

Conducting Systematic Behavioral Observations in Schools: Using the Behavioral Observation of Students in Schools (BOSS) App for iPhone and Android



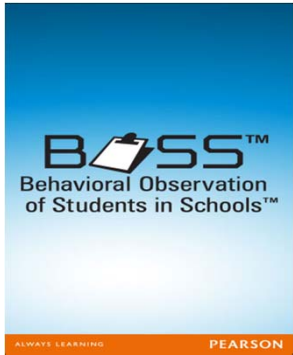
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Bethlehem, Pennsylvania





AGENDA

- Brief Overview of Systematic Observation
- In Depth Overview of the Behavioral Observation of Students in Schools (BOSS)
- Using the iPhone and Android APPS for the BOSS
- Interpretation of BOSS data



Overview of Systematic Observation





Important Reasons for Conducting Systematic Observation

- Quantitative data collection
- Systematically confirmation (or disconfirmation) of teacher subjective judgment
- Determine actual severity of the reported problem
- Provide a baseline against which to assess the success/failure of instructional intervention
- Provides feedback to stakeholders (e.g., caregivers, students, teachers, etc.) regarding the types and levels of problems students are currently having



What Can Be Learned from Systematic Observation for Academic Assessment?

- Academic engagement
- Opportunity to learn
- Active teaching/learning
- Teacher directed instruction
- Rate of accurate student response
- Demonstrate/prompt/practice



Identifying the Behaviors for Observation

- Carefully & precisely define behaviors
- For academics – what matters
 - Levels of academic engagement
 - Type of engagement
 - Type of non-engagement



Keys to Good Observations

- Accurately represents the child's behavior at the time of the observation & at other times of the day
- Situation in which behaviors was observed represent where the problems tend to occur
- Always ask teacher whether the behavior seen that day was typical for the student

How much observation is needed?

- It depends
 - Good Rule of Thumb: 3 observations
- Accurate observations require at least 10-15 minutes
- Optimally observations should be:
 - 20-30 minutes
 - Observations should be repeated over 2-3 days
 - Across different types of academic settings (e.g., ISW in reading, small-group in math, large-group in science, etc.)



Before Observing in the Classroom

- Contact the teacher to arrange the best time to observe the student
- Familiarize yourself with the daily schedule, routine, & physical layout of the classroom
- Clear view of student, but not obtrusive
- Meet briefly with teacher to learn about classroom rules or procedures that may be in effect during the observation
- Observer should minimize any interactions with students or the teacher during the observation period



Behavioral Observation of Students in Schools (BOSS)





BOSS App

- Simple and flexible
 - Recording device/Data storage system
 - Timing device
 - Cueing device
 - Data analysis system
- Some customization possible by user
- Reports (pdf and csv files) output via email

Key Features of the BOSS

- Designed for Pre-K through 12th grade
- Systematic recording of direct observations of children's behavior in the academic environment
- Observe key behaviors related to academic skill development
- Subdivide on-task behavior into active and passive categories
- Subdivide off-task behavior into motor, verbal, & passive categories
- Collect local normative comparison data (e.g., peer comparison) for accurate interpretations

SETTING UP A NEW SESSION (OBSERVATION)

- iPhone

| New Session | | Start |
|-------------|----------------|-------|
| Date | Feb 19, 2013 > | |
| Observer | None > | |
| Student | None > | |
| School | None > | |
| Grade | K > | |
| Task | None > | |
| Setting | None > | |
| Duration | 10 minutes > | |

ALWAYS LEARNING PEARSON

New Session Previous About

- Android

BOSS 4:54

New Observation

Previous Observation(s)

New Template

ALWAYS LEARNING PEARSON

13

SETTING UP A NEW SESSION (OBSERVATION)

- iPhone

The screenshot shows the iPhone BOSS app interface. At the top, there is a navigation bar with a 'Previous' button, the date 'Aug 14, 2013', and a share icon. Below this is a section titled 'Observation Details' which contains a table of fields:

| | |
|-----------------|-----------|
| Observer Name | Ed S. |
| Student Name | Sally L. |
| School | Central |
| Grade | 2 |
| Task | Reading |
| Setting | ISW:TPsnt |
| Duration | 02:00 |
| Interval Length | 15 sec |

Below the table is a section titled 'Target Stats'. At the bottom of the screen, there is an orange bar with 'ALWAYS LEARNING' on the left and 'PEARSON' on the right. A dark navigation bar at the very bottom contains three buttons: 'New Observation', 'Previous', and 'About'.

- Android

The screenshot shows the Android BOSS app interface. At the top, there is a status bar with the time '3:42' and various icons. Below this is a header bar with 'BOSS' and an information icon. The main form consists of several input fields and dropdown menus:

- 'Target' (text input)
- 'Observer' (text input)
- 'Grade:' (dropdown menu with 'K' selected)
- 'Duration:' (dropdown menu with '2:00' selected)
- 'Interval:' (dropdown menu with '0:02' selected)
- 'Setting:' (dropdown menu with 'ISW:TPsnt' selected)
- 'Subject:' (dropdown menu with 'Reading' selected)

At the bottom of the form is a large 'Start' button. Below the form is an orange bar with 'ALWAYS LEARNING' on the left and 'PEARSON' on the right. At the very bottom is an Android navigation bar with back, home, and recent apps icons.

Key Information

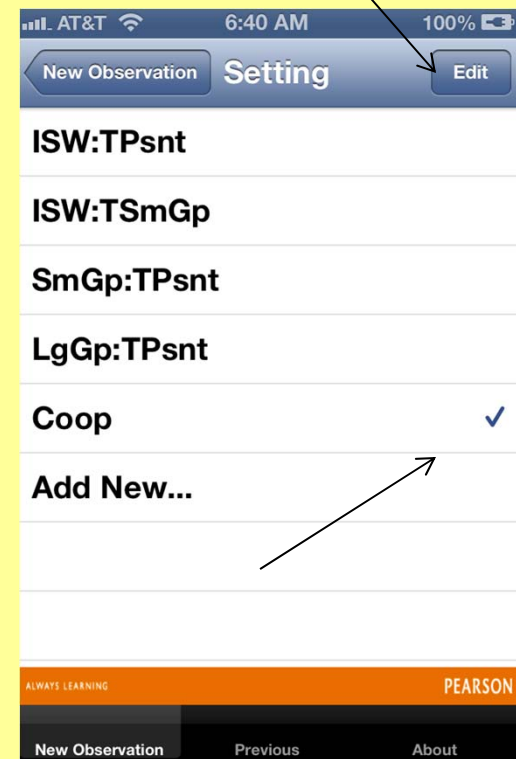
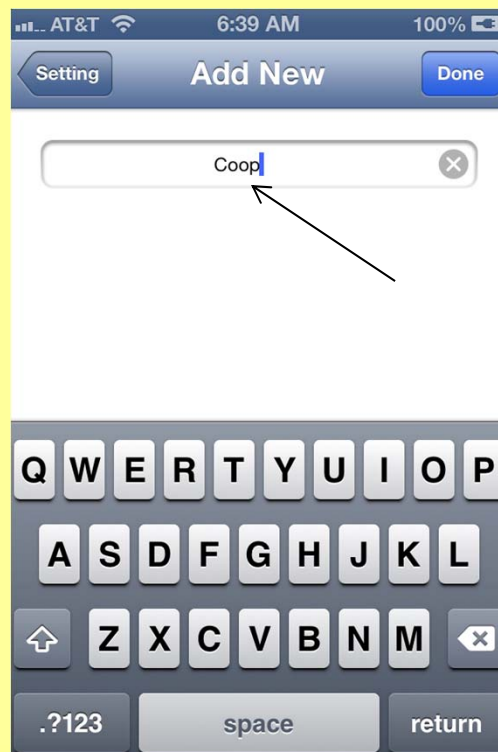
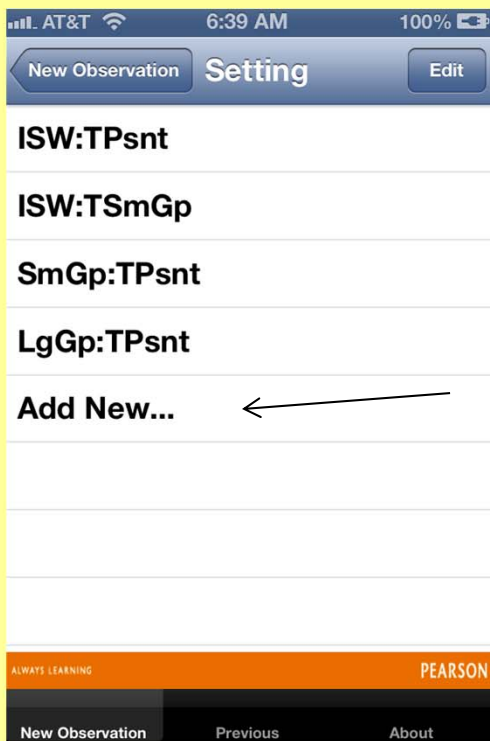
- Observer name, Student name, School, Grade
- Task (Subject)
 - Language Arts, Mathematics, Reading, Writing
 - Option to add user defined task or subject
 - Science? Social Studies?
 - Guided Reading Groups? Cooperative Groups?



Key Information - Setting

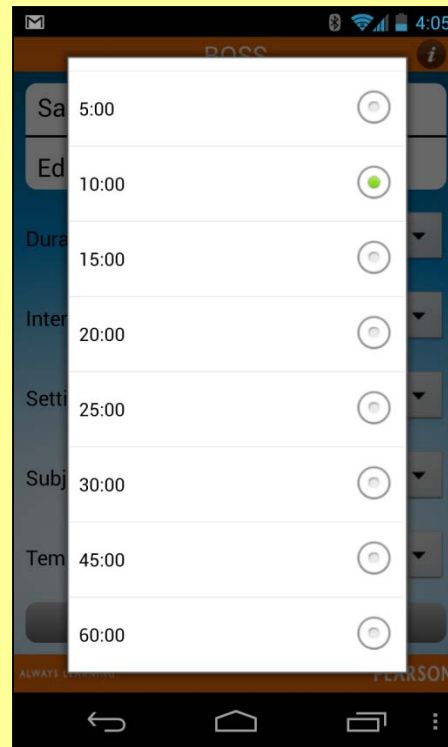
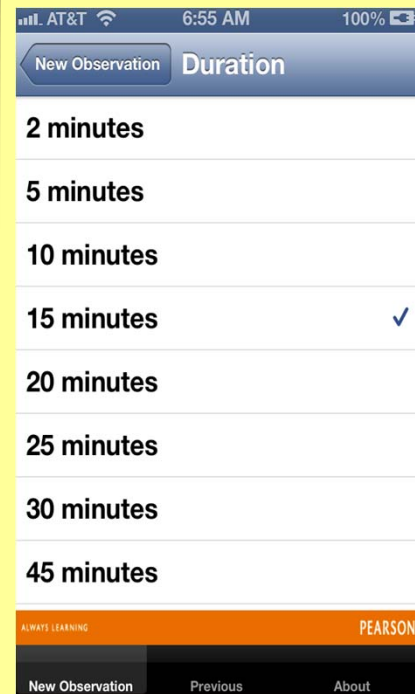
- ISW:TPsnt –
 - Student = Individual Seatwork: Teacher Present
- ISW:TSmGp
 - Student = Individual Seatwork: Teacher working with the group
- SmGP:TPsnt
 - Student = small group (<10): Teacher working with group
- LgGp:TPsnt
 - Student = large group (10+): Teacher working with large group
- Other – User defined

Entering User Defined Field (iPhone illustrated)

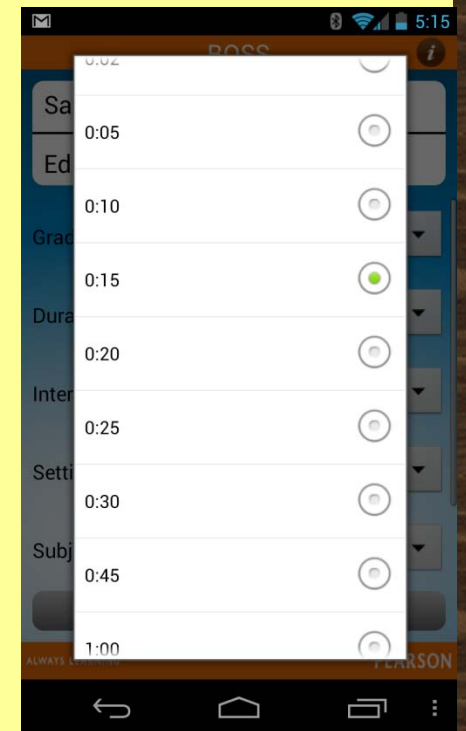
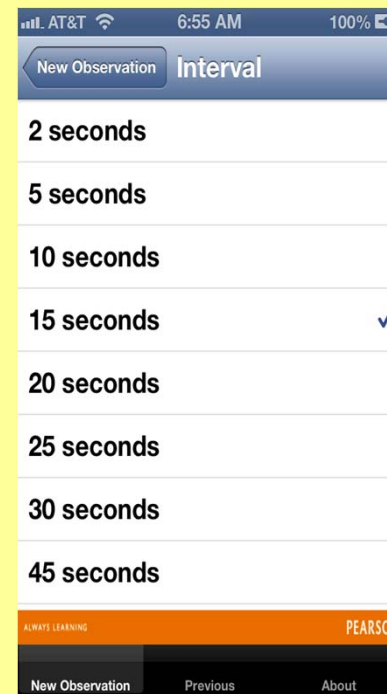



Key Information

- Duration



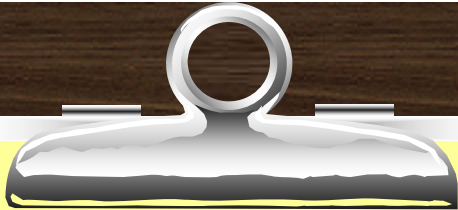
- Interval





BOSS Observation Codes **(Template = Default)**

- On-task behavior subdivided:
 - Actively Engaged Time (AET)
 - Passively Engaged Time (PET)
- Off-task behavior subdivided:
 - Off-Task Motor (OFT-M)
 - Off-Task Verbal (OFT-V)
 - Off-Task Passive (OFT-P)
- Teacher Directed Instruction (TDI)

- 
- ## Active Engaged Time (AET)
- **AET is defined as those times when the student is actively attending to the assigned work**
 - **Examples:**
 - Writing
 - Reading aloud
 - Raising a hand to answer a teacher's question
 - Talking to the teacher about the assigned material
 - Talk to a peer about the assigned material
 - Looking up a word in a dictionary
 - Typing essay on computer
 - **AET should not be scored if the student is:**
 - Talking about nonacademic materials (OFT-V)
 - Walking to the worksheet bin (OFT-M)
 - Calling out (OFT-V) – Unless it is considered an appropriate response style for the classroom
 - Aimlessly flipping the pages of a book (OFT-M)
 - Any other form of off-task behavior



Passive Engaged Time (PET)

- **PET is defined as those times when the student is passively attending to the assigned work**
 - **At times it may be difficult to determine immediately whether the child is passively engaged or daydreaming (OFT-P) at the 1st moment of an interval**
 - **If it becomes apparent within 3 seconds after the start of the interval that the students was OFT-P or PET you can change your response**
- **Examples:**
 - Listening to a lecture
 - Looking at an academic worksheet
 - Reading assigned material silently
 - Looking at the blackboard during teacher instruction
 - Listening to a peer respond to a question
- **PET should not be scored if the student is:**
 - Aimlessly looking around the classroom (OFT-P)
 - Silently reading unassigned material (OFT-P)
 - Any other form of off-task behavior



OFF-Task Motor (OFT-M)

- **OFT-M behaviors are defined as any instance of motor activity that is not directly associated with an assigned academic task**
- **Examples:**
 - Engaging in any out-of-seat behavior (defined as buttocks not in contact with seat)
 - Aimlessly flipping the pages of a book
 - Manipulating objects not related to the academic task (e.g., playing with a paper clip, throwing paper, twirling a pencil, & folding paper)
 - Physically touching another student when not related to an academic task
 - Bending or reaching (e.g., picking up a pencil off the floor)
 - Drawing or writing that is not related to an assigned academic activity
 - Turning around in one's seat, oriented away from the classroom instruction
 - Fidgeting in one's seat (i.e., engaging in repetitive motor movements for at least 3 consecutive seconds; student must be off-task for this category to be scored)
- **OFT-M should not be scored if the student is:**
 - Passing paper to a student, as instructed by the teacher (AET)
 - Coloring on an assigned worksheet as instructed by the teacher (AET)
 - Laughing at a joke told by another student (OFT-V)
 - Swinging feet while working on assigned material (AET or PET)



OFF-Task Verbal (OFT-V)

- **OFT-V behaviors are defined as any audible verbalizations that are not permitted and/or are not related to an assigned academic task**
- **Examples:**
 - Making any audible sound, such as whistling, humming, forced burping
 - Talking to another student about issues unrelated to an assigned academic task
 - Talking to another student about an assigned academic task when such talk is prohibited by the teacher
 - Making unauthorized comments or remarks
 - Calling out answers to academic problems when the teacher has not specifically asked for an answer or permitted such behavior
- **OFT-V should not be scored if the student is:**
 - Laughing at a joke told by the teacher
 - Talking to another student about the assigned academic work during a cooperative learning group (AET)
 - Calling out the answer to a problem when the teacher has permitted such behavior during instruction (AET)



OFF-Task Passive (OFT-P)

- **OFT-P behaviors are defined as those times when a student is passively not attending to an assigned academic activity for a period of at least 3 consecutive seconds within an interval**
 - **If the interval ends before the 3 consecutive seconds, OFT-P is not scored for that interval**
 - **The Count starts over – a new 3 consecutive seconds is needed to score OFT-P in the new interval**
- **Examples:**
 - Student is quietly waiting after the completion of an assigned task but is not engaged in an activity authorized by the teacher
 - Sitting quietly in an unassigned activity
 - Looking around the room
 - Staring out the window
 - Passively listening to other students talk about issues unrelated to the assigned academic activity
- **OFT-P should not be scored if the student is:**
 - Quietly reading an assigned book (PET)
 - Passively listening to other students talk about the assigned work in a cooperative learning group (PET)



Teacher-Directed Instruction (TDI)

- **TDI is defined as those times when the teacher is directly instructing the class or individuals within the class**
 - **Provides a sampling of time in which the teacher is actively engaged in direct instruction of the classroom**
- **Examples:**
 - Instructing the whole class or group
 - Demonstrating academic material at the board
 - Individually assisting a student with an assigned task
- **TDI should not be scored if the teacher is:**
 - Scolding/Reprimanding the class or an individual student for misbehavior
 - Giving instructions for an academic activity
 - Sitting at his/her desk grading papers
 - Speaking to an individual student or the class about nonacademic issues



Time Sampling

- 1 observation of each behavior per interval (15 sec is default)
- **Momentary:**
 - Codes: AET & PET
 - At the start/beginning of each interval
 - Observer determines whether the student is on-task
 - Touch the appropriate button
 - Buttons are toggle (on/off switches)
- **Partial interval:**
 - Codes: OFT-M, OFT-V, OFT-P, & TDI
 - If any of these behaviors occur at any point during the interval, touch the corresponding button
 - Exception is OFT-P: need to be OFT-P for 3 consecutive seconds within the interval before can record it
 - Buttons are toggle (on/off switches)
- **Every 5th Interval Record Behaviors for TDI & Comparison Peer**
 - Buttons are toggle (on/off switches)

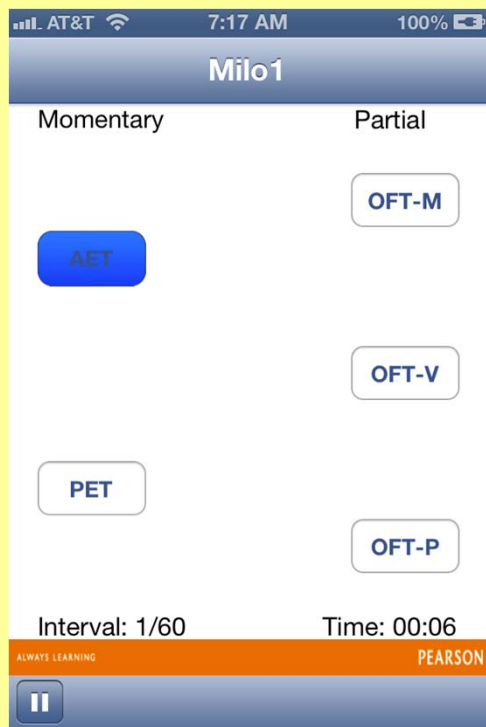


Plan for Choosing Comparison Peers

- Every 5th interval collect information on comparison peers
 - Data for peer observations combined to form peer comparison total
- Selection of peers
 - Before observation decide sequence of peer comparison observations
 - Example: Start in the front left of the classroom & observe a different peer every 5th interval, moving down the row and then from back to front
 - Clockwise or counterclockwise
- Important to have an observation plan throughout before beginning the observation of the target student²⁷

BOSS Template Observations

- iPhone



- Android



Peer Observation

iPhone

The iPhone app interface is titled "Peer" and features a light blue background. It is divided into two columns: "Momentary" on the left and "Partial" on the right. Under "Momentary", there are buttons for "AET", "PET", and "TDI". Under "Partial", there are buttons for "OFT-M", "OFT-V", and "OFT-P". At the bottom, it displays "Interval: 5/40" and "Time: 01:01". The footer includes "ALWAYS LEARNING" on the left, "PEARSON" on the right, and a pause button in the center.

Android

The Android app interface is titled "BOSS" and features a dark blue background. It shows "Interval 5 of 20" and a timer at "1:05". It is divided into two columns: "Momentary" on the left and "Partial" on the right. Under "Momentary", there are radio buttons for "AET" (selected) and "PET". Under "Partial", there are checkboxes for "OFT-M", "OFT-V" (checked), and "OFT-P". At the bottom, there is a checked checkbox for "TDI". A large "End" button is at the bottom center, and a play button is at the bottom right. The footer includes "ALWAYS LEARNING" on the left, "PEARSON" on the right, and the number "29" in the bottom right corner.

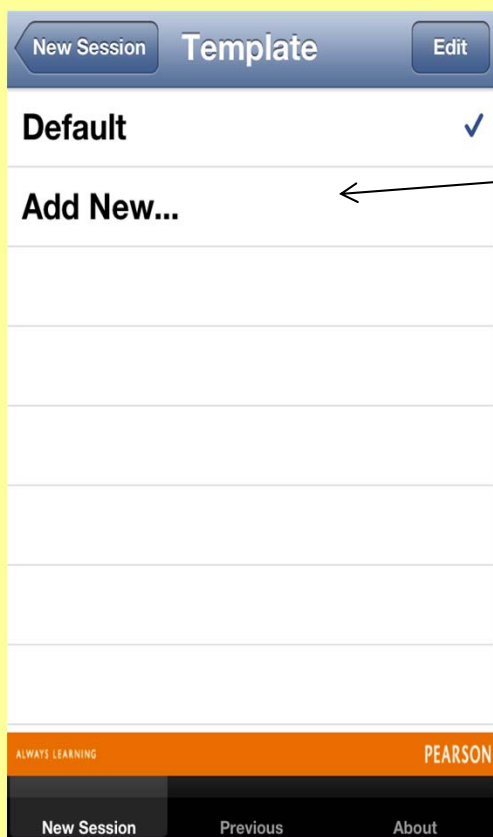


Customizing the Template

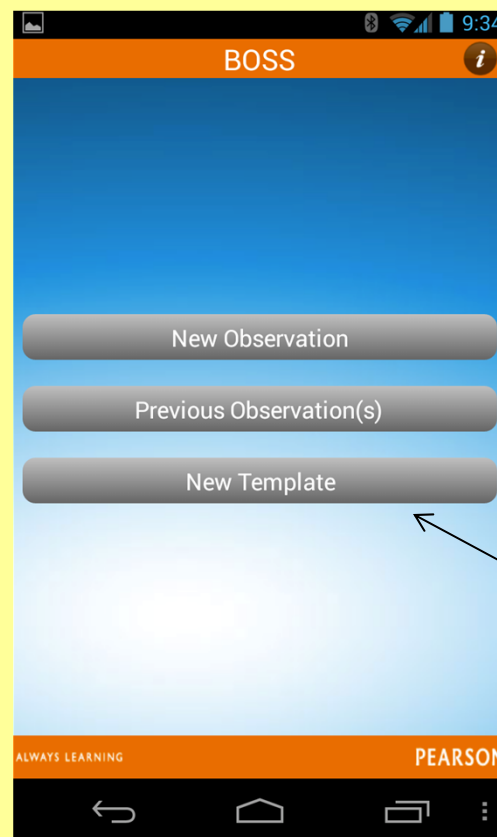
- BOSS Apps allow user to develop user defined template
- Can include any user defined category of behavior
- Can mix BOSS categories with user defined category
- Template is saved for future use

Setting Up Custom Templates

iPhone



Android



Setting Up Custom Templates

iPhone

Template Add New Done

Name

Momentary

Add Momentary Button...

Partial

Add Partial Button...

ALWAYS LEARNING PEARSON

New Session Previous About

Android

BOSS

Momentary Partial

CalOut OutSea

Touch

Shout

RaiseH

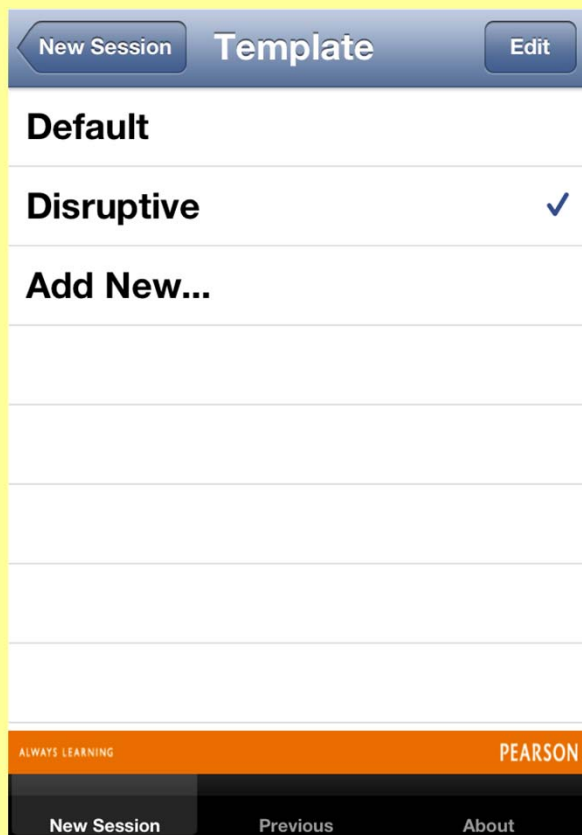
Add Momentary Add Partial

Save

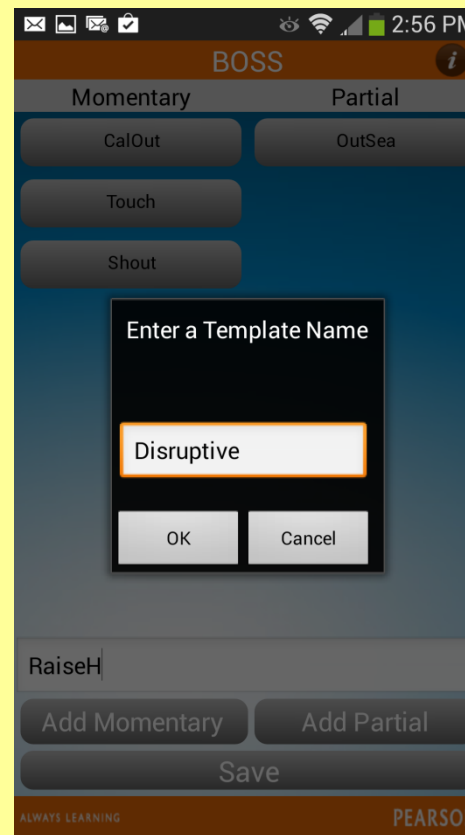
ALWAYS LEARNING PEARSON

Setting Up Custom Templates

iPhone

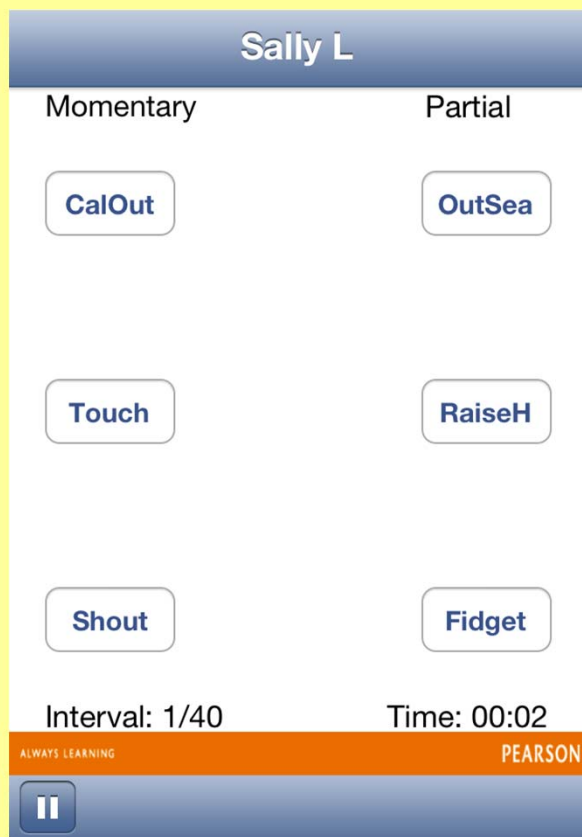


Android

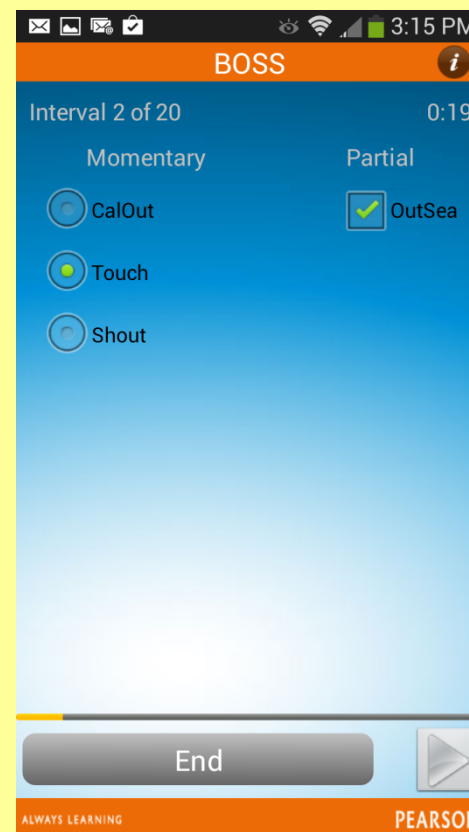


Setting Up Custom Templates

iPhone

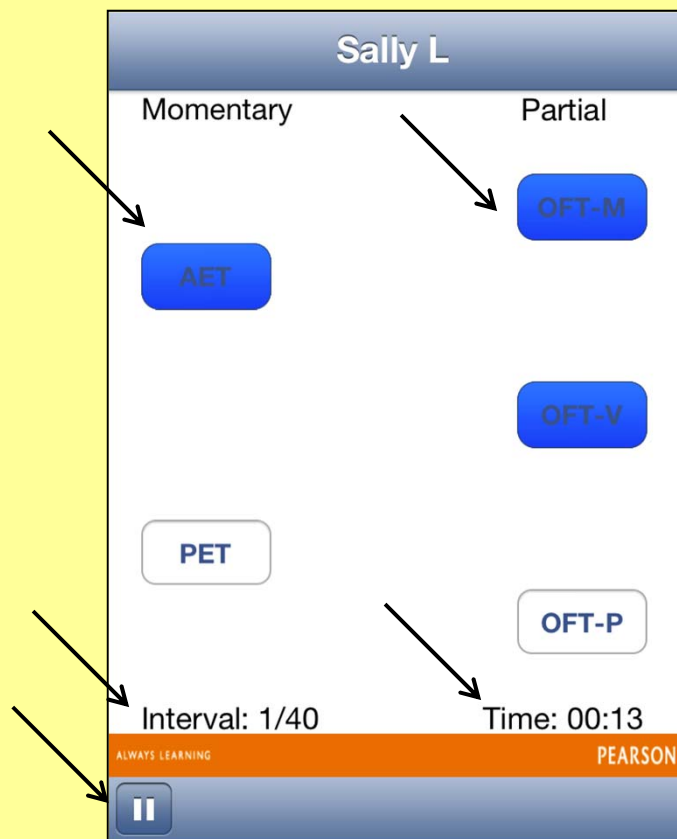


Android

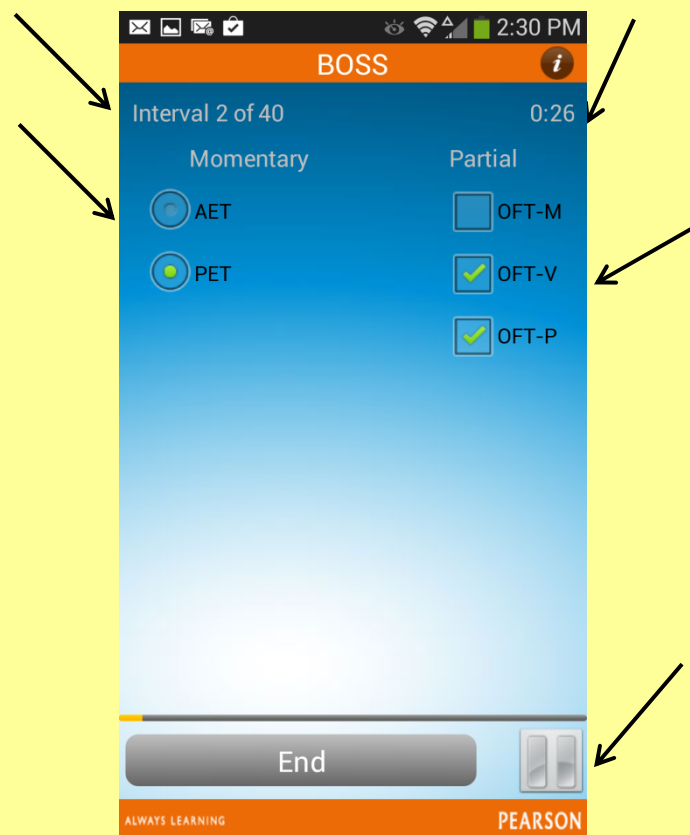


Conducting the Observation

iPhone

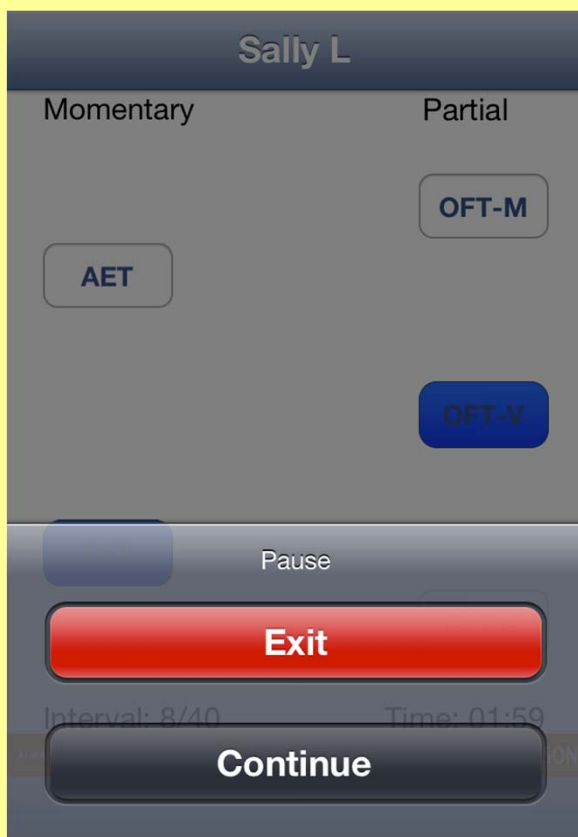


Android



Conducting the Observation

iPhone



Android



When the Observation is Completed

iPhone

AT&T 7:40 PM 69%

New Observation Sep 26, 2013

Observation Details

| | |
|---------------|------------|
| Observer Name | Sally |
| Student Name | Dan |
| School | Parkland |
| Grade | 3 |
| Task | Reading |
| Setting | SmGp:TPsnt |
| Duration | 02:46 |

ALWAYS LEARNING PEARSON

New Observation Previous About

Android

BOSS

| | |
|----------|--------------|
| Name | Sally L |
| Observer | Ed S |
| Grade | 2 |
| Subject | Reading |
| Setting | ISW:TPsnt |
| Date | Feb 25, 2013 |
| Template | Default |

Students

| | |
|---------|----|
| AET:6 | 30 |
| PET:8 | 40 |
| OFT-M:8 | 40 |
| OFT-V:4 | 20 |

Home Delete Email

ALWAYS LEARNING PEARSON

When the Observation is Completed

iPhone

| Target Stats | |
|--------------|--------|
| AET | 44.44% |
| PET | 22.22% |
| OFT-M | 44.44% |
| OFT-V | 33.33% |
| OFT-P | 55.56% |

| Peer Stats | |
|------------|--------|
| AET | 50.00% |
| PET | 50.00% |
| OFT-M | 50.00% |
| OFT-V | 0.00% |
| OFT-P | 0.00% |

| Teacher Stats | |
|---------------|---------|
| TDI | 100.00% |

Navigation: New Observation | Previous | About

Android

| BOSS | |
|---------|--------|
| OFT-M:4 | 25% |
| OFT-V:8 | 50% |
| OFT-P:9 | 56.25% |

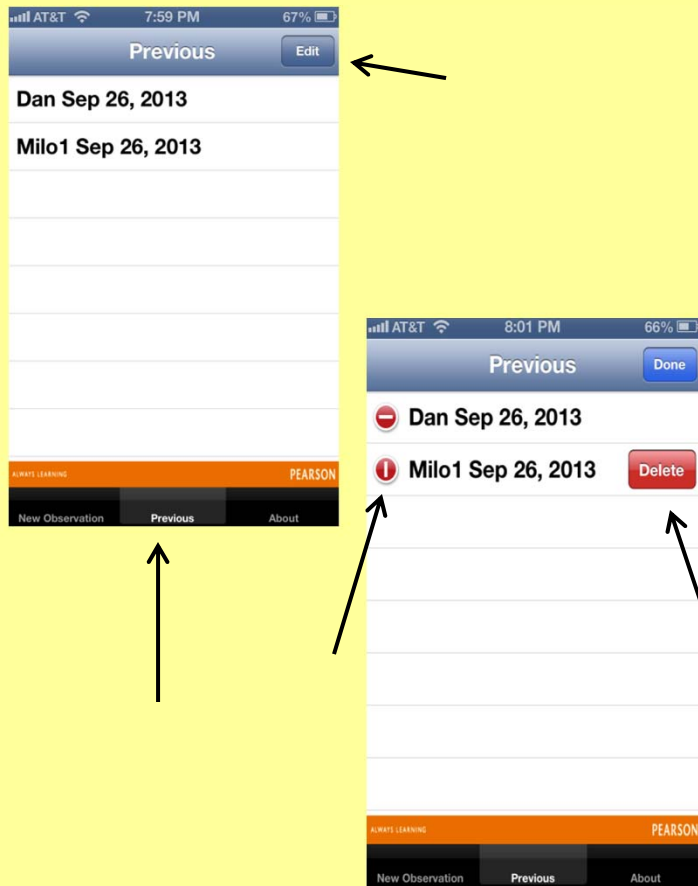
| Peer/Teacher | |
|--------------|------|
| AET: 2 | 50% |
| PET: 2 | 50% |
| OFT-M: 1 | 25% |
| OFT-V: 2 | 50% |
| OFT-P: 2 | 50% |
| TDI: 4 | 100% |

| | |
|-----------------------------|------|
| Duration | 5:00 |
| Interval | 0:15 |
| Number of Student Intervals | 16 |
| Number of Peer Intervals | 4 |

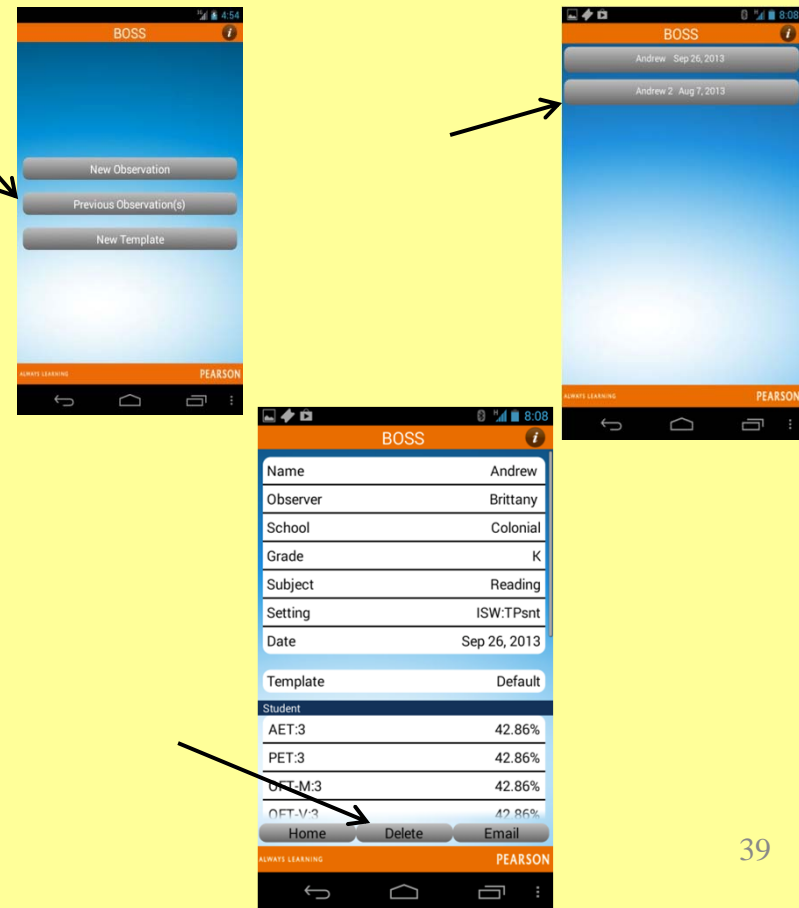
Navigation: Home | Delete | Email

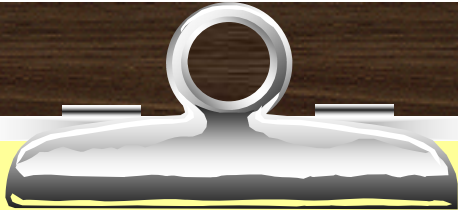
Previous Observations

iPhone



Android



- 
- # Sample Observation
- Focus on target student
 - Homero = Target
 - Student sitting to right in orange used as peer observation

Reports from the BOSS App

iPhone

| Feb 19, 2013 | |
|-----------------|-----------|
| Observer Name | Dan S |
| Student Name | Sally L |
| School | Carnell |
| Grade | 3 |
| Task | Reading |
| Setting | ISW:Tpsnt |
| Duration | 06:14 |
| Interval Length | 15 sec |

Android

| BOSS | |
|----------|--------------|
| Name | Milo2 |
| Observer | Ed S |
| School | Carnell |
| Grade | K |
| Subject | Reading |
| Setting | ISW:TPsnt |
| Date | Sep 26, 2013 |
| Template | Default |

| Student | |
|---------|--------|
| AET:7 | 43.75% |
| PET:7 | 43.75% |
| OFT-M:4 | 25% |
| OFT-V:8 | 50% |
| OFT-P:9 | 56.25% |



Reports Generated

- Professional report including graphics-outputs as .pdf file
- CSV file

Page 1

- Basic Identification Info
- Count and Percent of each category of behavior
- Interval table showing results of each interval

BOSS Results

Student: Milo 1

Observer: Ed S **Grade:** 1 **School:** Darby
Date: Jul 30, 2013 **Time:** 10:01 PM **Task:** Language Arts
Setting: ISW:Tpsnt **Duration:** 02:00 min **Interval:** 10 sec

| Behavior | Target Student | | Peer Student | | Teacher | |
|-----------------|----------------|---------|----------------------|---------|---------|---------|
| | Count | Percent | Count | Percent | Count | Percent |
| AET | 5 | 50.00% | 1 | 50.00% | - | - |
| PET | 5 | 50.00% | 1 | 50.00% | - | - |
| OFT-M | 5 | 50.00% | 1 | 50.00% | - | - |
| OFT-V | 4 | 40.00% | 1 | 50.00% | - | - |
| Target Ints: 10 | | | Peer/Teacher Ints: 2 | | | |

| Interval Table | | | | | |
|----------------|-----|-----|-------|-------|-------|
| | AET | PET | OFT-M | OFT-P | OFT-V |
| 1 | 1 | 0 | 1 | 0 | 0 |
| 2 | 1 | 0 | 0 | 1 | 0 |
| 3 | 0 | 1 | 1 | 0 | 1 |
| 4 | 1 | 0 | 0 | 0 | 1 |
| 5 | 0 | 1 | 1 | 0 | 1 |
| 6 | 0 | 1 | 0 | 1 | 0 |
| 7 | 1 | 0 | 1 | 0 | 0 |
| 8 | 0 | 1 | 1 | 1 | 1 |
| 9 | 0 | 1 | 0 | 0 | 0 |
| 10 | 1 | 0 | 0 | 1 | 0 |
| 11 | 1 | 0 | 0 | 0 | 1 |
| 12 | 0 | 1 | 1 | 0 | 0 |

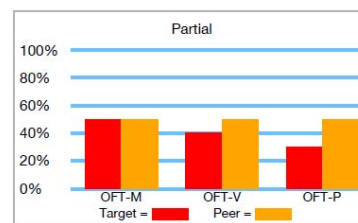
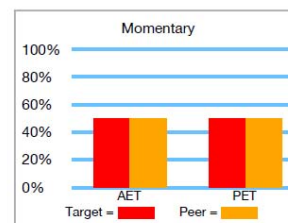
Page 2

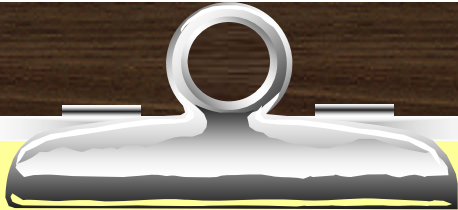
- Behavior Legend (only evident for Default BOSS template)
- Graphic illustrations (in color) of Momentary and Partial intervals behaviors
- Graphic comparisons of target and peers on each behavior

Behavior Legend

- AET** Actively Engaged in Task
- PET** Passively Engaged in Task
- OFT-M** Off Task - Motor
- OFT-V** Off Task - Verbal
- OFT-P** Off Task - Passive
- TDI** Teacher Directed

Graphical Analysis





CSV File

- Opens an CSV spreadsheet within MS-Excel
- Provides same data as pdf
- Format permits manipulation of the data

| | | | | | | | | | | | |
|----------------|-------------|-------|--------|-------|--------|-------|--------|-------|--------|--|--|
| Observer | Ed S | | | | | | | | | | |
| Student N: | Milo2 | | | | | | | | | | |
| School | Upper | | | | | | | | | | |
| Grade | 3 | | | | | | | | | | |
| Task | Mathematics | | | | | | | | | | |
| Setting | LgGp:Tpsnt | | | | | | | | | | |
| Duration | 10:00 | | | | | | | | | | |
| Interval Le | 15 sec | | | | | | | | | | |
| Target Stats: | | | | | | | | | | | |
| AET | 25.00% | PET | 50.00% | OFT-M | 25.00% | OFT-V | 40.62% | OFT-P | 25.00% | | |
| Peer Stats: | | | | | | | | | | | |
| AET | 75.00% | PET | 25.00% | OFT-M | 12.50% | OFT-V | 25.00% | OFT-P | 37.50% | | |
| Teacher Stats: | | | | | | | | | | | |
| TDI | 75.00% | | | | | | | | | | |
| Intervals: | | | | | | | | | | | |
| AET | PET | OFT-M | OFT-P | OFT-V | TDI | | | | | | |
| 0 | 1 | 0 | 0 | 0 | 1 | | | | | | |
| 1 | 0 | 0 | 0 | 0 | 1 | | | | | | |
| 0 | 1 | 1 | 0 | 0 | | | | | | | |
| 0 | 1 | 0 | 0 | 0 | 1 | | | | | | |
| 1 | 0 | 0 | 1 | 0 | 0 | | | | 0 | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | | | | | |
| 1 | 0 | 0 | 0 | 0 | 0 | | | | | | |
| 0 | 1 | 1 | 0 | 1 | | | | | | | |
| 1 | 0 | 0 | 0 | 0 | 0 | | | | 1 | | |
| 0 | 1 | 1 | 0 | 0 | 0 | | | | | | |
| 1 | 0 | 0 | 0 | 0 | 1 | | | | | | |
| 0 | 1 | 0 | 0 | 0 | 1 | | | | | | |
| 0 | 1 | 1 | 0 | 0 | 0 | | | | | | |
| 1 | 0 | 0 | 0 | 0 | 1 | | | | | | |
| 0 | 1 | 0 | 1 | 0 | 0 | | | | 1 | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | | | | | |
| 0 | 1 | 0 | 0 | 1 | 1 | | | | | | |
| 0 | 1 | 0 | 1 | 0 | | | | | | | |
| 0 | 1 | 0 | 1 | 1 | | | | | | | |
| 0 | 1 | 0 | 0 | 0 | 0 | | | | | | |
| 0 | 1 | 0 | 0 | 1 | 0 | | | | 1 | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | | | | | |
| 0 | 1 | 0 | 0 | 1 | 0 | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | | | | | |
| 1 | 0 | 1 | 1 | 1 | | | | | | | |
| 1 | 0 | 0 | 1 | 0 | 0 | | | | 0 | | |
| 0 | 1 | 0 | 1 | 0 | | | | | | | |
| 0 | 1 | 1 | 0 | 0 | | | | | | | |
| 0 | 1 | 1 | 0 | 1 | | | | | | | |
| 1 | 0 | 0 | 0 | 1 | 0 | | | | | | |
| 1 | 0 | 0 | 0 | 1 | 1 | | | | 1 | | |
| 1 | 0 | 0 | 0 | 0 | 1 | | | | | | |
| 0 | 1 | 1 | 0 | 1 | | | | | | | |
| 0 | 0 | 0 | 1 | 0 | | | | | | | |
| 0 | 0 | 0 | 0 | 1 | 0 | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | | | | | |
| 0 | 1 | 0 | 0 | 0 | 1 | | | | | | |



BOSS Interpretation

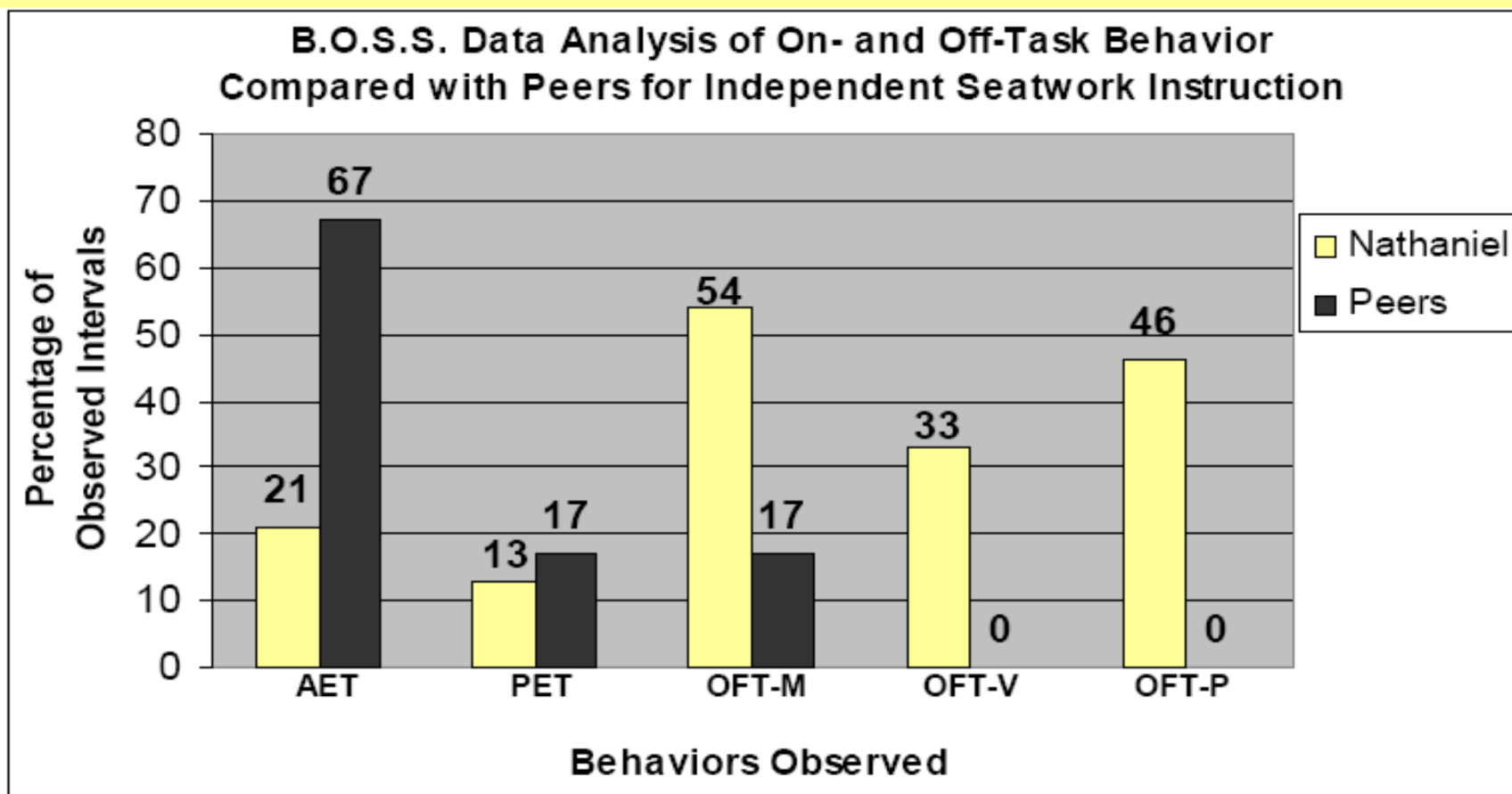
- Data obtained during observation **DO NOT** represent an estimate of the amount of time that a behavior would occur
- Because observation system is derived from a time-sampling strategy, it would be **inaccurate** to say that the behavior occurred for % of the time
- Report findings as % of the **observed intervals**
 - Partial-interval recording systems are likely to overestimate the actual rate of a behavior's occurrence
 - Data collected for target student are more reliable & stable than the data collected for peer comparison purposes
 - The more observation intervals, the better the stability of the measure



BOSS Interpretation

- Meet with teacher after observation:
 - Does observation represent typical classroom behavior?
- Levels of academic engagement & nonengagement for target student in the particular observation setting
 - Levels of AET/PET combined vs Levels and types of OFT behavior = amount of on/off task
 - Extent to which target student is effectively engaged in the learning process
- Comparisons across multiple settings
 - Relative differences in the target student's academic engagement in different instructional environments
- Differences between AET/PET suggests opportunity to respond problems
 - Students who are struggling in school are often to have relatively low levels of AET even when they are on-task
- Compare the performance of target to peers
 - Type of local normative data
 - Degree to which the levels of target's behavior differed from classroom expectations

Visual Representation of the Data



Embed BOSS Data in Reports

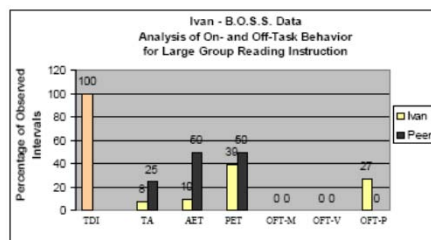
Sample 4: Reporting BOSS Data

Direct Observation

Ivan was directly observed in the classroom for approximately 20 minutes during readers' workshop and 20 minutes during small group reading instruction. For reader's workshop, Ivan was instructed in a large group setting. Mrs. Zigman asked the students to warm-up with a short book by engaging in repeated readings of the same text. Next, Mrs. Zigman lead the student in a sight word activity. She first modeling the activity, then had the students engage in the activity, and finally provided opportunity for independent practice and corrective feedback.

Ivan's behavior was observed using the Behavior Observation System for Students (B.O.S.S.; Shapiro, 2004). Ivan's level of engagement in academic tasks was observed and recorded using momentary time sampling, and his off-task behavior was measured using partial interval recording. An additional code of teacher attention was added based on Mrs. Zigman's observations that Ivan only responds when prompted by the teacher. Teacher attention was recorded using momentary time sampling. Every fifth interval information was collected on the same behaviors for comparison peers. Additionally, teacher directed instruction was recorded every fifth interval.

Results¹ are illustrated in the graph below, which reflects the percentage of intervals in which Ivan and his comparison peers were observed to be academically engaged, off-task, and to receive teacher attention.

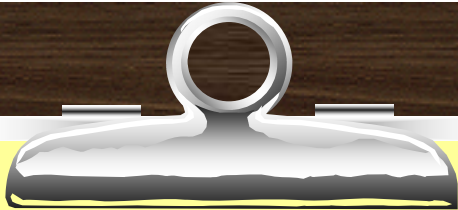


¹ TDI – Teacher Directed Instruction; TA – Teacher Attention; AET – Active Engaged Time; PET – Passive Engaged Time; OFT-M – Off-Task Motor; OFT-V – Off-Task Verbal; OFT-P – Off-Task Passive

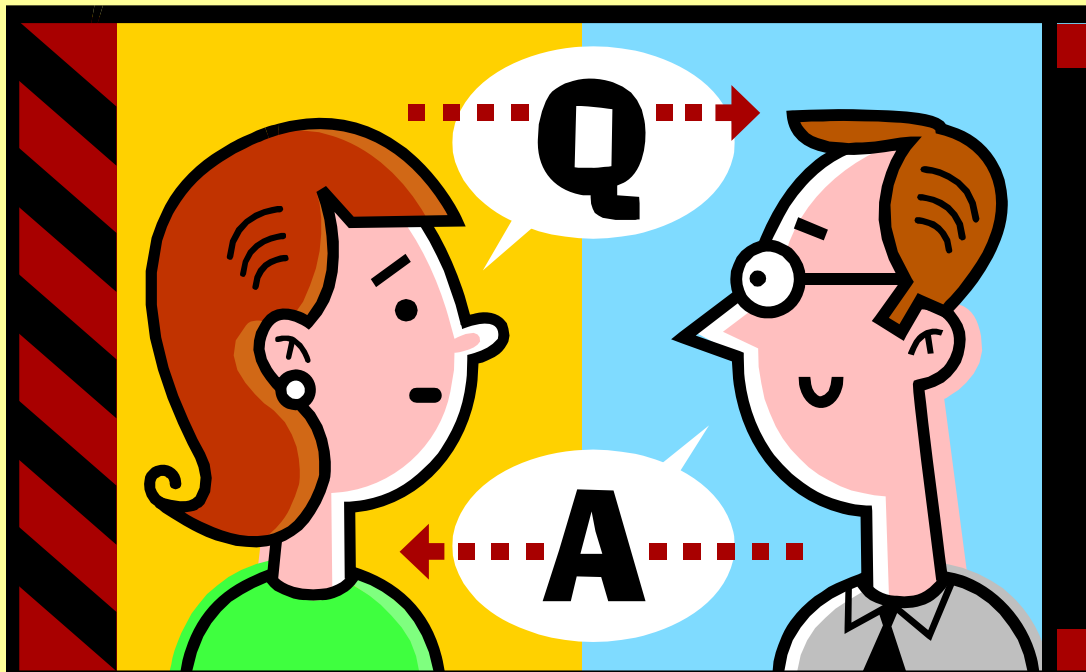


Research Publications with the BOSS

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- Hosterman, S.J., DuPaul, G. J., & Jitendra, A. (2008). Teacher ratings of ADHD symptoms in ethnic minority students: Bias or behavior differences? *School Psychology Quarterly, 23*, 418-435.
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- Kraemer, E.E., Davies, S.C., Arndt, K. J., & Hunley, S. (2012). A comparison of the mystery motivator and the “Get ‘Em On Task” interventions for off-task behaviors. *Psychology in the Schools, 49*, 163-175.
- Pfifner, L.J., Villodas, M., Kaiser, N., Tooney, M., & McBurnett, K. (2013). Educational outcomes of collaborative school-home behavioral intervention for ADHD. *School Psychology Quarterly, 28*, 25-36.
- Riley, J. L., McKevitt, B. C., Shriver, M. D., & Allen, J. (2011). Increasing on-task behavior using teacher attention delivered on a fixed time schedule. *Journal of Behavioral Education, 20*, 149-162.
- Steiner, N. J., Sidhu, T., Rene, K., Tomasetti, K., Frenette, E., & Brennan, R. T. (2013). Development and testing of a direct observation code training protocol for elementary aged students with attention deficit/hyperactivity disorder. *Educational Assessment, Evaluation and Accountability*, DOI 10.1007/s11092-013-9166-x.

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- # Bottom Line BOSS
- Provides quantitative index to observing behavior
 - Easy to use, flexible, and meaningful to understanding classroom behavior
 - Opportunity to customize beyond BOSS template
 - Relevant and needed for conducting school-based evaluations
 - Valuable tool linked to best practice in assessment

Questions?





Available on iTunes and
Google Play
Search “BOSS Education”

