Training for Use of the BRAT-DO

Determinants of Physical Activity in Parks
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Objectives of Direct Observation (DO) Instrument

- Objectively measure the physical characteristics of parks that may be associated with physical activity
- Integrate DO data into a comprehensive Geographic Information System (GIS) with data from other collection methods
History of DO Development

- 3 rounds of testing completed
  - Inter-observer reliability
  - Validity (in comparison to a Gold Standard)
- 4th round of testing in March 05
  - Time-dependent reliability (aka intra-observer reliability)
  - Validity (Gold Standard)
  - New shade protocol
  - More reliance on GIS mapping
Conceptual Model

Outcomes
Benefit of Parks and Park Usage

Behavior
Park Use

Antecedents
Correlates of Park Use

Physical Health Benefits
Psychological Health Benefits
Social Benefits
Economic Benefits
Environmental Benefits

Physical Activity Within Park
Park Visitation

User Characteristics
Park Characteristics

Required Supplies for Observers

- Data collection forms
- Maps of parks
- Pens (pencils will NOT work on scannable forms)
- Ruler, tape measure
- ID and letter of authorization
- Cell phone
- Comfortable walking shoes
- Water and sun protection
Dermatologists recommend:

- SPF 15 or higher (SPF 30 or higher for those with fair skin or history of skin cancer)
- The higher the better even though the added protection is small

“Complete” sunscreen blocks UVA radiation as well. Look for:

- Titanium dioxide
- Zinc oxide
- Mexoryl (not yet FDA approved)
- Tinosorbs (not yet FDA approved)
- Neutrogena “Ultra Sheer” (SPF 55) (has ingredient similar to Mexoryl)

*New York Times, 6/6/06
Sun Protection (cont)

- Apply 15-30 minutes before going out
- Reapply every 2 hours
- Use enough (1 oz, amount in a shot glass)
- Dark-colored clothing
- Sun Precautions (Solumbra) clothing line
- SunGuard (product to wash clothes in, lasts ~20 washings)
- Sunglasses
- Large-brimmed hat
Required Supplies: Data Collection Forms

- Overall Administrative Form
- PHA Form
- Overall Park Form
- Target Area (TA) Forms
  - 1 for each TA
- Street & Activity Area Forms
  - 1 per park
  - several per park
  - varies per TA
Target Areas

- A way to geographically divide large parks to facilitate observation
- All the area in a park must be contained within one or several Target Areas
- Small parks may only have 1 Target Area
- Only 1 Activity Area per Target Area
- No real analytical meaning
  - Data from target areas will be summed to get data for whole park and activity areas
Example of Data Collection Forms for A Park

Administrative PHA
Overall Park Form

Target Area Form

Target Area Form

Target Area Form

Activity Area/Street Form

Activity Area/Street Form
Overall Park Form

Target Area Form

Activity Area/Street Form

Possible Forms:
- Street
- Court
- Green Space
- Path
- Playground
- Sports Field
- Swimming Pool

Mark time it took you to complete each group of TA & AA forms
Required Supplies: Maps

Laurence Square

General Playground Features:
- Trash Can
- Drinking fountain
- Lights
- Park access
- Benches
- Sidewalks
- Basketball court light
- Bike rack
- Covered bus stop
- Uncovered bus stop
- Library foot lights
- Library book drop
- Portable trashcans
- Stop sign
- Telephone
- Traffic light
- Fence

90 Feet
Review of Direct Observation Tool and Procedure

General Guidelines

- Keep the “big picture” (conceptual framework) in mind when responding
- Avoid double-counting features
- Try to get an overall impression of an area or group of features
- The more the functionality of a feature is limited, the more this should be reflected in its score
- Use the BRAT-DO Reference Manual as a reference in the field
Overall Park
Overall Park Form

☐ Questions regarding the park as a whole

☐ May be easier to complete AFTER other forms have been done; however, you may note the presence of signs or specialty areas as you come upon them.
Can the entire park be locked?

- Mark “no” if the park is clearly not lockable (i.e. if there is no fence or gate)
- An actual working lock is not necessary
- We want to know whether access COULD be restricted.
- Applies to Target Areas and Activity Areas as well
- Example of lockable park or lockable Target Area
Signs, signs, everywhere...
Target Area
**TA Instructions**

- Must record start & stop times! (Count the time it takes you to do the TA form AND its associated Activity Area forms.)
- Before starting, walk the entire Target Area once without recording anything.
- Walk it a second time to complete the observation and fill out the form. Look everywhere and assess ALL components of the TA.
- If you are not able to get inside an area, do the observation as best you can by walking around the outside. Mark “no” to question “Able to access TA?”
Condition of Landscaping

- Base on type of landscaping
- May consider:
  - length of grass
  - drainage
  - holes
  - ant hills
  - etc.
Litter and Trash

☐ Litter
  ■ Small trash
  ■ Not in a trash can
  ■ Can be picked up by an individual
  ■ Rate without looking in trash cans

☐ Trash
  ■ Large items
  ■ Takes an organized effort to dispose of it
  ■ Rate without looking in trash cans
Examples of Litter and Trash
Risky Litter

- Anything that indicates risky behavior took place, EXCEPT cigarette butts (which are counted as “litter”)
  - alcohol cans/bottles
  - condoms/condom wrappers
  - needles/syringes
  - small Ziploc bags
- May be in a trash can or not
Risky Trash
Trash Cans

“Overflowing” trash can

Trash can is full but NOT overflowing
Graffiti

Any unauthorized writing or drawing on a public surface.
Benches

Do not count benches that are part of picnic tables.

Decide whether bench belongs to TA or overlapping Activity Area
Bench Condition

Bench condition: Deduct points for chipped paint, warped wood, missing pieces
Bike Racks

Functionality is defined as observer being willing to lock his/her own bike to the rack.
Shelters

Notice what is under the shelters.
Restrooms

☐ Can include port-o-lets

☐ Gender-labeled means that the outer door to the restroom is marked “Men” or “Women”

☐ If a restroom says “Men/Women” (or similar) consider it gender-labeled

☐ In order for a restroom to be “unlocked” you must be able to get inside

☐ Only go in your gender’s restroom!
Restrooms – Gender-Labeling
Restrooms

☐ Functionality
  ■ Do the toilets flush?
  ■ Do the sinks work?

☐ Condition
  ■ Is anything broken?
  ■ Is anything missing?
  ■ Is anything worn away or chipped?
Restrooms – Condition & Cleanliness
Concession Stand

☐ Any area within the TA that sells food or drink or rents equipment

☐ Look for any evidence (such as signs) that this activity occurs.
Concession Stand
Drinking Fountains

Water coming out in adequate stream for drinking
Picnic Tables

- Look at all the picnic tables in the TA and come up with an overall score.

- Cleanliness
  - Look for food crumbs, stickiness, bugs, or other non-trash/unclean items
  - Bear in mind that the tables are intended for outdoor use. They do not need to be in pristine condition to score a “5”
  - Trash on the picnic tables should be counted under “litter”

- Condition
  - Deduct more points if functionality is compromised
Various Conditions of Picnic Tables
Water Features

- A natural large body of water that borders the TA and is in prominent view may be included here
- Ponds, lagoons, lakes, rivers, streams, creeks, falls, decorative fountains
Water Features

Pond/Lagoon with a fountain (1)

Pond/Lagoon without a fountain (1)
Water Features

Built fountain (6)
Art and Monuments

- Any sculptures, decorative items, flags/flagpoles
- NOT decorative fountains (counted under Water Features)
Art and Monuments
Art and Monuments
Parking Area

☐ Any area set off for parking of vehicles

☐ Does not need to have painted lines or cement surface

☐ “Lighting source for parking area” must specifically illuminate the parking lot.
Park Staff

- “Uniform” can be interpreted liberally, e.g. badge, cap, t-shirt, etc.
Park Staff
Activity Areas

1. Street (not technically an AA, but has own form)
2. Court
3. Green Space
4. Path
5. Playground
6. Sports Field
7. Swimming Pool
Street
Street

- A road that carries public vehicular traffic
- Each street requires a separate Street form
- “Borders the park”: immediately touching the park edge, must be crossed before entering park
- “Crosses the park”: regular city street that carries traffic that happens to cut across the park
- “Within the park”: carries only park traffic
Street

☐ # of lanes:
- lane only goes in 1 direction
- count lanes in both directions
- lanes not always indicated with painted lines
- check street signs and actual traffic
- do not include turning lanes or medians (neutral grounds)

Example of a median or “neutral ground”
Streets – One Lane

Use presence of moving traffic to help you decide # of lanes

Do not count parked cars as a lane
Street – 2 lanes

Note sign indicating two-way traffic

Two-way street, no painted lines
Streets – Neutral Ground/Median

4 lanes, 2 on each side of neutral ground (2 lanes not in photo)

Neutral ground may be grass or cement

6 lanes, 3 on each side of neutral ground (3 lanes not in photo)
Street – 8 Lanes

Do count streetcar lane. Don’t count turning lane.
Street – Traffic Signals

Example of a “Flashing Light” (2)

Example of a “Crosswalk” (1)
Street – Traffic Signals

Example of a “Stop Light” (4)

Example of a “Stop Sign” (3)
Street - Sidewalks

Both sidewalks in relatively good condition. No trip hazards or overgrowth.
Street - Sidewalks

Deduct points for uneven surface, but give points for smooth surface given presence of tree roots.

Deduct points for sidewalk being overgrown.
Court
Court Structures

“Tennis Court Nets” (1) and “Tennis Court Standards” (2)
Court Structures

“Tennis Practice Wall” (3)
Court Structures

“Basketball Backboard” (4) and “Basketball Hoop” (5)
“Volleyball Net” (6) and “Volleyball Standards” (7)
“Seating” (8). Note that plain benches should NOT be counted as seating. Benches are assessed in the Target Area form.
Intended Use of Court

Tennis Court

Basketball Court

Volleyball Court
Intended Use of Court

“Handball Court” (4)
How many games can be played?

☐ Basketball, tennis & volleyball

■ 1 net = 1 game
Court Surface Condition

Deduct points for drainage

Deduct points for cracks

Deduct points for scuff marks
Court – Painted Markings

Deduct points for faded lines

Give points for lines being clearly visible
Court – Broken/Missing Structures

Hoop missing. Deduct more points for lack of usability.
Light Source

- Typical lights for courts or fields
Green Space
Examples of Green Space

- Free form
- May be any shape or size
- No obvious intended organized sports use
- May have trees
- Both examples have “Mostly Grass” (1) surfaces
Condition of Green Space Surface

- Consider surface upkeep such as:
  - length of grass
  - drainage
Path
Measure the width of the Path

Use a measuring tape to measure width.
Surface of Path

- Examples of “Smooth” surfaces (1)
- Note that a running track is a type of path
Surface of Path

“Dirt” surface (3)

“Particulate” surface (2)
Path divided for different uses

Look for painted markings on the path or signs.
Path intersecting with traffic

VEHICULAR TRAFFIC

PATH

14. 8. 2004
Playground
Type of Playground Equipment

- Swing Sets (1)
Type of Playground Equipment

☐ “Slides” (2)

☐ Note that they can be either:
  ■ free-standing
  ■ attached to another play apparatus (circle “2” and “3”)
Type of Playground Equipment

- “Climbing Apparatus” (3)
Type of Playground Equipment

“Merry-Go-Rounds” (4) and “See-Saws” (5)
Type of Playground Equipment

“Spring Rockers” (6)
Type of Playground Equipment

“Marked Blacktop Games” (7)
Type of Playground Surfacing

Assess only the surface that is directly under the play equipment

“Loose Fill” (3)
Type of Playground Surfacing

“Rubber Tiles” (4)  “Unitary Synthetic Surface” (4)

Note that both these surfaces feel spongy and have some “give” when you stand on them.
Surface Depth

Insert a ruler into an average-looking spot and measure depth.
Surface Condition

☐ Look for

- consistent depth
- wear and tear
- presence of roots, rocks, other environmental hazards
Deterioration of Playground Equipment

Deduct points for corrosion. Also look for things like chipped paint, rusted pieces, exposed hard surfaces.
Broken/Missing Play Equipment

Deduct points for missing swing. Also look for things such as missing or broken play components, handholds, guardrails, swing seats, benches, etc.
Measuring height of play equipment

Check the highest point on which a child could stand, and use tape measure. If height is exactly 6 feet, mark “No” (0).
Sports Field
Condition of Green Space Surface

- Consider surface upkeep such as:
  - length of grass
  - drainage
Sports Field Structures

“Football Goal Posts” (1)  “Soccer Goal Posts” (2)  (net not required)

Note that goal posts at each end of the field are required (if one is missing, assess this under broken/missing equipment).
“Fence Around Home Plate” (3)

“Dugouts” (4) and “Seating” (5)
Sports Field Structures

“Batting Cage” (6)  “Scoreboard” (7)
Intended Use of Sports Field

☐ Answer as best you can
☐ Use structures present as clues
☐ If more than one use, mark “Multi-Purpose” (4)
☐ If you can’t tell, mark “Cannot Tell” (5)
Sports Field Condition

☐ Walk the field

☐ Consider:
- eveness of surface
- length of grass
- bare patches
- holes, ditches
- roots, large rocks
- poor drainage
Sports Field Condition

- Deduct points for obstacle in field (this may be more acceptable in Green Space)
- Deduct points for length of grass, uneven surface
- Deduct points for mud/drainage
- Give points for length of grass, even surface, straight lines
Swimming Pool
DO NOT FORGET TO COMPLETE THIS SECTION

☐ Do not forget to enter the time you finished completing the TA and AA forms

☐ Please complete the table with # of forms used