BEST PRACTICES FOR

# Field Days

# Assessment Tool and Observation Protocol

UNIVERSITY OF MINNESOTA
EXTENSION

# Best Practices for Field Days Assessment Tool and Observation Protocol

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University of Minnesota Extension Publication #08653
Printed on recycled and recylable paper with at least 10% postconsumer waste material.


**www.extension.umn.edu/fielddays/**

This material is based upon work supported by the National Science Foundation under the REESE Grant No. DRL-#0635559. Any opinions, findings, and conclusions expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation or the University of Minnesota.

Editor: Kathleen Cleberg; Designer: Wendy Strombeck, one.D design

BEST PRACTICES FOR
Field Days

**Each year a huge amount of time, effort, and money is spent on educational Field Day events. The investment is made because the programs can be exciting and memorable with a direct, hands-on connection between students and the science of their environment. The problem is that these events are not always productive educational opportunities. Focused observation and assessment are needed to ensure increased effectiveness and the best possible outcomes.**

## Why use the Best Practices for Field Days Assessment Tool?

The Best Practices for Field Days (BPFD) Assessment Tool provides systematic observation methods to evaluate the success of Field Days in meeting intended educational outcomes. It uses evaluator observations to help organizers improve learning conditions and to help presenters develop their skills. Using this assessment tool will improve programs and enhance the student experience.

The BPFD Assessment Tool measures and assesses the conditions available for learning to take place in an informal science setting. It is composed of two parts:

- the Individual Assessment Tool to evaluate stations throughout the day, and
- the Holistic Assessment Tool to evaluate the day and incorporate the Individual Assessment Tool information.

By targeting coordinators and presenters who implement Field Days, the BPFD Assessment Tool can increase the impact of Field Days for thousands of fourth, fifth, and sixth grade students in Minnesota and throughout the country. Using this tool can benefit students and teachers by closing the gap between current experiences and best practices.

This assessment tool is meant to be used by observers, environmental and informal science educators, and experienced evaluators who have completed a four-to-five-hour training session for better understanding of terminology and consistency. Training sessions include practice observations with video clips and group work to build confidence and consistency in observation skills. Training is targeted toward adults with some experience in Environmental Education (EE), informal science education, and/or Field Days. Contact **http://www.extension.umn.edu/FieldDays/** to review practice videos or to find the next training session offered either online or in your area.

The BPFD Assessment Tool was developed by a team from the University of Minnesota Extension Service, Ohio State University, and the Institute for Learning Innovation (with involvement from numerous individuals and institutions across the United States). Complete team list is on page 20 of this publication.

A support publication, *Best Practices for Field Days,* provides in-depth information on Field Day development and can be found at:
**http://www.extension.umn.edu/distribution/naturalresources/DD8208.html**

*Complete Individual and Holistic Assessment Tools are at the end of this publication.*

# Observation Protocol

## Preparing for Field Day

The Field Day observation starts when the students get off the bus and ends when the students are back on the bus and leaving the site. It will be important for you to evaluate arrival, lunch, connecting activities, and departure from the site to accurately assess the student experience. On a typical Field Day, students visit six to eight stations for approximately 30 minutes each and engage in hands-on activities and discussions. You may not observe all of the stations the students attend and should instead try to complete at least four to six stations during the day while taking time to reflect and write notes about your observations.

**Observation is demanding work that requires focus and attention to detail.**

## Pre-Event Preparation Can Help

- Contact the organizer in advance to go over details for the day. Print a map and verify your directions to the site.
- Make sure you have at least six copies of the Individual Assessment Tool and one copy of the Holistic Assessment Tool so you will have enough printed materials for each station and the entire day.
- Bring a clipboard for organization and evaluation, and the 2-sided scoring rubric "cheat sheet" to use while making observations.
- Bring a watch for station start and stop times.
- Make sure you have a couple of pens or pencils. Mechanical pencils are a good choice because they can be easily erased. Field pens are also good because the ink will not run if it rains.
- You may want to bring a travel chair to increase your comfort so you can answer all the questions at each station. This will help you fill out the Holistic AssessmentTool accurately at the end of the day.
- If there is going to be more than one observer, meet before the event to review the tools, discuss how and in what order you plan to visit stations, and choose a leader to summarize the results and be the contact person for your group during the day. Multiple observers should observe the same station and not follow a single group of students for the whole day. Teams should not be larger than five observers.

## Begin On-Site Procedures

- Arrive half an hour before the program starts to meet the organizer and discuss how feedback should be provided to organizers and presenters. Ask for a copy of the map (if one is available). Find out if advance material was sent to teachers and if an evaluation will be done by students at the end of the day (or sent to them later).
- Introduce yourself to the presenters.
- Begin filling out the Holistic Assessment Tool (demographics and checklist items). If necessary, ask for additional information to complete a section.
- If you are observing the Field Day alone, decide which stations you will observe to guarantee a range of student groups.
- Individual Assessment Tool observation begins when a station starts and ends when the students move to the next station.
- Try not to evaluate prematurely or bias yourself; keep in mind that many items can only be evaluated at the end of the experience.
- At each station you will need to do three things:

  Focus completely on observing the activity for the first few minutes.

  Make notes to help with your evaluation. Your notes from a station will remind you about specifics and ultimately support your evaluation. Notes should be descriptive, factual, and may include examples of interactions or quotes (positive or negative) that you witness during a station.

  Reserve at least the last five minutes at each station for filling out the Individual Assessment Tool.
- If the group splits into smaller groups within a station, follow one until you get a good sense of what and how they are doing and then follow another group. Note who you are observing on your observation sheet.
- Do not take part in any activity or interact with participants. Your role is to observe while being as unobtrusive as possible.

> As an observer, your job is to share those rich stories and anecdotes that capture the "spark" which some day may kindle future scientists, managers, naturalists, and outdoor enthusiasts.

# The Individual Station Assessment Tool

## Using the Tool

Review the descriptive statements in the Presentation Scoring Rubric *(p. 8)* before you start working through the instructions. The statements express a best practice for Field Day instruction. Evaluate whether the statement applies to the given experience, note if the conditions for learning were present or not present and then score each item.

### ▶ Arrows

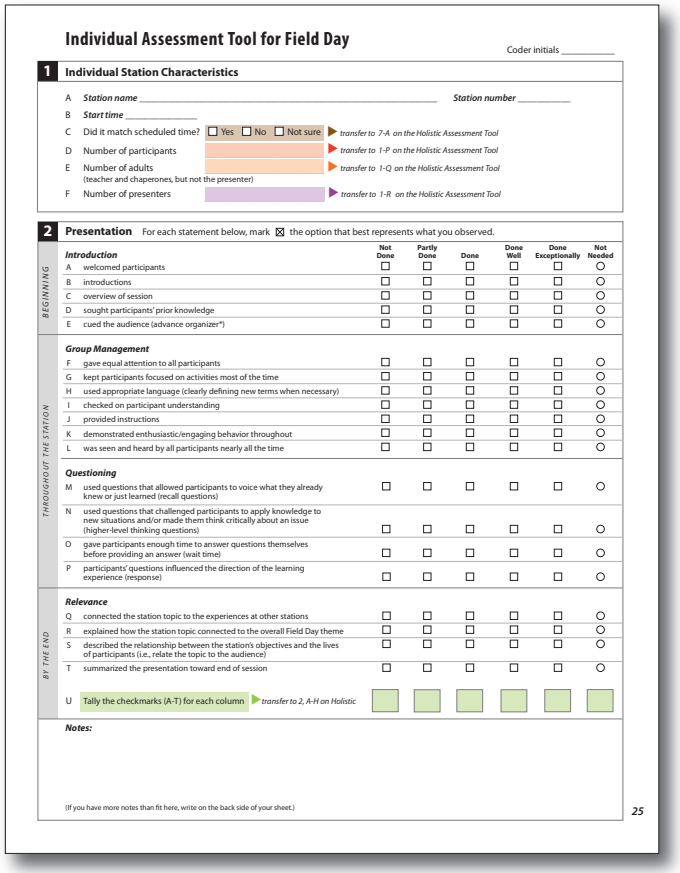
An arrow means you need to transfer the information and the color of the arrow tells you where to record it on the Holistic Assessment Tool. The instructions are also written out in case you have a black and white copy.

### Scoring

Review the Presentation Scoring Rubric described on the next pages for how to assess each item. The 5 point scale is designed with three descriptive levels of criteria. You must decide if a score falls between the rubric descriptions. The scale runs from, **Not Done, Partly Done, Done, Done Well,** to **Done Exceptionally**. Check the box that fits your observation of the criteria for each item. If an item is not needed, such as the instructor was already introduced, then check the circle marked **Not Needed.** Remember that this is an absolute scale. You should not compare between stations and presenters (and thus "grade" them on a curve), but determine in each situation the degree to which the best practice was met or exceeded.

### Staying Objective

Be careful to remain true to the individual dimension that each item on the tool is trying to measure. You may be tempted to make allowances for the time of the day, type of kids in the session or the inexperience of the presenter, but the ratings must remain stable.



**Individual Assessment Tool for Field Day**

Coder initials _____

**1 Individual Station Characteristics**

A *Station name* _____ *Station number* _____

B *Start time* _____

C Did it match scheduled time? ☐ Yes ☐ No ☐ Not sure ▶ *transfer to 7-A on the Holistic Assessment Tool*

D Number of participants ▶ *transfer to 1-P on the Holistic Assessment Tool*

E Number of adults (teacher and chaperones, but not the presenter) ▶ *transfer to 1-Q on the Holistic Assessment Tool*

F Number of presenters ▶ *transfer to 1-R on the Holistic Assessment Tool*

**2 Presentation** For each statement below, mark ☒ the option that best represents what you observed.

| | | Not Done | Partly Done | Done | Done Well | Done Exceptionally | Not Needed |
|---|---|---|---|---|---|---|---|
| BEGINNING | ***Introduction*** | | | | | | |
| A | welcomed participants | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| B | introductions | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| C | overview of session | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| D | sought participants' prior knowledge | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| E | cued the audience (advance organizer*) | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| THROUGHOUT THE STATION | ***Group Management*** | | | | | | |
| F | gave equal attention to all participants | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| G | kept participants focused on activities most of the time | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| H | used appropriate language (clearly defining new terms when necessary) | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| I | checked on participant understanding | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| J | provided instructions | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| K | demonstrated enthusiastic/engaging behavior throughout | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| L | was seen and heard by all participants nearly all the time | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | ***Questioning*** | | | | | | |
| M | used questions that allowed participants to voice what they already knew or just learned (recall questions) | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| N | used questions that challenged participants to apply knowledge to new situations and/or made them think critically about an issue (higher-level thinking questions) | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| O | gave participants enough time to answer questions themselves before providing an answer (wait time) | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| P | participants' questions influenced the direction of the learning experience (response) | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| BY THE END | ***Relevance*** | | | | | | |
| Q | connected the station topic to the experiences at other stations | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| R | explained how the station topic connected to the overall Field Day theme | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| S | described the relationship between the station's objectives and the lives of participants (i.e., relate the topic to the audience) | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| T | summarized the presentation toward end of session | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| U | Tally the checkmarks (A-T) for each column ▶ *transfer to 2, A-H on Holistic* | | | | | | |

***Notes:***

(If you have more notes than fit here, write on the back side of your sheet.)

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## Completing the Individual Assessment Tool

Here you will find background information and directions on how and when you should answer each section. In general, focus on observation and taking notes for the bulk of the station. Fill out the Individual Assessment Tool during the last five minutes unless directed to answer at another time.

### 1 Individual Station Characteristics

▶ Note color codes: ■ ■ ■ ■

If stations start on time, the Field Day has a good chance of keeping pace with the intended schedule. Stations starting and ending at different times may have problems with the schedule for the day. You can fill out the information for this section when you arrive at the station. *Note the colored sections as you will need to transfer this content to the Holistic Assessment Tool.*

**1 Individual Station Characteristics**

A ***Station name*** _____ ***Station number*** _____

B ***Start time*** _____

C Did it match scheduled time? ☐ Yes ☐ No ☐ Not sure ▶ *transfer to 8-A on the Holistic Assessment Tool*

D Number of participants ▶ *transfer to 1-P on the Holistic Assessment Tool*

E Number of adults (teacher and chaperones, but not the presenter) ▶ *transfer to 1-Q on the Holistic Assessment Tool*

F Number of presenters ▶ *transfer to 1-R on the Holistic Assessment Tool*

### 2 Presentation

▶ Note color code: ■

For each statement below, mark ☒ the option that best represents what was observed.

This section looks at how effectively the presenter conducted a station. The statements represent the best practices for Field Days and you should not expect to see all of these components at every station. Use the 5 point scoring scale below for each item from **Not Done, Partly Done, Done, Done Well,** to **Done Exceptionally**. Choose the answer that best reflects how the presenter is doing. It may fall between the 3 written descriptions in the Presentation Scoring Rubric and should be scored accordingly.

**2 Presentation** For each statement below, mark ☒ the option that best represents what you observed.

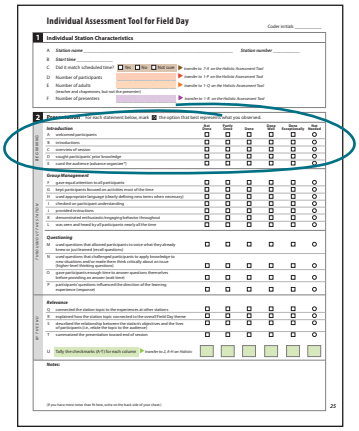
| | | Not Done | Partly Done | Done | Done Well | Done Exceptionally | Not Needed |
|---|---|---|---|---|---|---|---|
| BEGINNING | ***Introduction*** | | | | | | |
| | A welcomed participants | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | B introductions | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | C overview of session | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | D sought participants' prior knowledge | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | E cued the audience (advance organizer*) | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | ***Group Management*** | | | | | | |
| | F gave equal attention to all participants | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | G kept participants focused on activities most of the time | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | H used appropriate language (clearly defining new terms when necessary) | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | I checked on participant understanding | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |

Your answers are not a grade and do not mean that the presenter has done a poor job if an element is not in place. Station evaluations will be used to inform future presenter trainings. The station and presenter names will be removed for this feedback, and general trends across the day are the targeted information.

Scoring Rubric is available to order or online as a separate 2-sided "cheat sheet".

# Presentation Scoring Rubric

***Introduction*** *(evaluate at beginning of station)*


Individual Assessment Tool for Field Day

Coder initials _____

**1 Individual Station Characteristics**

A Station name _____ Station number _____

B Start time _____

C Did it match scheduled time? ☐ Yes ☐ No ☐ Not sure ▶ transfer to 7=A on the Holistic Assessment Tool

D Number of participants _____ ▶ transfer to 1=F on the Holistic Assessment Tool

E Number of adults (teacher and chaperones, but not the presenter) _____ ▶ transfer to 1=C on the Holistic Assessment Tool

F Number of presenters: _____ ▶ transfer to 1=B on the Holistic Assessment Tool

**2 Presentation** — FOR each statement below, mark ☒ the option that best represents what you observed.

| | | Not done | Partly done | Done well | Done exceptionally | Not sure |
|---|---|---|---|---|---|---|
| **Introduction** | | | | | | |
| A | welcomed participants | ☐ | ☐ | ☐ | ☐ | ○ |
| B | introductions | ☐ | ☐ | ☐ | ☐ | ○ |
| C | overview of session | ☐ | ☐ | ☐ | ☐ | ○ |
| D | sought participants' prior knowledge | ☐ | ☐ | ☐ | ☐ | ○ |
| E | used the audience (advance organizer*) | ☐ | ☐ | ☐ | ☐ | ○ |
| **Group Management** | | | | | | |
| F | gave equal attention to all participants | ☐ | ☐ | ☐ | ☐ | ○ |
| G | kept participants focused on activities most of the time | ☐ | ☐ | ☐ | ☐ | ○ |
| H | used appropriate language (clearly defining new terms when necessary) | ☐ | ☐ | ☐ | ☐ | ○ |
| I | checked on participant understanding | ☐ | ☐ | ☐ | ☐ | ○ |
| J | provided instructions | ☐ | ☐ | ☐ | ☐ | ○ |
| K | demonstrated enthusiastic/engaging behavior throughout | ☐ | ☐ | ☐ | ☐ | ○ |
| L | was seen and heard by all participants nearly all the time | ☐ | ☐ | ☐ | ☐ | ○ |
| **Questioning** | | | | | | |
| M | used questions that allowed participants to voice what they already knew or just learned (recall questions) | ☐ | ☐ | ☐ | ☐ | ○ |
| N | used questions that encouraged participants to apply knowledge to new situations and to make them think critically about an issue (higher-level thinking questions) | ☐ | ☐ | ☐ | ☐ | ○ |
| O | gave participants enough time to answer questions themselves before providing an answer (wait time) | ☐ | ☐ | ☐ | ☐ | ○ |
| P | let participants' questions influence/re-direction of the learning experience (responsive) | ☐ | ☐ | ☐ | ☐ | ○ |
| **Relevance** | | | | | | |
| Q | connected the station topic to the experiences at other stations | ☐ | ☐ | ☐ | ☐ | ○ |
| R | explained how the station topic connected to the overall Field Day theme | ☐ | ☐ | ☐ | ☐ | ○ |
| S | described the relationship between the station's objectives and the lives of participants (i.e., what the topic to the audience) | ☐ | ☐ | ☐ | ☐ | ○ |
| T | summarized the presentation toward end of session | ☐ | ☐ | ☐ | ☐ | ○ |
| U | Tally the checkmarks (X'S) for each column ▶ transfer to 2_A-H on Holistic | | | | | |

Notes:

(If you have more notes than fit here, write on the back side of your sheet.)

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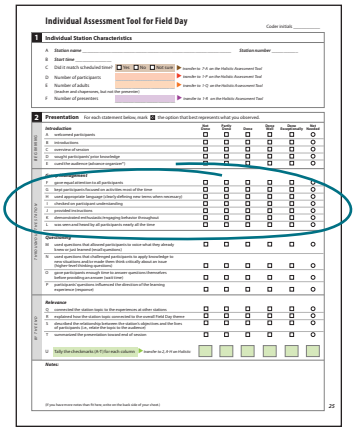
| Scoring Options ▶ | *Not Done* | | *Done* | | *Done Exceptionally* |
|---|---|---|---|---|---|
| **A Welcome** | Waits for the introduction to engage with students; is busy doing things rather than welcoming; does not welcome participants | *Partly Done* | Organizes and greets students at the beginning and invites them into the session | *Done Well* | Engages with participants as they arrive and creates a welcoming environment |
| **B Introductions** | Misses a necessary element (name, organization, relevance, topic) or repeats unnecessarily | | Shares name, organization, and topic at the beginning of presentation | | Includes relevant individual characteristics at the beginning or reveals over the course of the intro/presentation |
| **C Overview of session** | Fails to provide any sense of what will happen | | States what will happen during the session | | Engages participants in ways that provide alternatives to revealing the structure of the session |
| **D Seeking prior participant knowledge** | Does not ask questions that reveal knowledge or does not use information from participants to adapt the program | | Asks participants revealing "do you know" type questions and builds from the information; does not assume individual knowledge equals group knowledge | | Obtains information about participants and knowledge and incorporates it throughout the program |
| **E Cueing the learner (advance organizer)** | Fails to identify objectives of the session; does not frame the session in a relevant way | | Prepares the learners mentally for the session in spoken, explicit, and discernable ways | | Creatively embeds advance organizer into activity; builds upon participants' knowledge and reactions to engage in defining their goals |

## Presentation Scoring Rubric

### *Group Management* *(evaluate throughout the station)*


Individual Assessment Tool for Field Day

Coder initials _____

**1 Individual Station Characteristics**

A Station name _____ Station number _____

B Start time _____

C Did it match scheduled time? ☐ Yes ☐ No ☐ Not sure ▶ transfer to 7-A on the Holistic Assessment Tool

D Number of participants ▶ transfer to 7-P on the Holistic Assessment Tool

E Number of adults (teacher and chaperones, but not the presenter) ▶ transfer to 7-Q on the Holistic Assessment Tool

F Number of presenters ▶ transfer to 7-R on the Holistic Assessment Tool

**2 Presentation** For each statement below, mark ☒ the option that best represents what you observed.

| | | First | Every | Some | Some | None | Not at |
|---|---|---|---|---|---|---|---|
| | | | | | | Usually | |
| FEEDBACK | **Introduction** | | | | | | |
| | A welcomed participants | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | B introductions | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | C overview of session | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | D sought participants' prior knowledge | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | E used the audience (whenever important?) | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | **Delivery** | | | | | | |
| | F gave equal attention to all participants | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | G kept participants focused on activities most of the time | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | H used appropriate language (clearly defining new terms when necessary) | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | I checked on participant understanding | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | J provided instructions | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | K demonstrated enthusiastic/engaging behavior throughout | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | L was seen and heard by all participants nearly all the time | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | **Questions** | | | | | | |
| | M used questions that allowed participants to voice what they already knew or just learned (recall questions) | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | N used questions that encouraged participants to apply knowledge to new situations and to make them think critically about an issue (higher-level thinking questions) | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | O gave participants enough time to answer questions themselves before providing an answer (wait time) | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | P participants' questions influenced the direction of the learning experience (responsive) | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | **Relevance** | | | | | | |
| | Q connected the station topic to the experiences at other stations | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | R explained how the station topic connected to the overall Field Day theme | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | S described the relationship between the station's objectives and the lives of participants (i.e., relate the topic to the audience) | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | T summarized the presentation toward end of session | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | U Tally the checkmarks (X-T) for each column ▶ transfer to 2_R-H on Holistic | | | | | | |

Notes:

(If you have more notes than fit here, write on the back side of your sheet.)

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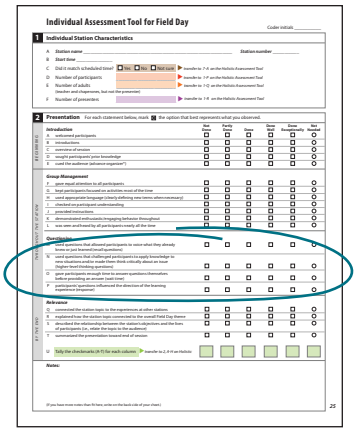
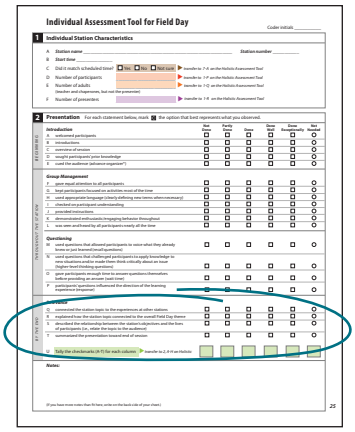
| Scoring Options ▶ | *Not Done* | | *Done* | | *Done Exceptionally* |
|---|---|---|---|---|---|
| **F Attention to participants** | Talks to a subset of the group too often; gives too much attention to some individuals, ignores others | *Partly Done* | Physically and verbally addresses all participants; recognizes individuality by comment and action; addresses individual needs without losing group; uses group management to generate attention | *Done Well* | Demonstrates ways of maintaining focus on group and continually expanding group to include all participants; uses participants to engage other participants |
| **G Maintaining focus** | Uses coercive statements or activities to engage individuals; ignores participants as they disengage | | Keeps participants involved by using questions or activity to engage them; uses the group to keep participants involved; makes adjustments to ensure engagement | | Draws participants into the session; neutralizes non-engagement; makes adjustments appear effortless |
| **H Use of language** | Does not define key terms (technical or advanced); assumes uniform knowledge of terms; uses uncommon language | | Uses common language; clearly defines uncommon terms or language; responds to participant reaction to concepts or language | | Elicits meaning from participants; allows participants to define terms |
| **I Checking participant understanding** | Moves through presentation; does not check in with participants about comprehension | | Regularly confirms comprehension; explains and makes relevant the concepts and terms | | Uses all types of evidence and adjusts program explicitly |
| **J Providing instructions** | Gives no instruction, overloads participants with details, or uses inappropriate language | | Provides the instructions simply; explains any equipment or supplies; addresses physical space and context | | Ensures comprehension; when appropriate, breaks down across activity |
| **K Presenter enthusiasm** | Interacts with a portion of the participants or at times disengages from the group | | Interacts enthusiastically | | Is fully present throughout the presentation; immerses self in the teaching situation and shares enthusiasm with all |
| **L Presenter visibility** | Not seen or heard by the entire group | | Was seen and heard, but not continuously | | Was seen and heard by participants nearly all the time |


Individual Assessment Tool for Field Day

## Presentation Scoring Rubric

### *Questioning* *(evaluate throughout station)*

| Scoring Options ▶ | *Not Done* | | *Done* | | *Done Exceptionally* |
|---|---|---|---|---|---|
| **M Recall questions** | Doesn't ask questions or asks questions that do not further learning or comprehension | *Partly Done* | Regularly uses questions that allow participants to voice what they already knew or had just learned | *Done Well* | Regularly uses a variety of question strategies and determines levels of recall knowledge |
| **N Higher level thinking questions** | Doesn't ask questions or asks questions that do not require higher level thinking; reduces higher level question to recall (right or wrong) | | Uses questions that challenge participants to apply knowledge to new situations and/or make them think critically | | Asks open questions; questions often emerge from the participants (inquiry); multiple perspectives drive the learning process |
| **O Wait time** | Doesn't allow for response time; jumps in with answer or accepts first answer given | | Regularly gives participants enough time to answer questions before giving an answer | | Doesn't rush or hold back on question/response |
| **P Response to questions** | Shuts down questioning; negates value of participant | | Allows participants to ask questions and answers within the situation/context | | Responds positively to questions; answers questions to further the process; reinforces learning outcomes |


Individual Assessment Tool for Field Day

### *Relevance* *(evaluate by the end)*

| Scoring Options ▶ | *Not Done* | | *Done* | | *Done Exceptionally* |
|---|---|---|---|---|---|
| **Q Connects to other stations** | Not done or indiscernible | *Partly Done* | Connects the station topic to the experiences in other stations | *Done Well* | Engages participants in making connections to other stations |
| **R Connects to Field Day theme** | Not done or indiscernible | | Connects the station topic to the Field Day theme | | Engages participants in making connections to Field Day theme |
| **S Relevance** | Not done or indiscernible | | Describes the relationship between the station's objectives and the lives of participants | | Engages participants in making connections to their own lives |
| **T Summary** | Not done or indiscernible | | Comprehensively summarizes the presentation toward end of session | | Engages participants in drawing conclusions and summarizing the session |

## 3 Teaching Strategies ▶Note color code: ■

Mark ☒ all items below that were clearly observed during the session.
Circle the predominant strategy.

In this section you will evaluate the teaching strategies used during the station. The four teaching strategies are discussed at length during the training. You may see more than two teaching strategies during a single station. It takes thought, preparation, time, and effort to conduct a teaching strategy. Brief, incidental occurrences are not teaching strategies. Critical to the evaluation of teaching strategies is determining "who holds the knowledge" and how it is exchanged with the participants. In lecture, the presenter holds the knowledge and shares it with the students; while in the strategy of inquiry and discovery, students are controlling what and how they learn.

**3 Teaching Strategies** Mark ☒ all items below that you clearly observed during the session – CIRCLE the predominant strategy.

| | | | |
|---|---|---|---|
| A | ***Lecture*** | Presenter delivered information to participants; including visual aids and questions & answers | ☐ |
| B | ***Demonstration*** | Presenter used demonstrations, models, and props to illustrate concepts and processes | ☐ |
| C | ***Discussion*** | Participants shared ideas, thoughts, opinions, debates, etc., with each other and presenter | ☐ |
| D | ***Guided Discovery/Inquiry*** | Participants engaged in exploration outlined by presenter; including games, role plays, simulations, structured experiments, etc. | ☐ |

***Notes:*** ▶ *transfer to 3, A-D on the Holistic Assessment Tool*
**Circle the predominant strategy at the end**

### Lecture

*Presenter delivers information to participants*

Presenter delivers information to passive, receptive participants. Lecturers may use visual aids, including objects that are passed among the participants and supplement rather than supplant the primary message given by the presenter. Participants are asked questions (usually for right answers) and ask questions of the instructor. Many stations start out as a lecture and some move into other teaching strategies. Lectures may include the presenter standing and speaking in front of a quiet, inactive group of students.

### Demonstration

*Presenter uses models and props to illustrate concepts and processes*

The instructor sets up a demonstration to illustrate important concepts or ideas. The instructor, perhaps with some assistance, provides the majority of the hands-on portion of the demonstration. For most participants it is a passive, not a hands-on, activity.

### Discussion

*Participants share ideas and opinions with others and the presenter*

Methods include involving participants in voicing their own thoughts, ideas, opinions, and beliefs with other participants and not just in a linear exchange with the instructor. If the instructor asks participants to turn to their neighbor or discuss a question, an idea, or situation in a small group, this interaction is a discussion. Look for situations where the majority of the participants get to speak at some point and the instructor does not speak more than the participants. Also watch for participants/groups being asked to share a summary of their discussions.

### Guided Discovery/ Inquiry

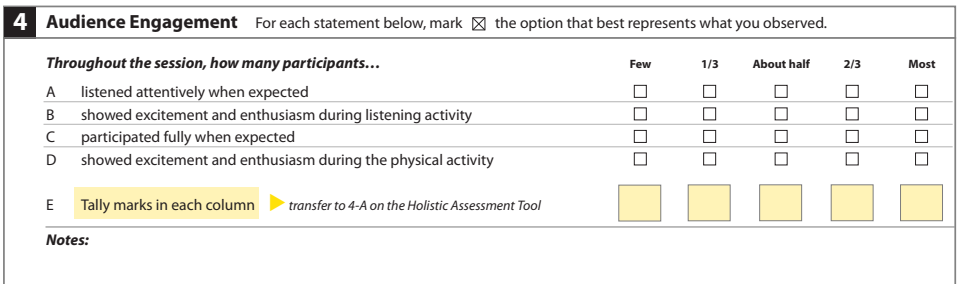
*Participants engage in exploration outlined by presenter*

Guided Discovery is an active learning approach where a presenter defines a task, participants undertake the task and explore the outcomes, and then the presenter facilitates discussion or debriefing to focus the learning toward the desired goals. Inquiry is an active learning approach where the participants determine the direction of investigation through questions, investigations, and exploration. Participants develop the lesson as they proceed. Inquiry requires participants to work independently rather than receiving direct instructions from the presenter. Presenters provide structure and a good learning environment rather than communicating or being direct vessels of knowledge.

## 4 Audience Engagement ▶Note color code:

For each statement mark ☒ the option that best represents what was observed.

This section addresses audience response and engagement during the station.
*Observe at least 3 times instead of just at the end, and average the 3 observations.*



**4 Audience Engagement** For each statement below, mark ☒ the option that best represents what you observed.

| ***Throughout the session, how many participants…*** | | **Few** | **1/3** | **About half** | **2/3** | **Most** |
|---|---|---|---|---|---|---|
| A | listened attentively when expected | ☐ | ☐ | ☐ | ☐ | ☐ |
| B | showed excitement and enthusiasm during listening activity | ☐ | ☐ | ☐ | ☐ | ☐ |
| C | participated fully when expected | ☐ | ☐ | ☐ | ☐ | ☐ |
| D | showed excitement and enthusiasm during the physical activity | ☐ | ☐ | ☐ | ☐ | ☐ |
| E | Tally marks in each column ▶ *transfer to 4-A on the Holistic Assessment Tool* | | | | | |

***Notes:***

You are observing the percentage of the audience that:

A listened attentively (held eye contact, not distracted by others, etc)

B showed excitement and enthusiasm during listening activity (smiled, raised hands, etc.)

C participated fully when expected (joined in physical activity)

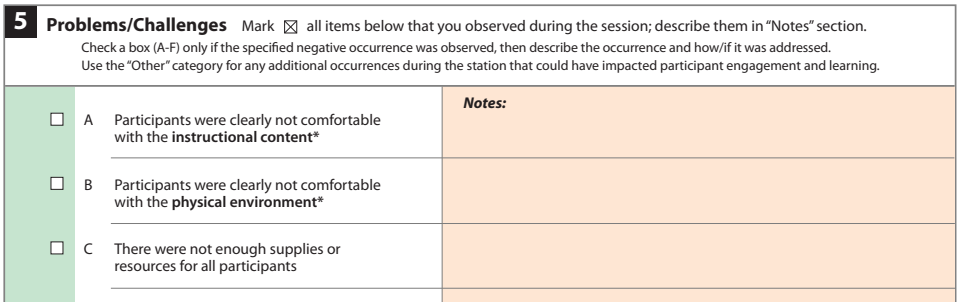
D showed excitement and enthusiasm during the physical activity (noise level may increase)

*Scoring note: A and B are listening activities; C and D are action activites. Items B and D (excitement and enthusiasm) may be difficult to score, and the observer should be sensitive to different culture perspectives and teen "too cool" attitudes.*

If the presentation offered no "physical activity," leave that item blank. Tally all the marks and transfer to the Holistic Assessment Tool.

## 5 Problems / Challenges ▶Note color codes:

Mark ☒ all items below that were observed during the session; describe them in "Notes" section.



**5 Problems/Challenges** Mark ☒ all items below that you observed during the session; describe them in "Notes" section.
Check a box (A-F) only if the specified negative occurrence was observed, then describe the occurrence and how/if it was addressed.
Use the "Other" category for any additional occurrences during the station that could have impacted participant engagement and learning.

| | | | ***Notes:*** |
|---|---|---|---|
| ☐ | A | Participants were clearly not comfortable with the **instructional content*** | |
| ☐ | B | Participants were clearly not comfortable with the **physical environment*** | |
| ☐ | C | There were not enough supplies or resources for all participants | |

You are observing behaviors where:

A participants were clearly not comfortable with the **instructional** environment

B participants were not comfortable with the **physical** environment

C there were not enough supplies or resources for all of the participants

D crowded conditions interfered with experience

E person(s) with special needs was not participating

F adults/staff inhibited participants' engagement (e.g., answered the questions themselves)

G other

The purpose of collecting this information is recognizing that if basic needs are not met, students may not reach high order levels of thinking.

## 6 Station Theme

▶ Note color code:

An overarching theme is important to a Field Day because it reiterates for the participants the focus of the day (i.e., the most important aspect to take home at the end of the day) and helps organizers and presenters focus their content. If a theme is not stated specifically, interpret what you think the presenter would tell you the theme was for the station. Be brief and concise, but feel free to use descriptive language.

*Examples of themes: "Water quality impacts our daily life; Forest products help reduce one's carbon footprint."*

## 7 Station Scheduling

▶ Note color code:

The information for this section is important to identify issues with timing and adds to the information that you recorded in Section 1. If stations end on time, the Field Day will have a good chance of keeping up with the intended schedule. If stations start and end at a different time than they were scheduled, this may indicate problems with the schedule for the day.

Students plant trees, sample water, explore invertebrates, while getting wet and dirty...

# The Holistic Assessment Tool

The Holistic Assessment Tool compiles the Individual Assessment Tool information and provides additional statements about the quality of the overall day as a whole. Record additional comments and notes on this part of the BPFDs Assessment because this information will be given to the Field Day organizer.

### ▶ Arrows

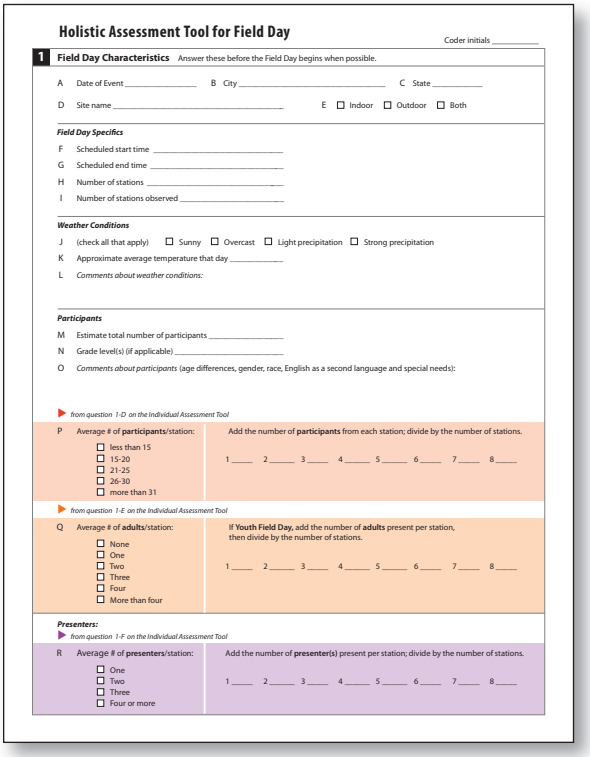
An arrow means you need to transfer information from the Individual Assessment Tool and the color of the arrow tells you where the information is located. The instructions are also written out in case you have a black and white copy.

## Preparation: Analysis and Report Writing

- If you are working as a group of observers, you may compare your evaluation with others in the group. You may change values based on a group discussion. Discuss your evaluation and overall impressions, as well as observations about teaching strategies, highlights, and successes and challenges. If you are observing alone, review your observations before finalizing your evaluation.
- Write a brief postscript commenting on how the day seemed to you. Note anything that you do not feel has been captured in another location. Organizers want to know how they can improve the educational value of Field Days. They also want to know about things that they are doing well.

## At the End of the Field Day

- If you have a group leader, return your Individual and Holistic Assessment Tools to that person. If there are inconsistencies among the observers, the group leader will note that in the report. All observers will have their names on the final report.
- File all documents (all printed material and your notes).



**Holistic Assessment Tool for Field Day**

Coder initials _____

**1 Field Day Characteristics** Answer these before the Field Day begins when possible.

A Date of Event _____ B City _____ C State _____

D Site name _____ E ☐ Indoor ☐ Outdoor ☐ Both

***Field Day Specifics***

F Scheduled start time _____

G Scheduled end time _____

H Number of stations _____

I Number of stations observed _____

***Weather Conditions***

J (check all that apply) ☐ Sunny ☐ Overcast ☐ Light precipitation ☐ Strong precipitation

K Approximate average temperature that day _____

L *Comments about weather conditions:*

***Participants***

M Estimate total number of participants _____

N Grade level(s) (if applicable) _____

O *Comments about participants* (age differences, gender, race, English as a second language and special needs):

▶ *from question 1-D on the Individual Assessment Tool*

P Average # of **participants**/station:
☐ less than 15
☐ 15-20
☐ 21-25
☐ 26-30
☐ more than 31

Add the number of **participants** from each station; divide by the number of stations.
1 ____ 2 ____ 3 ____ 4 ____ 5 ____ 6 ____ 7 ____ 8 ____

▶ *from question 1-E on the Individual Assessment Tool*

Q Average # of **adults**/station:
☐ None
☐ One
☐ Two
☐ Three
☐ Four
☐ More than four

If **Youth Field Day,** add the number of **adults** present per station, then divide by the number of stations.
1 ____ 2 ____ 3 ____ 4 ____ 5 ____ 6 ____ 7 ____ 8 ____

***Presenters:***
▶ *from question 1-F on the Individual Assessment Tool*

R Average # of **presenters**/station:
☐ One
☐ Two
☐ Three
☐ Four or more

Add the number of **presenter(s)** present per station; divide by the number of stations.
1 ____ 2 ____ 3 ____ 4 ____ 5 ____ 6 ____ 7 ____ 8 ____

## Completing the Holistic Assessment Tool

### 1 Field Day Characteristics ▶ Note color codes: ■ ■ ■

*Answer these before the Field Day begins when possible.*

Many of the statements in this section can be filled out upon your arrival to the site. Start/stop times and participant-adult ratios indicate whether the site is adequately prepared for the participants. Space and amenities must be available for all participants. The organizers' response to weather conditions can also aid or distract in the success of a Field Day.

### 2 Field Day Presentations ▶ Note color code: ■

This section is primarily a place to transfer and compile information from the Individual Station Tools (2-U). Explanation for each of these sections can be found in the Individual Tool directions.

### 3 Teaching Strategies ▶ Note color code: ■

Tally the observed and predominant strategies from each station.

**You will probably not see all of the teaching strategies observed during a Field Day.** In an ideal setting, a Field Day would offer a range of teaching strategies to appeal to different learning styles and provide opportunities where both groups (presenters and participants) control the learning. At many Field Days, the primary teaching strategy is the lecture. If this is the case, it is important feedback for the Field Day organizer. There may be ways to incorporate a range of teaching strategies to improve future educational experiences for the participants.

### 4 Audience Engagement ▶ Note color code: ■

Audience engagement data comes from 4-E on the Individual Assessment Tool. Add the check marks from each of the categories (**Few, 1/3, About half, 2/3,** or **Most**) taken from the Individual Assessment Tool and tally the results for overall student engagement. Add any comments about overall audience engagement that could benefit future events.

**4 Audience Engagement**

▶ *from question 4-E on the Individual Assessment Tools*

| | | Few participants | 1/3 of participants | About half of participants | 2/3 of participants | Most of participants |
|---|---|---|---|---|---|---|
| A | Tally numbers from individual participant engagement observations | I | III | 𝍸 II | 𝍸 𝍸 II | 𝍸 IIII |
| B | Totals | *1* | *3* | *7* | *12* | *9* |

***Comments:***

## 5 Problems / Challenges ▶ Note color codes:

*Problems observed during stations.*

This section focuses on transferred information from the Individual Assessment Tool and adds a new question about **medical emergencies**. Participant safety is critical for the success of a learning experience. It is important that the site and staff are prepared and equipped to handle anything that might happen at any time. If you observe an emergency, your feedback is essential for the Field Day organizer. Be as specific as you can with your description.

## 6 Field Day Theme ▶ Note color codes:

The theme is critical to the success of focusing learning objectives for the Field Day. If a Field Day theme is explicitly stated, the stations, connecting activities, etc., should express the subject. Participants should leave the day able to state what they learned during the day. An outstanding theme conveys action, uses descriptive detail, and can be stated in a few words or a short sentence.

In this section, you will transfer the station themes from the Individual Tools and answer questions about how well the Field Day integrated the theme of the day throughout the activities you observed.

## 7 Field Day Scheduling ▶ Note color codes:

This is where to record how well the Field Day schedule was maintained. When a Field Day stays on schedule there is a better chance that the learning objectives will be met. If participants are rushing and crowded, arriving late at stations and causing presenters to hurry or cut out parts of their activities, the educational objectives may not be clear and disorganization may be observed.

Use your judgment in evaluating what proportion of the participants or presenters were observed rushing in 7 C-D and off-schedule in 7-E. Estimate **Few or none, About half,** or **Most or all** for each of these statements. Comments in 7-F will complement the Field Day or recommend improvements in scheduling issues for future Field Days.

**7 Field Day Scheduling**

***Did stations start and end on time?***

| | | | Yes | No | Not sure |
|---|---|---|---|---|---|
| | | | ▶ *from 1-C on the Individual Assessment Tools* | | |
| A | Started on time: | *Tally observations from individual stations* | | | |
| | | *Totals* | | | |
| | | | ▶ *from 7-B on the Individual Assessment Tools* | | |
| B | Ended on time: | *Tally observations from individual stations* | | | |
| | | *Totals* | | | |

| | ***Movement and Timing*** (negative) | Few or none | About half | Most or all |
|---|---|---|---|---|
| C | **Participants** rushed between stations | ☐ | ☐ | ☐ |
| D | **Presenters** rushed or did not finish | ☐ | ☐ | ☐ |
| E | **New groups arrived before sessions were scheduled to end** | ☐ | ☐ | ☐ |
| F | ***Scheduling Notes:*** | | | |

## 8 Field Day Logistics

*Mark Yes, No, or Not Sure about whether the item was observed at the Field Day; provide comments.*

This section gives you a chance to assess components of the site that should be addressed before any participants arrive at the site. If participants' basic needs are met, the Field Day will start with a solid foundation without immediate site distractions. All statements are written to specify the best practices for Field Days. Mark **Yes** or **No** only if you can identify them for sure. You may check with the Field Day organizer at the beginning or end of the day to verify or mark **Not Sure**.

The purpose of collecting this information is recognizing that if basic needs are not met, students might not reach high order levels of thinking.

## 9 Field Day Orientation and Conclusion

All statements in this section will improve the quality of a Field Day and demonstrate best practices. Because all of these components are necessary, there is no **Not needed** option. Select **Not done, Partly done,** or **Done** based on your observations during the day.

*For this section, 9 A-B can be answered after participants have arrived on-site and before they go to attend their first station. Orientation to the site and day's activities should happen during this time as well.*

*9 C-D should be answered at the end of the day. Summary activities may occur during the final station that participants attend during the day or might occur as a final large-group activity.*

Providing orientation and conclusion recognizes that Field Days are a complete experience with a beginning, middle, and end. It creates anticipation and allows for reflection at the end of the day. It doesn't mean that you give away any elements of surprise that are part of the learning experience. It is setting the stage for the day, reducing anxiety, and reconnecting the overall theme of the experience at the end.

## 10 Way-Finding

Participants must be able to find their way around the site, locate stations, and understand the expectations of their group for the day. Some Field Days are held outdoors at nature centers or other natural environment settings (e.g., in a forest, grassland, or adjacent to a wetland), while others are held indoors in schools or local arenas. The complexity of the site will vary and way-finding strategies will be adjusted accordingly. At a Field Day, it would be uncommon for all of the strategies listed in this section to be implemented. The timing of Field Day schedules are usually quite efficient and time lost searching for a station will be time lost at that station. This section allows you to use your judgment as you address whether each way-finding component was observed on the site (**Yes** or **No**) or if it was unnecessary (**Not needed**) because of the site complexity.

**In 10-G, you are invited to describe any way-finding issues.** This data will provide important information for the Field Day organizer if there are way-finding improvements that could be used in the following years to improve the participant experience.

## 11 Overall Field Day Notes

Note any occurrences or components of the Field Day that you do not feel have been captured in another location. Field Day organizers want to know how they can improve the educational value of Field Days. They also want to know things that they are doing well. Describe anything you think will be useful for organizers and take an opportunity to tell them what you think they have done exceptionally well.

As an observer, your work is complete at this time. If you have a group leader, return your individual and holistic tools to that person. If there are inconsistencies among the observers, the report writer will record that in the report. It should be noted that the report comes from the team of observers and all observers will have their names on the final report. Again, the goal is to encourage the use of the best practices for education.

---

Where do we measure the "passion" of kids as they chase a seed carried by the wind?

## Guidelines for the Final Report

After the Field Day is complete, you will submit one report to the Field Day organizer. In an ideal situation, you may have five-six observers. Take time at the end of the day to compile all of the observers' information for the final report. This report will follow a template (available on the web). It will have headings similar to the nine sections in the Holistic Assessment Tool. The scoring sheet is available on page 34. Report writers will be certified to offer a quality product to the Field Day organizers. To become certified, report writers will attend trainings on Best Practices for Field Days, and observation coding protocol, and have completed observations on at least three Field Days. A list of certified report writers will be available at the BPFD website, **http://www.extension.umn.edu/fielddays/**

## Upshot

This project was developed to improve the outcome of Field Days; to get students outdoors, celebrating nature and using the environment as a hands-on learning laboratory. Students plant trees, sample water, explore invertebrates while getting wet and dirty. Where do we measure the "passion" of kids as they chase a seed carried by the wind? Can a systematic way of measuring capture the enthusiasm and excitement of a Field Day without getting lost in the science of evaluation? This "tool" doesn't have a check-off for "passion" yet it may prove to be one of the most important connections that young people make to the world around them. As an observer, your job is to share those rich stories and anecdotes that capture the "spark" which some day may kindle future scientists, managers, naturalists, and outdoor enthusiasts. It is important not to lose sight of our purpose, while building the framework that supports Best Practices for Field Days.

## BPFD Assessment Tool Background and Development

School Districts want to know how Field Days prepare students to meet State and National Standards in science, math, and social studies; and STEM skills and objectives. Researchers have addressed "Best Practices" for environmental/ stewardship education in extended classroom experiences (NAAEE, 1996; Carlson, 2008; Fortner, 2001; Siemer, 2004; McDonnell, 2004; Stevens and Andrews, 2006; Gottfried, 1980). Stevens and Andrews (2006) defined what constitutes "good," "better," or best" in educational practices. Best was defined as "a program or practice that has been clearly defined, refined through repeated delivery, and supported by substantial research" (Fedler, 2001, 7). Applying Best Practices to Field Days increases the likelihood that these programs will meet desired outcomes in science and environmental education.

The BPFDs Assessment Tool was developed based on a review of the literature and is grounded in informal science education theory. A team of experts and practitioners synthesized their experiences and knowledge of literature to build this observation-based assessment. This team was employed to determine which educational characteristics need to be addressed for effective Field Days. Pilot testing was used to refine the tool at Field Days during spring 2007, fall 2007, and spring 2008. Reliability and validity of the tool was established in the fall of 2008.

## Individuals and Institutions Involved in Development

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BFPD Development Team, Spring 2007

# Field Day Terms and Definitions

**ADA**

ADA stands for the American Disabilities Act of 1990. The standard is whether "removing barriers" (typically defined as bringing a condition into compliance with the ADAAG) is "readily achievable," defined as "easily accomplished without much difficulty or expense." **In terms of this evaluation tool, are students able to access all areas of the program regardless of their special needs?**

**Advance Organizer**

Presenter prepares the students (i.e., sets the stage for what the students will learn). The presenter might do this by provoking the students with a leading question such as "Can you outrun a glacier?" "Did you ever touch anything 100,000 years old?" "Would you drink this water?" "Did anyone hear a new sound on the way to our station today?" or "What does your home need for you to live in it?" You could also observe signs along the trail (Burma Shave) that sets up questions about the next learning station, music ("Rite of Spring" or "Here Comes the Sun") that connects to the station theme or even smells (garlic, bread, or mint) may provoke the students to want to learn more. At the simplest level, the presenter could list two or three things the students will take away from the station. Advance organizers not only set the stage for learning but give credibility to the speaker. He or she knows something that the students now have a need to know.

**Field Day**

Field Days are typically multi-station field trip events in which students and teachers rotate through multiple presentations on environmental topics. They can happen indoors or outdoors for audiences of ten to thousands of students. Environmental Field Days are offered by a variety of agencies, organizations, and nature centers. During a typical Field Day, students visit six to eight stations, for 15-30 minutes each, learning by engaging in hands-on activities and discussion. Field Days are often a starting point for young people to gain first-hand knowledge and experience about science as it relates to the environment. Students in grades 4-6 are the most common participants in environmental Field Days.

**Field Day Organizers**

The people responsible for organizing and coordinating the event. Often they are a representative from the Extension Service or Soil and Water Conservation Districts.

**Instructional Content**

This is the educational material presented in the station. It includes appropriate language, definition of new terms, and age-level content. Indications that participants might not be comfortable with the content can be identified by disrespectful questions, a lack of engagement, glazed-over looks, and puzzled glances among participants.

**Outcomes**

What students will take away from a Field Day experience that is connected to new skills, knowledge, attitudes, and behaviors as a result of the experience.

**Physical Environment** The space where the station takes place. For an outdoor Field Day, it will include where the participants sit (e.g., wet grass), how the station is oriented with respect to wind and sun (e.g., in the faces of the students), and if there is associated interference from park attendees or environmental noise (e.g., cars). Indications of discomfort with the physical environment may be the same as indications for instructional content. If there are problems in these areas, participants often make comments about what they are feeling and how they are reacting to components of the environment. Use these indications to guide your evaluation of problems/challenges.

**Presenters** The people who deliver presentations for students at event stations. Often Natural Resource professionals from Extension Services, Soil and Water Conservation Districts, Department of Natural Resources, Nature Center staff, and other environmental agencies or NGOs.

**Station** A presentation or activity structured around a topic or theme. For environmental Field Days, this usually means a presenter or pair of presenters structuring a 20-40-minute lecture or activity-based session around an environmental topic. Students rotate through a network of stations during a typical Field Day, usually with an hour-long lunch break.

**Supervising Adult** Chaperones, teachers, or parent volunteers who volunteer time to supervise students, deliver presentations, provide lunches, etc.

**Tally** A method used to count items in groups of five. 

**Theme** The main idea or focus statement of the Field Day. Effective Field Day presentations are planned around a few learning objectives that relate directly to the theme for the day. Participants tend to remember themes while they often have trouble remembering all of the specific details presented to them over the course of the day.

**Way-Finding** The ways that Field Day participants are oriented to the Field Day site and navigated from place to place. This may include signs, maps, verbal instructions, guides, etc.

BEST PRACTICES FOR Field Days

# Individual Assessment Tool

# Holistic Assessment Tool

# Scoring Sheet for Final Report

# Individual Assessment Tool for Field Day

Coder initials _____

## 1 Individual Station Characteristics

A ***Station name*** _____ ***Station number*** _____

B ***Start time*** _____

C Did it match scheduled time? ☐ Yes ☐ No ☐ Not sure ▶ *transfer to 7-A on the Holistic Assessment Tool*

D Number of participants _____ ▶ *transfer to 1-P on the Holistic Assessment Tool*

E Number of adults _____ ▶ *transfer to 1-Q on the Holistic Assessment Tool*
(teachers and chaperones, but not the presenters)

F Number of presenters _____ ▶ *transfer to 1-R on the Holistic Assessment Tool*

## 2 Presentation

For each statement below, mark ☒ the option that best represents what you observed.

| | | Not Done | Partly Done | Done | Done Well | Done Exceptionally | Not Needed |
|---|---|---|---|---|---|---|---|
| BEGINNING | ***Introduction*** | | | | | | |
| | A welcomed participants | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | B introductions | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | C overview of session | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | D sought participants' prior knowledge | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | E cued the audience (advance organizer*) | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| THROUGHOUT THE STATION | ***Group Management*** | | | | | | |
| | F gave equal attention to all participants | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | G kept participants focused on activities most of the time | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | H used appropriate language (clearly defining new terms when necessary) | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | I checked on participant understanding | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | J provided instructions | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | K demonstrated enthusiastic/engaging behavior throughout | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | L was seen and heard by all participants nearly all the time | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | ***Questioning*** | | | | | | |
| | M used questions that allowed participants to voice what they already knew or just learned (recall questions) | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | N used questions that challenged participants to apply knowledge to new situations and/or made them think critically about an issue (higher-level thinking questions) | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | O gave participants enough time to answer questions themselves before providing an answer (wait time) | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | P participants' questions influenced the direction of the learning experience (response) | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| BY THE END | ***Relevance*** | | | | | | |
| | Q connected the station topic to the experiences at other stations | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | R explained how the station topic connected to the overall Field Day theme | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | S described the relationship between the station's objectives and the lives of participants (i.e., relate the topic to the audience) | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | T summarized the presentation toward end of session | ☐ | ☐ | ☐ | ☐ | ☐ | ○ |
| | U Tally the checkmarks (A-T) for each column ▶ *transfer to 2, A-H on the Holistic Assessment Tool* | | | | | | |

***Notes:***

(If you have more notes than fit here, write on the back side of your sheet.)

** see pg. 22, Terms and Definitions*

Coder initials _____

## 3 Teaching Strategies

Mark ☒ all items below that you clearly observed during the session – CIRCLE the predominant strategy.

| | | | |
|---|---|---|---|
| A | ***Lecture*** | Presenter delivered information to participants; including visual aids and questions & answers | ☐ |
| B | ***Demonstration*** | Presenter used demonstrations, models, and props to illustrate concepts and processes | ☐ |
| C | ***Discussion*** | Participants shared ideas, thoughts, opinions, debates, etc., with each other and presenter | ☐ |
| D | ***Guided Discovery/Inquiry*** | Participants engaged in exploration outlined by presenter; including games, role plays, simulations, structured experiments, etc. | ☐ |

***Notes:***

▶ *transfer to 3, A-D on the Holistic Assessment Tool*

**Circle the predominant strategy at the end**

Teaching Strategies adapted from *Soil and Water Conservation District Outreach: A Handbook for Program Development*, Implementation and Evaluation. Ohio Department of Natural Resources, Division of Soil and Water Conservation, 2003. Found at **http://wateroutreach.uwex.edu/education/continuum.cfm**

## 4 Audience Engagement

For each statement below, mark ☒ the option that best represents what you observed.

| ***Throughout the session, how many participants…*** | | **Few** | **1/3** | **About half** | **2/3** | **Most** |
|---|---|---|---|---|---|---|
| A | listened attentively when expected | ☐ | ☐ | ☐ | ☐ | ☐ |
| B | showed excitement and enthusiasm during listening activity | ☐ | ☐ | ☐ | ☐ | ☐ |
| C | participated fully when expected | ☐ | ☐ | ☐ | ☐ | ☐ |
| D | showed excitement and enthusiasm during the physical activity | ☐ | ☐ | ☐ | ☐ | ☐ |
| E | Tally marks in each column ▶ *transfer to 4-A on the Holistic Assessment Tool* | | | | | |

***Notes:***

## 5 Problems/Challenges

Mark ☒ all items below that you observed during the session; describe them in "Notes" section.

Check a box (A-F) only if the specified negative occurrence was observed, then describe the occurrence and how/if it was addressed.
Use the "Other" category for any additional occurrences during the station that could have impacted participant engagement and learning.

| | | | ***Notes:*** |
|---|---|---|---|
| ☐ | A | Participants were clearly not comfortable with the **instructional content*** | |
| ☐ | B | Participants were clearly not comfortable with the **physical environment*** | |
| ☐ | C | There were not enough supplies or resources for all participants | |
| ☐ | D | Crowded conditions interfered with the experience | |
| ☐ | E | Person(s) with special needs was not participating | |
| ☐ | F | Adult/Staff inhibited participant engagement (by answering questions in inappropriate ways, preventing students from thinking or interrupting…) | |
| ☐ | G | Other: | |

▶ *transfer to 5 A-G on the Holistic Assessment Tool*

▶ *transfer to 5 A-G on the Holistic Assessment Tool*



* *see pg. 22, Terms and Definitions*

Coder initials _____

## 6 Station Theme

A Was there an apparent big idea/issue/theme this station addressed?

- ☐ Yes
- ☐ No
- ☐ Not sure

B If **YES,** what do you think is this station's central theme? ▶ *transfer to 6-A on the Holistic Assessment Tool*

## 7 Station Scheduling

A Station end time: _____

B Did the station end at the scheduled time?

☐ Yes ☐ No ☐ Not sure ▶ *transfer to 7-B on the Holistic Assessment Tool*

***Additional Notes:***

***Thank you for your time. Your work will add to the quality of this and future Field Day programs!***

UNIVERSITY OF MINNESOTA EXTENSION

**www.extension.umn.edu/fielddays/**

# Holistic Assessment Tool for Field Day

Coder initials _____

## 1 Field Day Characteristics

Answer these before the Field Day begins when possible.

A Date of Event _____ B City _____ C State _____

D Site name _____ E ☐ Indoor ☐ Outdoor ☐ Both

***Field Day Specifics***

F Scheduled start time _____

G Scheduled end time _____

H Number of stations _____

I Number of stations observed _____

***Weather Conditions***

J (check all that apply) ☐ Sunny ☐ Overcast ☐ Light precipitation ☐ Strong precipitation

K Approximate average temperature that day _____

L *Comments about weather conditions:*

***Participants***

M Estimate total number of participants _____

N Grade level(s) (if applicable) _____

O *Comments about participants* (age differences, gender, race, English as a second language and special needs):

▶ *from question 1-D on the Individual Assessment Tool*

P Average # of **participants**/station:

- ☐ less than 15
- ☐ 15-20
- ☐ 21-25
- ☐ 26-30
- ☐ 31 or more

Add the number of **participants** from each station; divide by the number of stations.

1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 7 _____ 8 _____

▶ *from question 1-E on the Individual Assessment Tool*

Q Average # of **adults**/station:

- ☐ None
- ☐ One
- ☐ Two
- ☐ Three
- ☐ Four
- ☐ More than four

If **Youth Field Day,** add the number of **adults** present per station, then divide by the number of stations.

1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 7 _____ 8 _____

***Presenters:***

▶ *from question 1-F on the Individual Assessment Tool*

R Average # of **presenters**/station:

- ☐ One
- ☐ Two
- ☐ Three
- ☐ Four or more

Add the number of **presenter(s)** present per station; divide by the number of stations.

1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 7 _____ 8 _____

Coder initials _____

## 2 Presentations (Pedagogy) Transfer tallies for each observed station and then sum up each column.

*from question 2-U on the Individual Assessment Tools*

| | *Name* | Not Done | Partly Done | Done | Done Well | Done Exceptionally | Not Needed |
|---|---|---|---|---|---|---|---|
| A | Station 1 | | | | | | |
| B | Station 2 | | | | | | |
| C | Station 3 | | | | | | |
| D | Station 4 | | | | | | |
| E | Station 5 | | | | | | |
| F | Station 6 | | | | | | |
| G | Station 7 | | | | | | |
| H | Station 8 | | | | | | |
| I | Sum of all individual station presenter observations | | | | | | |

## 3 Teaching Strategies Tally numbers from individual station teaching strategy observations

*from question 3, A-D on the Individual Assessment Tools*

| | | Observed | Predominant |
|---|---|---|---|
| A | **Lecture** | | |
| B | **Demonstration** | | |
| C | **Discussion** | | |
| D | **Guided Discovery/ Inquiry** | | |

***Comments:***

## 4 Audience Engagement

*from question 4-E on the Individual Assessment Tools*

| | | Few participants | 1/3 of participants | About half of participants | 2/3 of participants | Most of participants |
|---|---|---|---|---|---|---|
| A | Tally numbers from individual participant engagement observations | | | | | |
| B | Totals | | | | | |

***Comments:***

Coder initials _____

## 5 Problems / Challenges Problems observed during stations

| Count (▶ *from question 5, A-G on the Individual Assessment Tools*) | Types of problems | Summarize notes from all observed stations (▶ *from question 5, A-G on the Individual Assessment Tools*) |
|---|---|---|
| | A Participants were clearly not comfortable with the instructional content* | |
| | B Participants were clearly not comfortable with the physical environment* | |
| | C There were not enough supplies or resources for all participants | |
| | D Crowded conditions interfered with the experience | |
| | E Person(s) with special needs was not participating | |
| | F Adult/Staff prevented participant engagement (by answering questions in inappropriate ways, preventing students from thinking, interrupting…) | |
| | G Other: | |

### *Medical issues or emergencies*

Did you observe incidents such as **medical issues or emergencies?**

☐ No incident arose ☐ Yes, incident(s) arose *(complete box below )*

**IF YES**, describe the incident(s):

How was the incident(s) addressed?



* see pg. 22, Terms and Definitions

Coder initials _____

## 6 Field Day Theme

### *Individual Station Themes*

A List individual station themes:

▶ *from 6-B on the Individual Assessment Tools*

| | |
|---|---|
| Station 1: | Station 5: |
| Station 2: | Station 6: |
| Station 3: | Station 7: |
| Station 4: | Station 8: |

### *Overall Big Idea or Theme*

B Did you perceive an overarching "big idea" or theme for the day that tied the stations together?

- ☐ Yes ***(complete all of question C below)***
- ☐ No ***(skip to section 7)***
- ☐ Not sure ***(skip to section 7)***

C **IF YES**, what was the "big idea" or theme observed for the day that tied the stations together?

Was there a stated (written or spoken) theme for the Field Day?

- ☐ Yes ***(complete all of question D below)***
- ☐ No ***(skip to section 7)***
- ☐ Not sure ***(skip to section 7)***

D **IF YES,** *CONTINUE…*

| | | Yes | No | Not sure |
|---|---|---|---|---|
| i | Did the **overall experience** reflect the stated theme? | ☐ | ☐ | ☐ |
| ii | Did **station themes** relate to the Field Day theme? | ☐ | ☐ | ☐ |
| iii | Did site **signage** reflect the Field Day theme? | ☐ | ☐ | ☐ |
| iv | Was the Field Day **implemented** to reflect the theme? (recycle, leave no trace, walk the talk) | ☐ | ☐ | ☐ |
| v | Did **site/venue** reflect the Field Day theme? | ☐ | ☐ | ☐ |
| vi | Did **activities connecting stations** reflect the stated theme? | ☐ | ☐ | ☐ |
| vii | Did the **concluding activity** reflect the Field Day theme? | ☐ | ☐ | ☐ |

**Comments**

Coder initials _____

## 7 Field Day Scheduling

***Did stations start and end on time?***

| | | | Yes | No | Not sure |
|---|---|---|---|---|---|
| | | ▶ *from 1-C on the Individual Assessment Tools* | | | |
| A | Started on time: | *Tally observations from individual stations* | | | |
| | | *Totals* | | | |
| | | ▶ *from 7-B on the Individual Assessment Tools* | | | |
| B | Ended on time: | *Tally observations from individual stations* | | | |
| | | *Totals* | | | |

***Movement and Timing*** (negative)

| | | Few or none | About half | Most or all |
|---|---|---|---|---|
| C | **Participants** rushed between stations | ☐ | ☐ | ☐ |
| D | **Presenters** rushed or did not finish | ☐ | ☐ | ☐ |
| E | **New groups arrived before sessions were scheduled to end** | ☐ | ☐ | ☐ |
| F | ***Scheduling Notes:*** | | | |

## 8 Field Day Logistics

For each of the following, mark "Yes," "No," or "Not Sure" regarding whether the item was observed at the Field Day; provide comments.

| | | Yes | No | Not Sure | Comments optional |
|---|---|---|---|---|---|
| A | **Toilets** / bathrooms are readily available (open and clearly identified) | ☐ | ☐ | ☐ | |
| B | **First aid** facilities and resources are present to address students needs | ☐ | ☐ | ☐ | |
| C | **Shelter** for everyone is available (in case of rain, high sun…) | ☐ | ☐ | ☐ | |
| D | **Site is accessible** to students with special needs (recommended ADA standards*) | ☐ | ☐ | ☐ | |
| E | **Climate-appropriate clothing** is worn by nearly all**...** | | | | |
| | i Staff/presenters | ☐ | ☐ | ☐ | |
| | ii Adults | ☐ | ☐ | ☐ | |
| | iii Children | ☐ | ☐ | ☐ | |
| F | **Drinking water** is easily available for participants | ☐ | ☐ | ☐ | |
| G | **Eating** places are adequate for meals or snacks | ☐ | ☐ | ☐ | |
| H | **Schedule** is clearly posted | ☐ | ☐ | ☐ | |



* see pg. 22, Terms and Definitions

Coder initials _____

## 9 Field Day Orientation and Conclusion

| | ***Orientation to the Field Day*** | Not Done | Partly Done | Done |
|---|---|---|---|---|
| A | Presenter(s) oriented all participants to the **site** upon arrival or shortly after | ☐ | ☐ | ☐ |
| B | Presenter(s) oriented all participants to the day's **activities** | ☐ | ☐ | ☐ |

| | ***At the end of the Field Day*** | | | |
|---|---|---|---|---|
| C | Participants were involved in an activity that **summarized** the day | ☐ | ☐ | ☐ |
| D | Participants were given an opportunity to **share ideas** during the summary | ☐ | ☐ | ☐ |

***Notes:***

## 10 Way-finding

| | ***Were these way-finding strategies used at the Field Day?*** | Yes | No | Not Needed |
|---|---|---|---|---|
| A | Directional signs (arrows, pointers, etc.) | ☐ | ☐ | ☐ |
| B | Posted general orientation signs ("You are here") | ☐ | ☐ | ☐ |
| C | Regulatory signs (rules, stay on the trails, etc.) | ☐ | ☐ | ☐ |
| D | Station markers (#1, etc., with a name or symbol) | ☐ | ☐ | ☐ |
| E | Site map handouts | ☐ | ☐ | ☐ |
| F | Escorts between stations | ☐ | ☐ | ☐ |
| G | ***If problems resulted with way-finding, describe:*** | | | |

## 11 Overall Field Day Notes

***Thank you for your time. Your work will add to the quality of this and future Field Day programs!***



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# Scoring Sheet for BPFD Final Report

**There are a number of ways that the data can be shared from this tool.**

## Summary

If you are collecting the data and entering it on the Holistic Tool, a summary of the data from each section may be the easiest way to share the Field Day outcomes. In this case, try to look at the overall effect of the presentation data, teaching strategies and audience engagement. Make comparisons between these three areas as they relate to the logistics, scheduling, staffing, theme and way-finding. Summarize these results and make recommendation for future Field Days.

## Spreadsheet

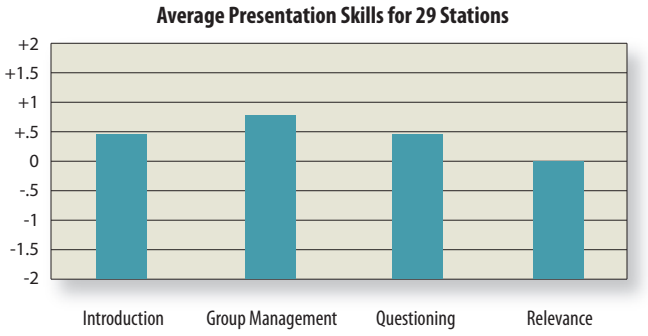
A more in-depth approach would be to enter the data from both the Individual Tool and Holistic Tool in a spreadsheet and analyze the data with charts and graphs to demonstrate successes and weaknesses in the program.

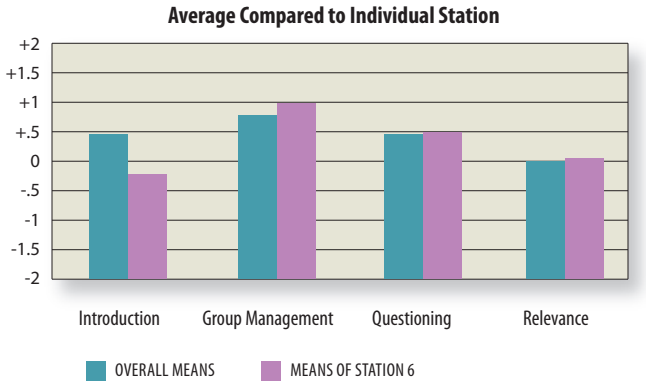
This would include setting up a spreadsheet in EXCEL or some similar program to then analyze your data. This would give you a way to look at each learning station and identify strengths and weaknesses of the program. For example, you would average the items in the presentation section into 4 areas: Introduction, group management, questioning, and relevance. You could then see how well each learning station did in all 4 areas and also see if problems exist. For example, a common occurrence is in the relevance area where learning stations are being affected by the lack of time at the end of the session. The 4 items that measure "relevance" would score low and when making comparisons to the scheduling item, may indicate where the problem exists. Again, it is a way to get more in-depth data about your Field Day.

---

## Presentation

The Presentation section is scored on a 5 point interval scale where **Not Done = -2, Partly Done = -1, Done = 0, Done Well = +1, Done Exceptionally = +2.** The purpose is to identify when the presenter met a basic standard of completion, "Done". A positive score would mean that they exceeded the standard while a negative score would mean that they were below the basic standard. Again, this would be for each of the 4 major areas represented in the presentation area (introduction, group management, questioning, and relevance). The results could then be shared as individual station (presenters) to see where the strengths and weaknesses are and compare them to the overall average of the group of learning stations (presenters) for the Field Day.

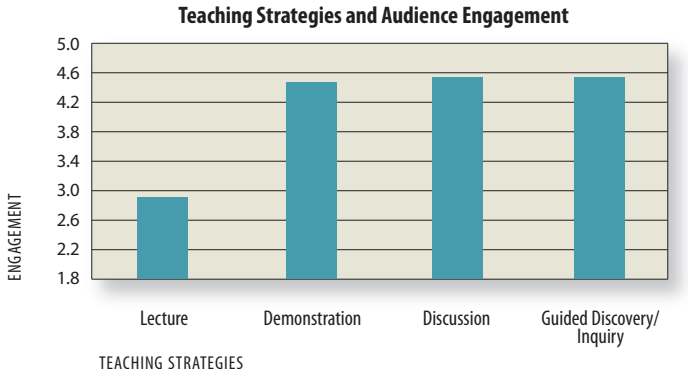



## Teaching Strategies

Identify teaching strategies used for each learning station. Important for the analysis of teaching strategies is to identify a variety of strategies represented throughout the day. This would indicate that the learning stations appeal to the different learning styles of students.

Seeing all lectures could be a problem for the more hands-on doing type student. In addition, making comparisons of teaching strategies to presentations and audience engagement can show where learning stations are doing a good job connecting to students.




## Audience Engagement

Audience engagement is a 5 point interval scale where observers record the percentage of students who are listening or active throughout the session. It is scored from **1 = Few, 2 = One Third (1/3), 3 = Half (1/2), 4 = Two Thirds (2/3), and 5 = Most or all.** Engagement has four items that measure listening, showing excitement, participation, and enthusiasm during the physical activity. The higher the overall score, the more engaged the students are during the session. The highest score is 20 which indicates that nearly all of the students were engaged 100% of the time. This score also shows a high correlation to what the students learned from the session. It is always interesting to compare the presenters' teaching strategies and presentation skills with audience engagement. Again, it may indicate what method works best for the students who are attending your Field Day.

## Problems/Challenges, Station Theme

These items can be reported in a qualitative matter and do not need to be entered into a spreadsheet. They are critical for the outcome of the program especially if you are observing low levels of engagement. These may be the issues that may need to be corrected to improve the program outcomes.

## Scheduling

Scheduling is on a 2 point nominal scale, **yes or no.** Either the program started and ended on time or it did not. Analysis will reveal if all programs are out of sync. This may add to problems with the overall timing of the Field Day.

## Holistic Tool

The Holistic Assessment Tool for Field Day is where all of the data is collected from the Individual Tools. Most of the information is qualitative and may have an affect on the day's outcome. One such piece could be the weather and the way the students and staff are clothed. It also addresses group size and ratio of adults to students. Much of this information can be reported as a case study– either it was observed or not– and if it appeared to have any influence on the day's outcome. It can be entered into a spreadsheet and comparisons can be made between group size, theme development, scheduling and logistics, and student engagement.

## Final Report

After all is complete, submit one final report to the Field Day organizers. Use the headings in the Holistic Tool to guide the final report. Start out with Field Day Characteristics, Presentations, Teaching Strategies, Audience Engagement, Problems and Challenges, Themes, Field Day Scheduling, Logistics, Orientation/Conclusion, and end with Way-finding.

*Scoring Code Sheet is available on the Field Day web site:* **http://www.extension.umn.edu/fielddays/**

University of Minnesota Extension Publication #08653

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Funded in part by:

National Science Foundation
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Minnesota Pollution Control Agency