JOURNEY TO SCHOOL ANNOTATION MANUAL

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Journey to School Annotation Manual – Image data

Study objective:
To examine food environments for children, specifically the availability of unhealthy/healthy foods in the neighbourhoods surrounding schools and home, taking into account the route a child travels to school and the mode of transport used.

The impact of availability on food purchase will also be examined.

Study Definitions:

Food Availability: Refers to the adequacy of the supply of food (FAO,2006; Caspi et al, 2012). Food availability is influenced by the community the retail food supply in a defined neighbourhood.

Food Availability Encounter: When a food outlet is clearly identified in an image. Note: there may be more than one food availability encounter in an image.

Food purchase: Annotater is 100% sure that a series of images show that a food item has been purchased either by the participant or a peer.

Journey to school
Each separate journey to or from school will be treated as a separate item for analysis. The start and finish of each journey have already been recorded on an excel sheet by Michelle Barr for her PhD, and the same images will be used in this analysis so that the two sets of data analysis (Food availability and Outdoor Food Marketing) can be combined following coding.

Accessing Images

Images for the journey to school for each participant can be accessed using a password protected hard drive.

Food Availability Annotation Rules:

1) Coding for availability begins from the first image a child leaves home in the morning until their arrival entering the school grounds.

   During school time images do not need to be coded.

   Coding then begins again once a child has left the school grounds and finishes on entry to home.

2) List the participant number and the image ID details for each image.

3) For an image to be coded as a 'Setting', a food outlet needs to be clearly identified.

4) Coding for each setting, only needs to happen once, however if for example a child walks past an outlet and then after a period of time (5-10 minutes) returns the outlet can be coded again as a second availability encounter.

5) The coding begins with the participant number followed by image no start, where the first image that records a setting e.g fast food outlet can be recorded. The following column is image sequence end – this can be used to put in the final image of either a purchasing/consumption sequence (i.e the series of photos that record a child in a takeaway outlet) or the series of photos that record a journey to school either in the car/bus or walking. Some journeys have components of all three.

Settings: Food outlet
The following food outlet categories will be listed horizontally across the excel sheet. Add 1 to the column to indicate its presence in a photo.

Convenience store
Fast food Outlet
Bakery
Service station
Café
Icecream/Gelato/Yoghurt store
Sweet Shop
Vending machine (non-core)
Sushi Shop
Sandwich shop
Medium Supermarket
Fruit and Vegetable grocer
Large supermarket

Fresh Food Market
Natural Food Store
Juice Bar
Salad Bar
Vending Machine (Core)
Mobile Food Vendor
Other (Core)
Other (NC)

In the notes section record if possible the location and name of the outlet. These details may be deduced from the signage including street signs in the series of images.

BMI Classification

Food outlets will also be classified according to the followed table developed by

Ferguson 2014.

BMI healthy	BMI intermediate	BMI unhealthy
Fruit and Vegetable grocer	Sushi shop	Fast-food outlet
Large supermarket	Sandwich Shop	Bakery
Natural food store	Medium sized supermarkets	Sweet shop
Fresh food Market		
Salad Bar		Petrol Station
Juice Bar		Icecream/Gelato/Yoghurt shop
		Convenience store
		Café*

Café's are not included in Isobel Fergusons classification system as she reasoned they did not contribute a large proportion of energy intake to a childs diet. I have included them in this table as some of the photos show children at cafes after school. Definitions of outlets are listed in the appendix.

Entry to Food Outlet/Purchase

The next column after setting will indicate Entry to a food outlet. Add 1 to the column if food outlet entered.

The next column will indicate Purchase. Add 1 if food item purchased.

The next column indicates the Participant purchased the item. Add 1 if food item purchased by participant.

The next column indicates if food was purchased by a colleague of the participant. In order to determine this the photos prior to the purchase must show the colleague in the images, for example entering the store with the participant. Add 1 to this column if a

food items is purchased by a peer or other colleague (e.g adult caregiver) of the participant.

The next column enables the coded to write what is purchased.

The final column indicates consumption. Add 1 to this if the images clearly show the food item being consumed. Write in notes column what is consumed.

Using this classification the following images can be classified accordingly.

Participant	Image	Large Supermarket	BMI Healthy
nnnnnnn	Nnnnnnn	1	1

Participant	Image	Fresh Food Market	BMI Healthy
nnnnnnn	Nnnnnnn	1	1

Participant	Image	Sushi	BMI Intermediate
nnnnnnn	nnnnnnn	1	1

Participant	Image	Fast-food outlet	BMI Unhealthy
nnnnnnn	nnnnnnn	1	1

Participant	Image	Convenience Store	BMI Unhealthy
nnnnnnn	nnnnnnn	1	1

If a store is entered and the image clearly shows the interior of a store this can be recorded as "indoor" by clicking this tag when annotating.
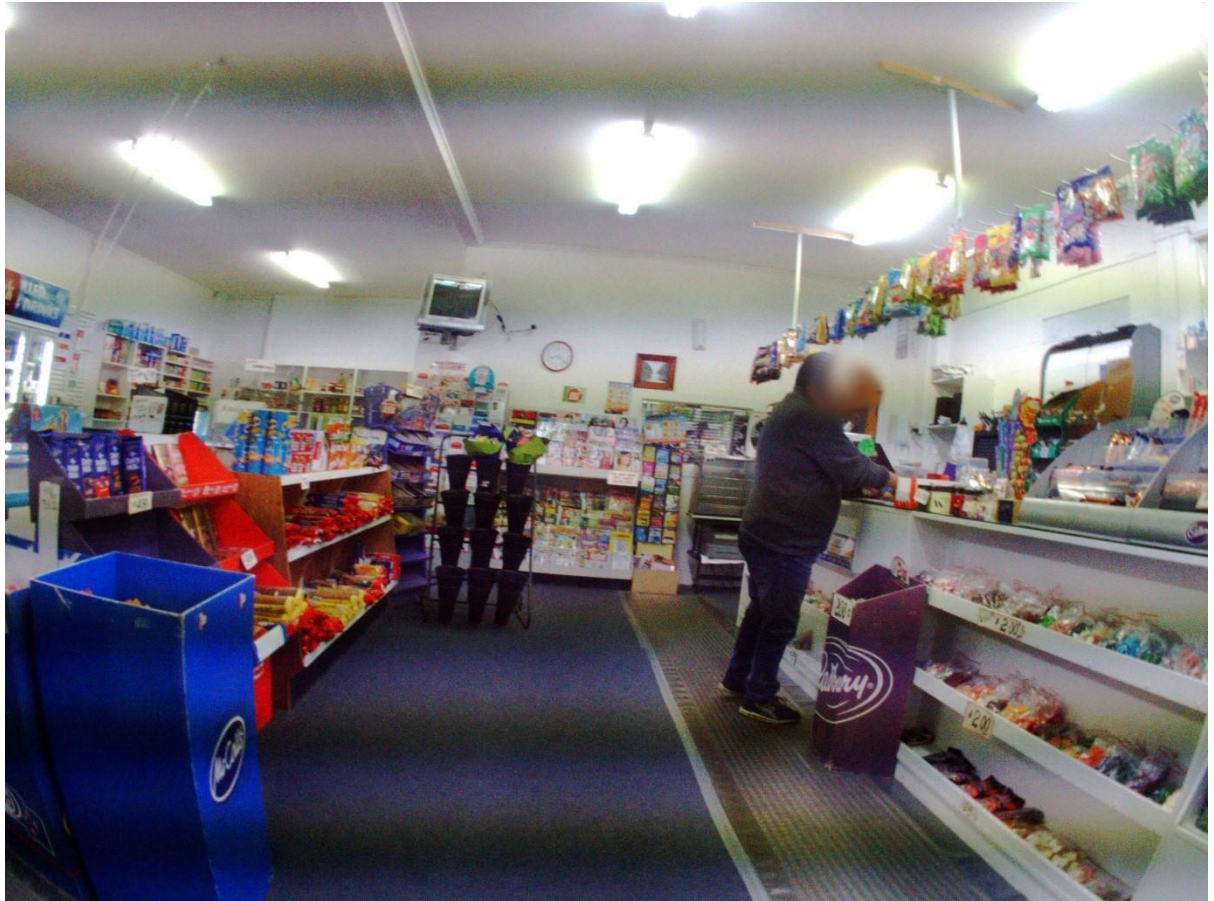
Participant	Image	Convenience Store	Entered
nnnnnnn	nnnnnnn	1	1

Vending Machines

Vending machines will be classified based on the food/drinks for sale in the vending machine. If over 75% of what is displayed is in the non-core category than the vending machine is classified as BMI unhealthy.

Participant	Image	Vending Machine	BMI Unhealthy
nnnnnnn	nnnnnnn	1	1

Other category

This photo is an example of an outlet that can be coded in the 'other' category for food availability. The categorization of the outlet as BMI healthy/intermediate or unhealthy will be based on the proportion of core/non core items displayed. In this instance this

photo is categorised as BMI unhealthy as only non-core food items are available.

Participant	Image	Other	BMI Unhealthy
nnnnnnn	Nnnnnnn	1	1

Food Purchase: Series of Images

The following series of images can be classified as one food purchase. The images clearly show the outside of a convenience store, entry in the convenience store, presence at the counter and then finally consumption. Although it is not always necessary to see if a food/drink has been consumed to code for purchase as this may not be recorded by the photos.

Photo 3 in this series would be annotated as:

Participant	Image	Purchase	What
nnnnnnn	Nnnnnnn	1	Sugary Drink

NB: Many of the purchases will have already been coded as part of the convenience store analysis.

Transport

It is also important to record the mode of travel taken by a child on their journey to and from school as this impacts food availability and purchase. Each journey should only have their transport mode recorded once. The exception to this is if a child used multiple travel modes, e.g. (walks to bus stop, and then buses to school). In this case each new travel mode will be recorded for the first image showing the new mode of travel. The following codes will be recorded for mode of travel. This is in order to align with the travel annotation analysis by Marie Russell so that the data can be combined following coding.

Definitions

Code	Definition
Car	Inside a car, van or truck (once a child is seated inside car until child is outside car
Bus	Inside a bus (once child is inside bus until child is outside bus)
Train	Inside a train (once child is inside train until child is outside train)

Walk	Walking , running or jogging
Bicycle	Child on bicycle
Scooter	Child on scooter or skateboard
Station/Shelter	Child at bus/train station or bus shelter

For the above series of images Photo 1 would be annotated as:

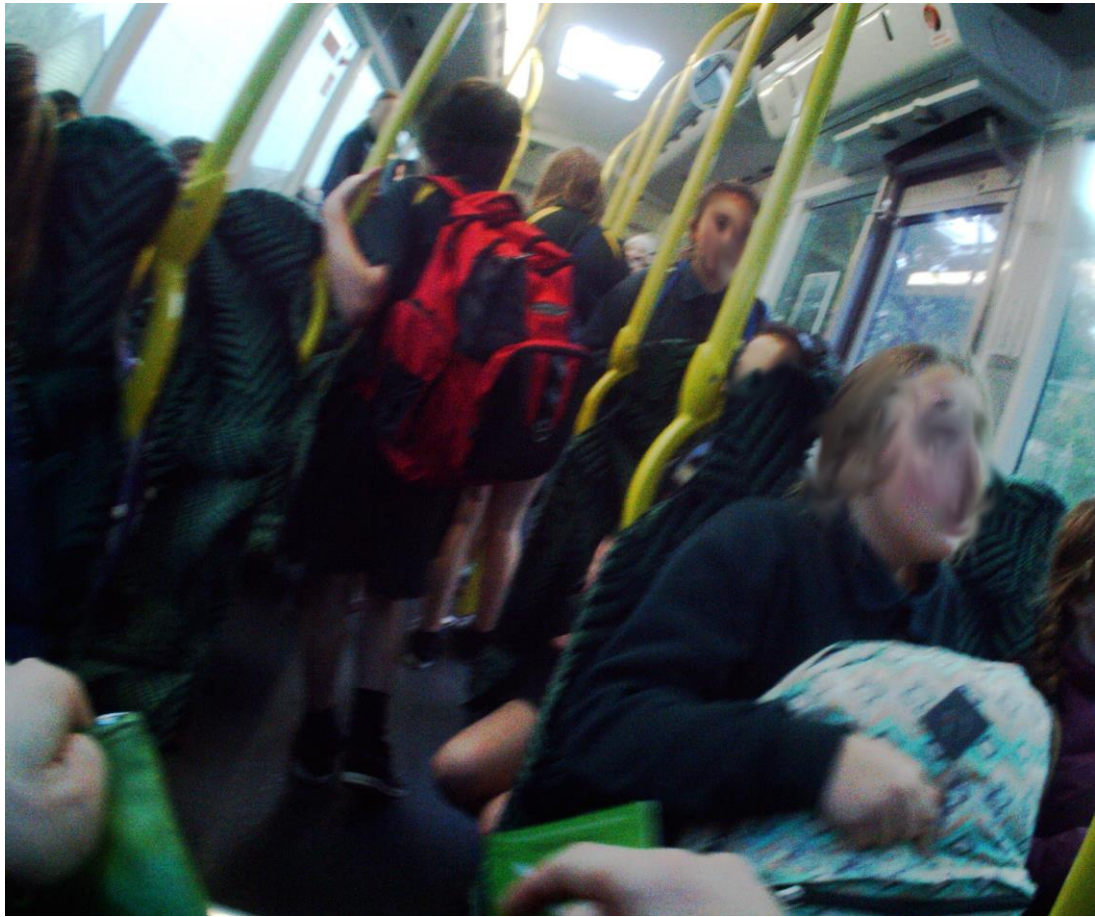| Participant	Image	Walk
Nnnnnnn	Nnnnnnn	1

Transport Images

Further examples of transport images and how they should be coded are pictured below. It is important that each transport journey is only coded once.

Participant	Image	Transport Active
nnnnnnn	Nnnnnnn	Scooter

Participant	Image	Car
nnnnnnn	Nnnnnnn	1

Participant	Image	Bus
nnnnnnn	Nnnnnnn	1

Definitions

Food outlet	Definition
Fruit and Vegetable grocer	A food outlet primarily selling fresh fruit and vegetables.
Ice-Cream shops	Outlet where main item for sale is either ice-cream or gelato
Large supermarket	Large grocery outlets with 6 or more cash registers. Sells fresh fruit and vegetables. Has long opening hours and a large variety of items e.g Pak n Save, Countdown, New World (Thorton and Kavanagh, 2012, Ferguson 2014)
Natural food store	All healthy food stores, natural food stores and specialty food stores. Natural food stores specialize in gourmet and health products (Ferguson 2014)
Fresh food market	Characterised by being outdoor primarily selling fresh fruit and vegetables and other perishable food items. May only be open a few days a week (Thorton & Kavanagh 2012/ KidsCam manual)
Juice Bar	Stalls or kiosks that offer freshly made juice made from fresh fruit (Ferguson, 2014) Tank juice will be classified as a Juice Bar as Juice is in the title even though this also offers salad.
Salad Bar	Any outlet where main item for sale is salad. (Ferguson, 2014)
Sushi Shop	Any sushi outlet that offers sushi that can be taken away for consumption. If a sushi restaurant only offers a dine-in service, they are excluded from this category as not considered convenient food (Ferguson, 2014)
Sandwich Shop	This category covers all shops where freshly made sandwiches are the main product for sale. This includes major retail outlets like Subway and Pita Pit and also includes small independent sandwich shops. If pre-made sandwiches are offered as well as other items the outlet is either classified as bakery or café.
Medium size supermarket	Medium supermarkets are classified as grocery stores with between three and five cash registers. They tend to offer both high and low energy foods, but options are more limited compared to a large supermarket. Examples include Four Square and Fresh Choice. (Ferguson, 2014)
Fast Food Outlet	Includes all major fast food franchised restaurants e.g McDonalds, KFC, Burger King, Pizza Hutt, Dominos; Hell Pizza and smaller takeaway outlets such as roast chicken, Asian/Indian Takeaways, fish and chips (Thorton and Kavanagh, 2012 and KidsCam Manual) although Subway and Pita Pit are classified as sandwich outlet which differs to KidsCam.
Bakery	Independent store selling fresh baked goods and/or pies e.g Jack's Bakery, Baker's Delight (Kids'Cam Manual). If an outlet classifies itself as a café rather than a Bakery they are excluded from this category (Ferguson, 2014)
Sweet Shop	Store mainly selling confectionary
Petrol Station	An establishment selling petrol and food including Z, Caltex, Mobil and BP (Kids'Cam Manual)
Vending Machine	Electronic machine used to dispense food or drink after money has been put into it. (Kids'Cam Manual)
Mobile Food Vendor	Mobile food vendor means a food stall contained on a motor vehicle or that is designed to be moved by a motor vehicle (e.g. a food stall in caravan or on a trailer). Includes food truck selling food such as ice cream, fast food typically at a market, sports or cultural event. (Kids'Cam Manual)
Café	A shop selling coffee and other hot and cold drinks, with cabinet food such as muffins, brownies and slices. Food can be eaten on premises or to takeaway
Other	Outlet selling food not categorized previously

Category	Definition
Core	Milk and Milk products: plain milk; cheese; yoghurt; milk alternatives – soy, rice, almond; excludes milk products <10g/100g sugar Water: Plain Breads and Cereals: all breads and cereals, rice, pasta, noodles, crackers, rice crackers, flat breads, crumpets, instant noodles. Excluding breakfast cereals categorized as non-core > 15g sugar per 100g Fruit and veg: includes dried fruit, canned, fresh and frozen Meat and alternatives: meat/eggs/nuts – fresh meat, nut products such as peanut butter, legumes fish Mixed meals: sandwiches, sushi (KidsCam Manual)
Non Core	Confectionary: Chocolate and confectionary, chocolate coated products Cookies, cakes and pastries: Cakes, muffins, sweet biscuits, sweet and savoury pies, sweet and savoury pastries, slices, scones, sausages rolls Cereal (unhealthy): Cereals with >15g/100g total sugars Diet drinks: Artificially sweetened beverages e,g Diet Coke, Pespi Max, V sugar-free, PoweAde Zero Fast Food: E.g Burger,Hot Chips, Fried Fish, Fried Chicken, Pizza Ice Cream: Ice cream and iced confectionary Milk product (unhealthy): Dairy food and yoghurt >10g/100g total sugars, custard Other: Non-specified –frozen potato products, dips Processed meats: Salami, Sausages, beef jerky and dried meats, bacon, ham, delicatessen meats Snack foods: Muesli Bars, potato chips, extruded shancks, shnack bars, fruit straps, fruit squeezies Sugary drinks and juices: Includes carbonated beverages and soft drinks including Coke Life;sports drinks; energy drinks; flavoured milks (chocolate milk), fruit drinks(e2, Ribena); powered drinks (Milo, Raro); cordial; fruit juices; iced tea; breakfast drinks (Up & Go); flavoured waters
Other	BMI Healthy >75% of food/drink items for sale in core categories
Other	BMI Intermediate 50% split between core/non core items available for sale
Other	BMI Unhealthy >75% of food/drink items for sale in non core category – Need to check these definitions out with Ferguson et al…