction
 - b. He hits Tao with the ball on purpose
 - c. He yells at Jenn and tells her to get off the field
 - d. **He hits Jenn with the ball on purpose**
2. What is the reason that Tao thinks the pitcher is purposely hitting Jenn?
 - a. Because Jenn's the best on the team
 - b. **Because Jenn's a girl**
 - c. Because the pitcher and Jenn got in a fight earlier
 - d. To get back at Tao
3. What does Tao do when it's his turn at bat?
 - a. **Dares the pitcher to hit him**
 - b. Leaves the field in embarrassment

- c. Gets in a physical fight with the pitcher
 - d. Scores a home run
4. Who wins the game?
- a. Tao and Jenn's team, The Eagles**
 - b. The opponent's team, The Hurricanes
 - c. Tao and Jenn's team. The Hawks
 - d. The opponent's team, The Tsunamis
5. How does Jenn react when Tao says the pitcher hit her because she's a girl?
- a. She agrees with him
 - b. She begins to cry and asks Tao what she should do about it
 - c. She laughs it off and says she doesn't care
 - d. She gets angry and says it was really because she's a great player**
6. How does Tao feel about his friendship with Jenn at the very end of the story?
- a. He worries that they might not be friends anymore
 - b. He is glad that they are no longer friends anymore
 - c. He knows that despite everything, their friendship is still strong**
 - d. He is angry at Jenn for being rude to him and confronts her about it

Adventure Story

1. Where were Jessie and Kelson biking?

- a. Lucky Lake
 - b. Rushing River
 - c. Mucker Mountain**
 - d. Crick's Cave
2. What makes Bobsled the hardest part of the trail?
- a. The zig-zag turns, called switchbacks
 - b. The looping banks, called pump tracks
 - c. The large flat jumps, called tabletops
 - d. The raised mounds of earth, called berms
3. What does Kelson do while he's biking from the bear?
- a. He crashes while going off a tabletop
 - b. He hides from the bear in the woods
 - c. He falls off the trail while turning on a switchback**
 - d. He accidentally bikes into a lake
4. Why did Kelson fall off the trail?
- a. He hit the breaks at the wrong time**
 - b. He got distracted
 - c. He couldn't see the trail
 - d. He fell in a puddle
5. How do Jessie and Kelson scare away the bear?

- a. By banging pots and pans together
 - b. By shouting and waving their arms**
 - c. By asking it politely to leave
 - d. By throwing their bikes at it
6. What does Kelson yell at the bear?
- a. Don't eat me! I stink! I taste bad!**
 - b. Hey, look over there! A squirrel!
 - c. Please don't eat me, I have a family!
 - d. I bet you won't even eat me, you chicken!

Boring Story A

1. Why was Karen up late before her test?
- a. She couldn't sleep because she was nervous for her test
 - b. She was up late studying all night
 - c. She was up watching TikTok videos**
 - d. She was up watching YouTube videos
2. Why did Karen change her shirt?
- a. She spilled orange juice on it
 - b. She couldn't find her matching shoes**
 - c. She noticed a hole in it

- d. Her brother said it didn't look good
3. What did Karen do with her hair in the morning?
- a. Put in in a braid
 - b. Washed it
 - c. Put it in a ponytail**
 - d. Brushed it
4. What subject did Karen have a test in?
- a. Science
 - b. English
 - c. History
 - d. Math**
5. What did Karen eat for breakfast?
- a. Eggs, toast, and bacon**
 - b. Cereal
 - c. Nothing
 - d. Waffles with strawberries and maple syrup
6. What kind of test did Karen have?
- a. A multiple choice test
 - b. A pop quiz
 - c. An essay-based test

d. An open book testBoring Story B

1. What did the man do before leaving his driveway?
 - a. He turned on the radio
 - b. He made sure there was no traffic coming**
 - c. He checked his email
 - d. He pulled out of the garage

2. Why did the man have to fill out forms?
 - a. To renew his car registration**
 - b. To apply for a fishing license
 - c. To renew his health card
 - d. To take a test for his driver's license

3. Who did the man write down as his emergency contact?
 - a. Bob Adams**
 - b. Billy Anderson
 - c. Jerry Putnam
 - d. George Bluth

4. Why did he choose the office supply store that he went to?
 - a. It was closer
 - b. It was larger**

- c. It was less expensive
 - d. He had a coupon
5. What did the man choose to put his office supplies in at the store?
- a. A shopping cart
 - b. A shopping basket**
 - c. A tote bag
 - d. He just carried them in his hands
6. What did the man buy at the store?
- a. Staplers
 - b. Graph paper
 - c. Printer paper**
 - d. Pens

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