**Supplementary Table 1. Detailed coding framework for child-directed promotional techniques on pack, with examples**

| **Code Level 1** | **Code Level 2** | **Description** | **Examples** |
| --- | --- | --- | --- |
| **A. Child-directed characters** | A1. Cartoon and fantastical characters (52) | * Including but not limited to licensed characters and trademarked characters (e.g., Trix the rabbit, Coco the monkey) * Cross promotional characters (e.g., cartoons from TV shows) |  |
| **A. Child-directed characters** | A2. Children and child-like figures (52) | * Human youth (images of people <14 years of age) * Can be cartoon like or actual human (photo or drawing) |  |
| **A. Child-directed characters** | A3. Personified objects (52) | **Includes packaging and the product itself with the following element/s:**   * Anthropomorphized creature/s * Personified object/s * Personified product/s or ingredient/s * Personified animal/s   *AND the creature/object/animal above is not a licensed/trademarked or branded character (which would be classified under A1)* |  |
| **A. Child-directed characters** | A4. Presence of celebrities (39, 52) | * Child-directed celebrities * Famous sports personnel   *We coded the celebrity in the open coding section and two coders later determined whether the celebrity appealed to children <14 years.* |  |
| **B. Non-character- based elements that appeal to children** | B1. Childhood life references (53):   * Action-adventure * Fantasy * Fun * Mood alteration (e.g., be happy) * Coolness * Peer acceptance | Including (54):   * Consuming/acquiring the food product is described/depicted as ‘cool’ or ‘hip’ * Shows children in groups of friends or other children depicting themes of friendship, peer acceptance, popularity or modelling behaviour of peers. * Shows imaginary characters, situations or events, or uses words ‘fantasy’, ‘imagination’ or similar expressions. * Adventurous activities described or depicted, for example, mountain climbing. * Non-verbal display of happiness (e.g., smiling or playing) or uses words ‘fun’, ‘happiness’ or similar expressions. |  |
| **B. Non-character- based elements that appeal to children** | B2. Gifts (53) | * Free products (toys or gifts) that come with the purchase of the food items * Collectable gifts |  |
| **Non-character- based elements that appeal to children** | B3. Games (53, 55) | The product acts as a vehicle to fun by including:   * Word searches, puzzles, stories or other activities on the box |  |
| **B. Non-character- based elements that appeal to children** | B4. Contests (55) | * The product acts as a vehicle to fun by promoting (or allowing for) other activities. Examples include product packaging that includes a contest or competition to win passes to the zoo or movies, or the product directs children to games on websites or offer the chance to win prizes.   *We coded all contests and two coders determined whether the contest was directed at children <14 years vs adult directed contest (the example on the right would be adult directed)* |  |
| **B. Non-character- based elements that appeal to children** | B5. Unconventional packaging (55) | The packaging of the product includes:   * Non-standard shapes * Unusual colours \* * Elements that attract children’s attention   *\*Note that bright colours were not sufficient to meet this criterion* |  |
| **B. Non-character- based elements that appeal to children** | B6. Name specifically references children (55) | * The product’s name specifically mentions children/child/kid or similar in the title   *NB: this did not include products that are statutorily required to reference things like ‘infant’ e.g., “infant formula”* | Diagram  Description automatically generated |