Research report

Nutritional quality of foods marketed to children in Honduras

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Abstract

Evidence suggests that exposure to advertising of unhealthy foods may contribute to increased rates of obesity in children. This study examined the extent to which television stations marketed unhealthy foods to children during after-school programming aired over one week in La Ceiba, Honduras. Content analysis was performed on four television stations, including one broadcast station and three cable networks. Eighty hours of programming were recorded and analyzed. Advertised products were categorized as food or non-food items, with food items further classified as healthy or unhealthy. Advertisements were coded as those aimed at children, adults, or both, and chi-square tests were used to compare the proportion of unhealthy advertisements by target audience. A total of 2271 advertisements aired during the observation period, with 1120 marketing products (49.3%). Of those, 397 (35.4%) promoted foods—30.2% were for healthy foods and 69.8% for unhealthy foods. The unhealthy foods were all advertised on cable networks and not the broadcast station. Children appeared to be targeted more than adults in advertisements for unhealthy foods (92.1%, p < 0.001). Cable television programming during after-school hours advertised primarily unhealthy foods. Exposure to these advertisements may promote consumption of unhealthy foods by children, increasing their risk of obesity.

Introduction

Food marketing has a powerful impact on the eating habits of children (Andreyeva, Kelly, & Harris, 2011; Boyland & Halford, 2013; Harris et al., 2009; Kaiser Family Foundation, 2004; Roberto et al., 2010; Veerman, Van Beeck, Barendregt, & Mackenbach, 2009). Studies have shown that children as young as three years of age are able to identify commercials during television programming; however, most children do not fully understand the persuasive intent of such advertising (Graff, Kunkel, & Mermin, 2012). Further, both children and their parents can establish preferences for certain products with as little as a single commercial exposure, and such predilections are strengthened by repeated exposures (Kunkel et al., 2004; Pettigrew et al., 2013). These preferences, in turn, affect children’s requests and ultimately parents’ purchases of food products (Andreyeva et al., 2011; Costa, Horta, & dos Santos, 2012; Díaz Ramírez, Souto-Gallardo, Baracáti Gascón, & Jiménez-Cruz, 2011; Institute of Medicine, 2006). It is notable that the majority of studies examining food advertising to children have been conducted in high-income countries. However, similar effects are seen in both developed and developing nations, and food marketing of unhealthy foods to children has become a global issue (Guran & Bereket, 2011; Kelly et al., 2010). The food industry is now targeting a worldwide market, partnering with global advertising agencies to market their food and beverage products to low- and middle-income countries (Hawkes, 2002; Hawkes, 2006). Gupta and colleagues cite advertising by transnational food companies as one of the most important determinants of childhood obesity in low-income countries (Gupta, Goel, Shah, & Misra, 2012). Cecchini et al. contend that restricting marketing of unhealthy foods to children is an effective method for reducing obesity in the developing world (Cecchini et al., 2010). Nearly a decade ago, the World Health Organization released its Global Strategy on Diet, Physical Activity and Health (2004), calling on governments to regulate food marketing of unhealthy foods to children. However, global marketing of unhealthy foods appears to be rising (Guran & Bereket, 2011; Harris, Pomeranz, Lobstein, & Brownell, 2009; Hawkes, 2007; Kelly et al., 2010).
Rates of childhood obesity are also increasing globally, especially in Latin America (Ogden et al., 2010; Wang & Lim, 2012; Wang & Lobstein, 2006). Much of the research evaluating food marketing in Latin America, however, has focused on programming targeting children in Mexico or Spanish-speaking children on the border between the United States (U.S.) and Mexico. In 2007, Thompson and colleagues analyzed two national Spanish-language television stations in the U.S. (Telemundo and Univision) during typical after-school hours. They found that a large number of commercials for food and drinks were aired during that time, most of which were deemed to be unhealthy (Thompson, Flores, Ebel, & Christakis, 2008). In 2011, Barroso and colleagues evaluated English- and Spanish-language television networks along the Texas–Mexico border (Barroso, Rodriguez, & Camacho, 2011). They focused on Saturday morning programming, and also found that many food advertisements promoted consumption of foods of poor nutritional quality. Of note, Barroso and colleagues commented that children in Texas and Mexico are exposed to many advertisements that encourage further viewing of television – and thus more sedentary behavior (Barroso et al., 2011).

Kunkel, Mastro, Ortiz, and McKinley (2013) analyzed advertisements aired during 158 Spanish-language children’s television programs and compared them to English-language programming in the U.S. The authors found that the prevalence of food-related advertisements was lower during Spanish-language programming, but the nutritional quality of the foods and beverages marketed was considerably poorer (Kunkel et al., 2013). A large study in Mexico in 2009 came to similar conclusions, analyzing five stations on both weekday afternoons and weekend mornings. The researchers found that children were systematically more exposed than adults to advertisements for unhealthy foods (Ramírez-Ley et al., 2009). The authors stated that food-related advertising in Mexico was similar to that in the U.S., and suggested that the food industry was acting against federal laws recently enacted to limit such marketing in Mexico (Ramírez-Ley et al., 2009). Bell and colleagues reviewed advertisements aired on 12 U.S. networks, including Spanish-language networks, during after-school and Saturday morning hours. They found that 25% of commercials advertised food, and that three quarters of these advertisements were for foods high in fat or sugar. Just over 25% of these advertisements were marketing fast-food restaurants, especially on the Spanish-language networks (Bell, Cassady, Culp, & Alcalay, 2009).

These studies suggest that food advertising to Spanish-speaking children is prevalent and may promote less healthy foods, but little is known about such marketing in Honduras. Moreover, previous studies have not assessed the extent to which advertisements differ on broadcast compared to cable television stations. The purpose of this study was to categorize the nutritional quality of foods and beverages depicted in television commercials aired during children’s after-school programming in Honduras and assess the proportion of advertisements targeting children.

### Materials and methods

#### Television stations

The study was performed in the city of La Ceiba, on the Northern Coast of Honduras. With a population of roughly 150,000 people, it is the third-largest city in Honduras. This location was chosen because it offered complete access to all television programming broadcast across Honduras. Television stations are located in either Tegucigalpa, the national capital in the southern part of the country, or San Pedro Sula, the industrial center in the western region. The city of La Ceiba receives all broadcasting from both cities. Telecadena is the only public-access television station that broadcasts a full block of programming every weekday that specifically targets school-age children. Thus, Telecadena was the only broadcast station considered in this study. Three cable stations were also included in this study: the Disney Channel (Disney Enterprises, Inc.), Nickelodeon (Viacom and operated under Nickelodeon Kids and Family Group), and the Cartoon Network (Turner Broadcasting). These stations were chosen based on viewership – they represent the three most watched cable networks in Central America, according to ratings released in February of 2012 by the Instituto Brasileiro de Opiniao Publica e Estatistica (IBOPE, Brazilian Institute of Public Opinion and Statistics) (Brazilian Institute of Public Opinion, 2012). All stations broadcast their programming in Spanish. As this research did not involve human subjects, The Code of Ethics of the World Medical Association for experiments involving human subjects did not apply. Duke University granted a waiver for ethical approval for this study.

#### Data collection

Data collection took place in May and June of 2012. Each television station’s programming was observed for an entire week, Monday through Friday. Weekend television programming was not considered in this study because broadcast programming in Honduras does not specifically target children at those times—their primary focus is in after-school weekday hours. Live broadcasts of programming were viewed and recorded as digital video files each day from 1:30 pm to 5:30 pm. Exactly 20 h were recorded each week, yielding an overall total of 80 h of observation throughout the study, spread equally over the four stations of interest. Recording times were chosen to best represent typical after-school hours for most children in Honduras. While there are several different school schedules in Honduras, the most common school hours are 7:00 or 7:30 am until noon. In an effort to serve more students, some public schools offer a second shift of classes from 12:30 or 1:00 pm until 5:00 pm. However, the morning schedule is most common for the majority of students. Given our research goal of comparing broadcast to cable television programming, these hours represent the time period that children would be most likely to watch television and thus be exposed to unhealthy food advertisements.

#### Review and coding of television advertisements

Video recordings of television programming were reviewed by two coders in July and August of 2012. Each coder reviewed and analyzed all advertisements independently. Thus, all advertisements were double-coded. Initial coding was performed by an investigator on site in Honduras. A research assistant performed a second, independent content analysis, viewing the digital video files via the internet in the U.S. Both were fluent in Spanish, but not native language speakers. We calculated inter-rater reliability and found an initial agreement of 93.9% between the two coders. The majority of discrepancies (123 of 145) involved differentiating between station identification and promotional messages for television programming. All discrepancies were discussed among the research team, with final coding reconciled with the senior author.

First, television content was classified as programs (i.e., shows) and non-programs. Non-programs included promotion of station programming, station identification, public service announcements, and product advertisements. Advertisements were coded using a protocol established by Thompson et al. (2008). Brief sponsorship messages, such as “this program was brought to you by product X”, were considered product advertisements. Product advertisements were further divided as advertisements for food or non-food items. Food-related advertisements were defined as commercials that promoted the purchase or consumption of foods or beverages, including dietary supplements. Food items were
categorized as healthy or unhealthy foods using the classification scheme developed by Ramirez-Ley et al. (2009). Healthy foods included breads and tortillas, non-sweetened cereals, non-sweetened dairy, meats, poultry and fish, fruits and vegetables, and water. Unhealthy foods included sweetened cereals, fast food, candies, cookies, chips and snacks, desserts (including sweetened dairy products), juices, and sweetened beverages (including sweetened fruit juices). Advertisements for dietary supplements, alcohol, and other foods or beverages such as baby foods, were also coded. In addition, commercials for restaurants, grocery stores, and supermarkets were coded as well. In the Ramirez-Ley coding scheme, foods were considered unhealthy if they were high in calories, sugar, or fat, and otherwise relatively low in nutrient content (Ramírez-Ley et al., 2009). We coded all advertisements that marketed unhealthy food items—regardless of any other products that appeared in the message—as advertisements for unhealthy food products. All food advertisements that did not include unhealthy foods were coded as healthy food products.

The orientation or target audience of each advertisement was determined by visual and textual cues, as described by Connor (2006), with textual cues used as the primary determinant in the classification. First, the coder considered whether announcers or characters in the commercial were addressing children only, adults only, or both. Next, and as a secondary consideration, the coder determined the visual orientation of the advertisement. The following visual cues favored orientation toward children: use of animation, famous child celebrities or characters that appealed to children, appearance of pets or other friendly animals or characters, and appearance of children themselves in the advertisement. Thus, if an advertisement appeared to be targeting adults but contained animation that would favor children, we deemed adults as the primary audience. Frequencies and percentages of advertisements for healthy and unhealthy foods were calculated for broadcast and cable television stations separately using SAS version 9.2 (SAS Institute, Cary, NC, USA). Chi-square tests were used to compare the proportion of unhealthy advertisements by target audience.

Results

Overview

A total of 2271 advertisements were recorded during the 80 h of television programming. Advertisements that promoted television stations represented a slight majority (1151 advertisements, 50.7%). Product advertisements accounted for just less than half of this total (1120 advertisements, 49.3%). Of the product advertisements, 397 (35.4%) promoted foods or food-related products. A majority of the food-related advertisements promoted unhealthy foods (277 advertisements, 69.8%) (Table 1). Further, there was a statistically significant difference in the proportion of unhealthy advertisements by target audience (p < 0.001). Most of the advertisements for unhealthy foods on the cable networks targeted children (255 advertisements, 92.1%). Four of the advertisements for unhealthy foods targeted adults only (1.4%), and 18 targeted both children and adults (6.5%).

Broadcast television

Telecadena is the only broadcast television station in Honduras that airs a full block of programming specifically for children during after-school hours. One complete week of programming on Telecadena was viewed and recorded for this study, conducted over the course of five days, four hours each day, for a total of 20 h (excluding weekends). Five hundred and twenty-two advertisements were viewed on this station. The overwhelming majority of advertising promoted the station’s programs (423 of 522, 81.0%). Of the 99 product advertisements shown on Telecadena, 10 (10.1%) were food-related (Fig. 1). All 10 of these advertisements endorsed a supermarket chain named La Colonia; the advertisements portrayed adults purchasing produce and other groceries. There were no advertisements directed at children, and there was no marketing of unhealthy foods.

Cable television

Overall, the combined totals from the three cable networks yielded 1021 product advertisements out of 1749 total commercials (58.4%). Food-related advertising was more frequent on cable television: 387 of 1021 (37.9%) product advertisements were marketing foods or beverages (Fig. 1). Of the 387 food-related advertisements, 277 (71.6%) marketed unhealthy foods. The Disney Channel aired 429 product advertisements, with 195 (45.5%) of them marketing food-related items. Of those, 152 (77.9%) were advertising unhealthy foods. Nickelodeon aired 324 product advertisements, of which 146 (45.1%) advertised food products. Of those, 100 (68.5%) marketed unhealthy foods. Lastly, the Cartoon Network showed 268 product advertisements, with 46 (17.2%) marketing foods. Of those, 25 (54.3%) were advertising unhealthy foods.

Combined totals from all three cable networks yielded 387 food-related ads, with 263 (68.0%) of them targeting children. Of the 263 food-related advertisements that appeared to target children, 255 (97.0%) promoted unhealthy foods. Of the 102 food-related advertisements that targeted adults, only four (3.9%) marketed unhealthy foods. Among food related-advertisements oriented toward both children and adults, unhealthy foods were promoted in 18 of the 32 (56.3%). The most highly marketed food product was sweetened cereals (131 of 397 total advertisements for food, 33.0%) (Table 1). Two stations accounted for much of this total: 129 of those 131 advertisements appeared on either the Disney Channel (69) or Nickelodeon (60). Among the unhealthy foods, fast foods (37 advertisements, 9.3% of all food-related advertisements) and sweetened beverages (30 advertisements, 7.6%) were the second and third most commonly advertised foods. Overall, the most frequently advertised fast food chain in the study was McDonald’s®. Specifically, advertisements for this chain restaurant focused on promoting the McDonald’s Happy Meal™ in 32 of the 37 advertisements.

Among healthy foods, the most commonly advertised foods were non-sweetened dairy products (49 advertisements, 12.3% of all food-related advertisements) and dietary supplements (43 advertisements, 10.8%). None of these commercials specifically targeted children. Of the 49 total advertisements for dairy products, 39 were shown on Nickelodeon—most of these (29) were brief sponsorship messages for Alpura Brand Dairy Products, a company based in Mexico City, Mexico. The Cartoon Network and Disney Channel accounted for all of the marketing of dietary supplements—21 and 22 advertisements, respectively. Throughout the 80 h of observation, there were no advertisements aired for non-sweetened cereals, breads and tortillas, or fruits and vegetables. There were relatively few advertisements for meat products (6 advertisements, 1.5%). All of the commercials in the “other food” category (5 advertisements, 1.3%) marketed baby food products. Finally, there were no advertisements during the observation period for alcoholic beverages or water.

Discussion

The results of this study include two main findings. First, the data suggest that food advertising on broadcast television is not prevalent in Honduras. Telecadena, the only broadcast station in
Honduras was for a supermarket chain. Such findings in Mexico that the only food advertising on the public broadcast station in market chains. This finding is similar to our study, where we noted most frequent food-related advertisement in Brazil was for supermarket. The researchers analyzed advertisements aired in Brazil, along with the findings of our study in Honduras, highlight the need for additional research examining food marketing in Latin America and other low-income countries where childhood obesity rates are rising.

We would expect some cultural similarities between children in Honduras and those of Latino(a) heritage in the U.S. and in Mexico. However, as one of the poorest nations in Latin America, Honduras represents a unique setting that differs significantly from the U.S. and Mexico. For example, according to the Central Intelligence Agency’s World Factbook, there are only 96 television sets per 1000 people in Honduras – a figure that is dwarfed by both the U.S. (803 per 1000) and Mexico (273 per 1000) (Central Intelligence Agency World Factbook, 2013). This could alter the marketing strategies of transnational food companies, many of whom traditionally promote their products on television, but may look to other means of advertising among populations with less access to television programming.

In is unknown, however, the extent to which children in Honduras are exposed to advertisements, as previous research studies have not quantified television or screen time exposure. One study of 116 school-aged children in Brazil found that they did not run any advertisements for unhealthy foods during the week of observation. Second, in contrast to the first finding, advertising of unhealthy foods was common on the cable television stations that targeted school-aged children. On all three cable channels, children were specifically targeted in the vast majority (92.1%) of advertisements for unhealthy foods. Among these channels, the Disney Channel had the highest percentage of food-related advertisements (195 of 429 product advertisements, 45.5%) and the highest percentage of advertisements for unhealthy foods (152 of 195 food-related advertisements, 77.9%). In contrast, the Cartoon Network aired the lowest percentage of food-related advertisements (46 of 268 product advertisements, 17.2%) and the lowest percentage of advertisements for unhealthy foods (25 of 46 food-related advertisements, 54.3%). Nickelodeon fell in the middle for percentage of food-related advertisements and marketing of unhealthy foods. Of their 324 total advertisements, 146 (45.1%) were food-related. Of those 146 food-related advertisements, 100 (68.5%) were marketing unhealthy foods. Previous research in the U.S. found that 88% of food advertisements aired on Nickelodeon during children’s programming promoted unhealthy foods and beverages (Batada & Wootan, 2007), which is consistent with our findings in Honduras.

Few previous studies have examined food marketing aimed specifically at children in Latin America. Ramírez-Ley et al. reviewed advertisements over one week on two local channels and three national channels in Mexico during after-school and weekend morning hours (Ramírez-Ley et al., 2009). They found that 22% of the commercials were marketing food-related items and that half of these advertisements were for unhealthy foods and beverages. Similar to our findings in Honduras, sweetened cereals represented the most commonly advertised unhealthy food in Mexico. Approximately half of these advertisements targeted children (Ramírez-Ley et al., 2009). A study by Kelly et al. (2010) of television programming targeting children in eleven countries included one low-income country. The researchers analyzed advertisements aired in Brasilia, Brazil and found that marketing of unhealthy foods was relatively infrequent compared to the high-income countries included in their sample. They found that the most frequent food-related advertisement in Brazil was for supermarket chains. This finding is similar to our study, where we noted that the only food advertising on the public broadcast station in Honduras was for a supermarket chain. Such findings in Mexico and Brazil, along with the findings of our study in Honduras, highlight the need for additional research examining food marketing in Latin America and other low-income countries where childhood obesity rates are rising.
watched approximately three hours of television daily (Costa et al., 2012). Studies of school children in Mexico found similar results, with children viewing about two to four hours of television daily (Hernández et al., 1999; Lajous et al., 2009). Moreover, school-aged children exposed to more than five hours of screen time each day were substantially heavier than those who watched less than two hours daily (Lajous et al., 2009). In Honduras, however, access to cable television is limited. While there are approximately 570,000 television sets in the country, there are less than 50,000 subscriptions to cable television services (NationMaster., 2013). Thus, transnational food companies targeting higher income families in Honduras may be more likely to advertise on cable stations rather than broadcast television.

There are some limitations to our study. First, this study included a somewhat basic categorization of less healthy foods – those foods and beverages that were high in energy density and low in nutritional value – with little consideration given to specific nutrient content of the products. We used the simple dichotomous model adapted from a study by Ramírez-Ley et al. (2009) because we did not have access to detailed information about the nutritional content of the foods and beverages advertised via television commercials. Additionally, some advertisements promoted brands or companies that manufactured or sold food items – such as McDonald’s and Nestlé – but did not promote any specific food or beverage item, so it would not have been possible to assess nutritional content. Such advertisements were coded as food advertisements, because they were intended to promote the brand, and ultimately the consumption of their products, even if those specific items were not the central feature of the advertisements. Although simplistic, the dichotomous model was useful for this study because it provided a general categorization of foods and beverages marketed to children via television in Honduras. The next step in this area of research could be a more extensive assessment of the nutritional composition of the foods and beverages marketed, as well as actual exposure of children to the advertisements. The dichotomous categorization of foods has been used in previous studies and is appropriate for a cursory examination of foods and beverages marketed to children via television commercials. However, since in-depth nutritional analyses was not conducted on the foods and beverages advertised, there is some possibility of misclassification.

Second, this study did not include children’s actual exposure to these television advertisements. Previous studies have examined children’s behaviors, including recognition of advertised products and requests in supermarkets for products seen on television. The purpose of this study, however, was to describe the prevalence of food-related advertisements targeting children in broadcast and cable television stations in Honduras. Future studies should explore children’s exposure and behaviors associated with viewing these advertisements. Third, observation and recording of television programming was limited to one week, after-school hours only; this study does not account for viewing of programs later in the evenings or on weekends, and the observation week may not be representative of usual programming. Finally, this study did not assess advertising to children by other means beyond television, although children are likely exposed to marketing through a number of different channels, including computers, tablets, and videos, as well as supermarkets, billboards, and other media within their communities.

Conclusions

This content analysis study is the first to characterize food advertising during television programming targeting children in Honduras. Food manufacturers use cable television as a medium to promote their products directly to children, and in Honduras the three major cable networks were advertising a high percentage of unhealthy foods during their television programming. The overwhelming majority of such products marketed to children were categorized as unhealthy. In contrast to the cable networks, broadcast television in the country primarily advertised for a supermarket chain. To our knowledge, there is little to no regulation of food advertising on television in Honduras or other Latin American countries other than Mexico. Within the past few years, several transnational food companies have implemented global policies designed to eliminate marketing of unhealthy foods directly to children under the age of 12 years. However, recent studies such as Roberts et al. (2012) indicate that these measures of self-regulation have been only partially successful, and that further monitoring is required to improve compliance. Hidalgo and Samur (2011) recommend a conceptual framework to guide legislation limiting food marketing to children, and encourage international considerations of public policies regulating advertisements on television. Further, a report issued after a series of meetings between researchers and policy-makers in 2010–2011 highlights the need for standard protocols for analyzing the nutritional quality of foods advertised to children and evaluation of legislation restricting food marketing to children (Lobstein, 2013). This study highlights the need for legislation limiting the advertisement of foods high in energy density but low in nutrients, and may provide useful baseline information for the evaluation of future national policies restricting the marketing of unhealthy foods to children in Honduras.

Appendix A

Dichotomous classification scheme used to categorize foods, beverages, and other products depicted in television commercials aired over one week in Honduras.4

<table>
<thead>
<tr>
<th>Unhealthy foods</th>
<th>Healthy foods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fast food, including hamburgers, fried chicken, and pizza</td>
<td>Fruit and vegetables</td>
</tr>
<tr>
<td>Fried potatoes, including french fries and hash browns</td>
<td>Meats and other proteins, including eggs, poultry, and fish</td>
</tr>
<tr>
<td>Desserts, including ice cream, cakes, pies, candy, and cookies</td>
<td>Breads and tortillas, including corn and flour</td>
</tr>
<tr>
<td>Sweetened cereals</td>
<td>Non-sweetened cereals</td>
</tr>
<tr>
<td>Chips and snacks, including potato chips, tortilla chips, and gummy fruit snacks</td>
<td>Water</td>
</tr>
<tr>
<td>Sweetened beverages, including soft drinks and juice drinks</td>
<td>Non-sweetened dairy products, including milk, cheeses, and yogurt</td>
</tr>
<tr>
<td>Fruit juice</td>
<td>Dietary supplements</td>
</tr>
<tr>
<td>Fast food restaurants b</td>
<td>Restaurants, not including fast food</td>
</tr>
<tr>
<td>Grocery stores and supermarkets</td>
<td></td>
</tr>
</tbody>
</table>

Note: Commercials that advertised a fast food restaurant, but did not promote a specific food or beverage, were coded as unhealthy food advertisements because they were intended to promote the consumption of their products.

4 Adapted from Ramírez-Ley et al. (2009).
Appendix B

Dichotomous categorization scheme used to determine the orientation (target audience) of television commercials aired over one week in Honduras.

<table>
<thead>
<tr>
<th>Advertisements targeting children</th>
<th>Advertisements targeting adults</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animation</td>
<td>Adults or adult celebrities</td>
</tr>
<tr>
<td>Children or child celebrities</td>
<td>Adult-oriented music (e.g., adult genre music such as Top 40, hip hop, country music, R&amp;B) with adults singing</td>
</tr>
<tr>
<td>Pets or animals</td>
<td>Adult-focused voice or dialogue</td>
</tr>
<tr>
<td>Identifiable cartoon or comic strip characters that would appeal to children</td>
<td>Adults or adult celebrities</td>
</tr>
<tr>
<td>Child-focused music (e.g., jingles with a peppy, singsong-like, or catchy beat that appeals to children) with children singing</td>
<td>Adult-oriented music (e.g., adult genre music such as Top 40, hip hop, country music, R&amp;B) with adults singing</td>
</tr>
<tr>
<td>Child-friendly voice or dialogue</td>
<td>Adult-focused voice or dialogue</td>
</tr>
</tbody>
</table>

* Adapted from Connor (2006).

References


