

Empowering Teachers with Low Intensity Strategies to Support Instruction II

**Direct Observation of Behavior:**  
Momentary Time Sampling



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Agenda

- Overview of Direct Observation
  - Momentary Time Sampling
- Behavioral Definitions
  - Active Academic Engagement (AAE)
  - Passive Academic Engagement (PAE)
  - Off-Task (OFF)
- Completing Recording Forms
- Inter-observer Agreement



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**DIRECT OBSERVATION**



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What is direct observation?

- Direct observation involves collecting data while the behavior is actually occurring
- Benefits of direct observation include:
  - It is a objective form of measurement
  - More reliable than some indirect forms of measurement
  - Allows for both formative and summative evaluation
  - Makes it possible to determine the effects of interventions or strategies on students' behavior

*Alberto & Troutman, 2015; Maag, 2007*



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When will data be collected?

- Direct observation data will be collected:
  - During the same time/activity each day
  - Baseline
  - Intervention
  - Follow up



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**MOMENTARY TIME SAMPLING**



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## What is momentary time sampling

- An interval recording method
- Session divided into equal intervals
- Observer is alerted by a signal to record behavior and notes the students' behavior at that "moment"
- Behavior is recorded
- Behavior is summed at the end of the observation session



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## What are some benefits to using momentary time sampling?

- Does not require attention to the target student(s) behavior for the duration of the observation period
- Can be implemented in the classroom while performing other duties
- Can be used to collect data on multiple students simultaneously
- Provides an estimate of behavior
- Can be collected with reliability in a classroom setting
- Useful for recording behaviors that occur frequently or last for longer periods of time

[http://www.specialconnections.ku.edu/?q=assessment/data\\_based\\_decision\\_making/teacher\\_tools/momentary\\_time\\_sample\\_recording](http://www.specialconnections.ku.edu/?q=assessment/data_based_decision_making/teacher_tools/momentary_time_sample_recording)



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## BEHAVIORAL DEFINITIONS



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### What are behavioral definitions?

- A good behavioral definition is *observable, measurable, repeatable*:
  - Objective – refers only to observable behaviors or behavioral characteristics
  - Clear – unambiguous and readable
  - Examples and nonexamples – what behaviors are included and excluded from the definition

Hawkins & Dobes (1977) 



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### Academic Engagement

- Academic engagement is an important indicator of a student's academic success and general adjustment to the requirements of academic settings.
- It refers to the amount of time a student spends actively engaged, attending to, and working on relevant academic material.
- It means that the student is appropriately engaged in or working on assigned academic material that is geared to her/his ability and skill levels.



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### Active vs. Passive Academic Engagement

By differentiating between active and passive academic engagement we gather a more accurate picture of how the student spend their time in the classroom.

Behavioral Observation of Students in Schools (Shapiro, 2004)



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### Active Academic Engagement (AAE)

- AAE is recorded when a student is actively engaged in academic responding:
  - Writing
  - Reading aloud
  - Raising a hand to answer a teacher's question
  - Talking to a teacher and/or peer about the assigned material
  - Typing or writing an answer
  - Looking up a word in a dictionary/book



Behavioral Observation of Students in Schools (Shapiro, 2004)

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### Nonexamples of AAE

- Engaging in off-task behavior (doodling, sleeping, fidgeting without working)
- Talking about nonacademic materials
- Walking to another area of the room
- Calling out
- Aimlessly flipping the pages of a book
- Listening to a lecture
- Looking at an academic worksheet
- Reading assigned material silently



Behavioral Observation of Students in Schools (Shapiro, 2004)

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### Passive Academic Engagement (PAE)

- PAE is defined as those times when the student is passively attending to the assigned work:
  - 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



Behavioral Observation of Students in Schools (Shapiro, 2004)

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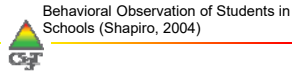
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### Nonexamples of PAE

- Engaging in off-task behavior (talking, doodling, sleeping, fidgeting without working)
- Aimlessly looking around the classroom
- Silently reading unassigned material
- Writing
- Reading aloud
- Raising a hand to answer a teacher's question 




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### Examples of Off-task Behavior

- Engaging in activities not related to the task at hand (i.e., not following teacher directions):
  - Doodling, sleeping, fidgeting without working
  - Aimlessly looking around the classroom
  - Reading, drawing or writing on unassigned material
  - Talking about nonacademic materials or without permission
  - Walking to another area of the room
  - Calling out
  - Aimlessly flipping the pages of a book
  - Physically touching another student when not related to an academic task
  - Bending or reaching (e.g., picking up a pencil off the floor)
  - Turning around in one's seat, oriented away from the classroom instruction
  - Making any audible sound, such as whistling, or humming 




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### Nonexamples of Off-task Behavior

- Reading (silently or aloud)
- Writing
- Raising a hand to answer a teacher's question
- Talking to a teacher and/or peer about the assigned material
- Typing or writing an answer
- Looking up a word in a dictionary/book
- 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 




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# DATA RECORDING FORM

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### Momentary Time Sampling Recording Form

**Empowering Teachers with Low Intensity Strategies to Support Instruction: A Focus on Instructional Choice**  
2 min Momentary Time Sampling

Work	Observer	Activity	Student
Reading aloud			
Looking at an academic worksheet			
Looking at an academic worksheet			
Looking at an academic worksheet			
Looking at an academic worksheet			
Looking at an academic worksheet			
Looking at an academic worksheet			
Looking at an academic worksheet			
Looking at an academic worksheet			




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### How do I complete the data recording form?

- ✓
**Step 1** • Before observation begins, record students' the names, date, and observer.
- ✓
**Step 2** • Review the behavioral definitions prior to each observation.
- ✓
**Step 3** • When you (and the reliability observer) are ready to begin, set your MotivAider to "Run."
- ✓
**Step 4** • Each time the interval timer pulses, circle the behavior observed.
- ✓
**Step 5** • Note any relevant information about the session in the notes section.


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**How do I complete the data recording form?**

**Step 6**  Compute AAE, PAE, and OFF.

- Add up the number of behaviors circled for each column for each student (sum of each behavior).
- Divide this number by the total number of intervals observed.
- Multiply by 100 and record each students' AAE, PAE, and OFF.

**Step 7**  Calculate Interobserver Agreement (IOA)

- Check each interval. Count up the number of intervals in which both the primary and reliability observers have the same determination (e.g., both AAE, both OFF).
- Divide this number by the total number of intervals observed (agreements + disagreements).
- Multiply by 100 and record.



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**INTEROBSERVER AGREEMENT**



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**How do I collect IOA data?**

- Independently
- Clear view of the student
- Timers synchronized
- Minimum of 25% of sessions



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### Check for Understanding

Complete the **Check for Understanding** on academic engagement to assess your level of understanding of the behavioral definitions.



*When you are finished with your quiz, review the behavioral definitions to prepare for our **video practice**.*



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### VIDEO Practice

- Practice until you have three consecutive observations of 90% or higher IOA



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