

Procedure: The MPES is designed to document engagement of persons with dementia (or other disabilities) during activities and is used by researchers or care providers, such as activity staff in long-term care or adult day health centers. Typically, those administering the scale observe single individuals during focused activities, although it is also possible to observe engagement and affect for a group. Observation time frames can vary. Typically, we have used the MPES in 5-minute, 10-minute, or 30-minute observation periods. As with any observational measure, it is best to try to be as unobtrusive as possible during the observation, although the observer should be able to hear the person's responses and view facial expressions and motor activity. Observers should be able to demonstrate inter-rater reliability of at least 80% for all items at a minimum of 30 observation windows before gathering data individually.

Scoring Criteria: Scoring is conducted through direct observation. Observers should have obtained inter-rater reliabilities of at least 80% for a minimum of 30 observation windows before recording data. Observers can be staff members, researchers, or even family members or other informal caregivers. In extreme circumstances, a person who has conducted an activity can record observations at the end of the activity. The MPES is designed as a heuristic measure to be used in real-world and practical circumstances as a means of determining and documenting levels and types of engagement and affect produced by activities.

In most instances, items are scored as either yes or no, or on a 3-point scale. For types of engagement and affect, items are rated as either not present, minimally present in the minutes observed, or majorly present in the minutes observed. This is done for two reasons: to make it easy to utilize the MPES in real-world circumstances and to increase inter-rater reliabilities for the instrument. In addition, several research studies have found that the MPES is sensitive enough to detect the effects of high-quality activity programming compared to standard activity programming for persons with dementia.

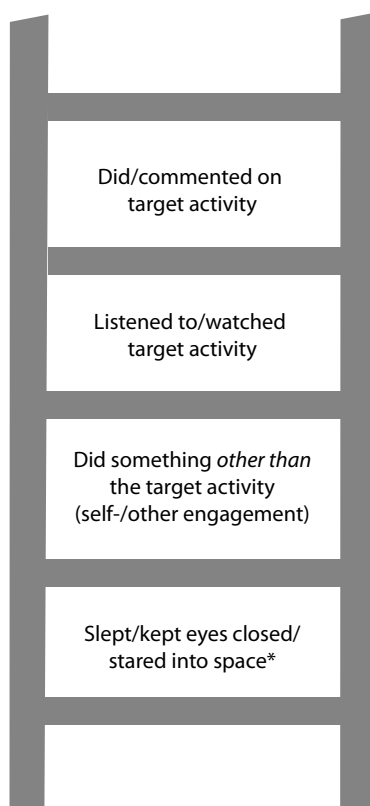
Note that each item represents a relatively unique aspect or manifestation of engagement or affect. Thus, rather than creating a composite score, individual item scores are generated from an observation. For example, if an individual constructively takes part in an activity for most of the observation and then sleeps for the very last segment of the observation, this would be shown by a score of "2" on item 4 (constructive engagement), scores of "0" for items 5 (passive engagement) and 6 (self-/other engagement), and a score of "1" for item 7 (nonengagement). There would be a different scoring profile for a person who sleeps for most of the activity then wakes up at the very end and makes an appropriate comment about the activity. This person would have a score of "1" for item 4 (constructive engagement), scores of "0" for items 5 (passive engagement) and 6 (self-/other engagement), and a score of "2" for item 7 (nonengagement). In general, most analyses using the MPES have taken scores averaged for each item across multiple observations and compared individuals on an item-by-item basis.

1. All behaviors, except for instances of constructive engagement, must occur for at least 3 seconds before they are coded. In the case of constructive engagement, you count every instance of the behavior. For example, if a resident picked up an object related to the target activity but only held the object for 2 seconds before putting it back down, this instance would still be coded as "did/commented on target activity." However, if a resident momentarily listened to the target activity for 2 seconds, this would not be coded as passive engagement because the instance was not 3 seconds in duration. If a resident is observed touching his or her hair for only a fraction of a second, the observer should not count this as "did or attended to things *other than* the target activity" because, again, the action was not 3 seconds in duration.
2. For items 4 (constructive engagement), 5 (passive engagement), 6 (self-/other engagement), and 7 (nonengagement), the following guidelines apply:
 - a. Constructive engagement (doing or commenting upon an activity) takes precedence over 1) passive engagement (listening or watching), 2) doing something other than the activity, and 3) nonengagement (sleeping/closing eyes/staring into space). So, if a person is doing an activity (e.g., singing a song) but also watching the activity coordinator, you should code "did/commented on target activity" as the relevant behavior. Also, if a resident is looking through her purse while singing a song, you should code "did/commented on target activity" as the relevant behavior. Finally, if a resident has his or her eyes closed while simultaneously playing a piano during a music therapy session, you should code "did/commented on target activity" as the relevant behavior.

- b. Passive engagement (listening or watching) takes precedence over doing something other than the activity. So, if a resident is watching other residents tango but is also playing with the buttons on his or her sweater, you should code "listened to/watched target activity" as the relevant behavior.
 - c. Finally, doing something other than the activity takes precedence over nonengagement (sleeping/closing eyes/staring into space). So, if a resident is fixing his or her hair and the resident's eyes are closed, "did or attended to things *other than* the target activity" should be coded as the relevant behavior.
3. For items 4, 5, 6, and 7, you can only code one "2" (more than half of the activity) on a given observation. This is because more than one "2" (more than half of the activity) would total more than 5 minutes. *In other words, if one type of engagement occurs more than half of the time, all other types must be up to half the time or not at all.*
4. For items 8 (pleasure) and 9 (anxiety/sadness), the following guidelines apply:
- a. Be sure only to code *obvious and clearly observable* displays of these emotions. For item 8, look for smiling, laughing, or verbalizations that clearly indicate pleasure. For item 9, look for crying or verbalizations that clearly indicate sadness. For anxiety, look for anxious verbalizations or movements (e.g., hand-wringing) combined with anxious facial displays. Never assume a resident is experiencing one of these emotions. Always look for an overt sign of these emotions. Observers should not make inferences as to how a resident feels; they should only document the behaviors they can clearly see.
 - b. It is possible to see both anxiety/sadness and pleasure being expressed during the same observation period, although extremely unusual. Be careful when you code for these items. Again, you are only coding for obvious signs of these emotions and not making guesses about how a resident is feeling.
 - c. Although it is possible, it is also unusual to see either pleasure or anxiety/sadness for more than half the activity (greater than 2.5 minutes). Although you may see a resident smiling many times throughout the observation, does the total amount of time he or she was smiling (or expressing sadness/anxiety) equal greater than 2.5 minutes? Most often the answer is no. This is a common error that many people make, so be mindful of this when you consider coding a "2" (more than half of the activity) for these items.

MPES Scoring Hierarchy: The following MPES hierarchy helps researchers determine which behavior to code when two are occurring simultaneously. When observing two behaviors at the same time, researchers code the behavior that is higher on the following “ladder,” since the purpose of the MPES is to document the highest level of engagement that a person with dementia is capable of displaying. This approach may be useful in demonstrating to staff members and others that the person with dementia is more capable of engaging in activities and accomplishing tasks than negative stereotypes about dementia might suggest.

MPES Hierarchy Ladder



**Exception to the hierarchy:* If the person shows clearly observable signs of being asleep (deep breathing, closed eyes, snoring), then “slept/kept eyes closed/stared into space” should be coded, even if the person is grasping onto activity-related materials (In other situations this would be coded as “did/commented on target activity.”)

Item Definitions:

1. Participated in target activity

A participant participates in an activity if:

- The participant is constructively engaged during the observation (i.e., item number 4 is coded "1" or "2").
AND/OR
- The participant is passively engaged during an observation (i.e., item number 5 is coded "1" or "2").

2. Tried to leave on own

A participant tries to leave an activity on his or her own if:

- The participant is making a concerted effort to leave the activity.
 - Do not code "yes" unless it is *obvious* that the resident is trying to leave.
 - Pay special attention to residents in wheelchairs or those who cannot move without assistance. They may not have the strength or mobility to physically make an attempt to leave but may still verbally express the desire to leave. If they express the desire to leave but cannot do so because of mobility difficulties, still consider their verbal expression an attempt to leave.
 - Often participants will say that they are trying to leave, so listen closely for such verbalizations.
 - Do not code "yes" if a staff member is trying to remove the resident from the activity.
 - EXAMPLE: A resident says she is bored with exercising, gets up from her chair, and leaves the room.

3. Left activity alone or with staff

A participant leaves an activity if:

- A staff member removes the participant from the activity.
OR
- The participant actually leaves the activity on his or her own.

4. Did the target activity and commented on the activity (constructive engagement)

Constructive engagement occurs if the participant is:

- Using materials related to the target activity:
 - EXAMPLE 1: Playing the piano during a music therapy session
 - EXAMPLE 2: Drawing a picture with a crayon during art therapy
- Holding onto materials related to target activity (but not moving them):
 - Holding is more than just resting one's hands on the materials; it means that the participant is clutching onto the materials.
 - EXAMPLE 1: Holding a bingo chip in one's hand
 - EXAMPLE 2: Holding a maraca without shaking it during a musical performance
- Speaking in response to target activity:
 - EXAMPLE 1: Answering a trivia question
 - EXAMPLE 2: Discussing a story or reminiscing about one's children
- Gesturing in Response to target activity:
 - EXAMPLE 1: Tapping one's foot to music
 - EXAMPLE 2: Clapping hands after a performance
 - EXAMPLE 3: Shaking one's head in agreement with the group leader

5. Listened to and/or watched target activity (passive engagement)

Passive engagement occurs if the participant is:

- Listened to and/or watched target activity:
 - Assume the individual is listening in on or watching the target activity if the participant is looking at the activity coordinator, other participants, or materials related to the target activity.
 - In instances where it is difficult to determine whether the participant is passively participating, give the participant the benefit of the doubt. If the participant is alert and looking in the general direction of the activity, assume he or she is listening in or watching.
 - EXAMPLE 1: Facing the activity coordinator in an alert manner during bingo
 - EXAMPLE 2: Looking in the general direction of the performers during a musical performance

6. Did or attended to things *other than* the target activity (other/self-engagement)

Other engagement occurs if the participant is:

- Using materials *not* related to the target activity
 - EXAMPLE: Painting during a musical performance
 - EXAMPLE: Fumbling through his or her purse during exercise
- Grasping onto materials *not* related to the target activity
 - EXAMPLE: Holding a stuffed animal during bingo
- Speaking in response to something other than the target activity
 - EXAMPLE: Complimenting a nurse on her hairdo during a golf activity
- Gesturing in response to something other than the target activity
 - EXAMPLE: Pointing to a dog during volleyball
- Listening/watching something other than the target activity
 - EXAMPLE: Watching T.V. during a group reminiscing activity

Self-engagement occurs when the participant:

- Attends specifically to his or her body, jewelry, or clothes:
 - EXAMPLE: Playing with the buttons on his or her shirt during bingo
 - EXAMPLE: Rubbing his or her foot during arts and crafts
 - EXAMPLE: Fiddling with the decorative pin on his or her shirt

7. Slept/kept eyes closed/stared into space (nonengagement)

Nonengagement occurs if the participant is:

- Closing eyes
- Sleeping
 - Since “sleeping” is the only exception to the MPES hierarchy, it is important to distinguish sleeping from closing one’s eyes.
 - Look for closed eyes along with deep breaths or snoring. Often a resident’s head will droop forward or the person may actually put his or her head down on the table.
- Staring into space
 - Staring into space can be defined as either completely losing focus on the immediate environment or becoming so caught up in the environment that one stares blankly at an object. This may appear as though the participant is actually looking “through” the object or as if he or she is trying to see something that is miles away. This is usually also accompanied by a lack of changing affect. This particular item is sometimes referred to as “zoning out” or “the thousand yard stare.”
 - EXAMPLE: Staring blankly at the ceiling or the floor and does not seem to be alert

8. Pleasure

Pleasure occurs if the participant is:

- Laughing
- Smiling
 - A participant must be clearly smiling. If you have questions about whether the participant is smiling, do not code the behavior as pleasure. As a general guide, we assume a person is smiling if we see teeth (or gums).
- Expressing pleasure through verbalization
 - EXAMPLE: Saying “This activity is so fun and makes me happy!”

9. Anxiety/sadness

Sadness occurs if the participant is:

- Crying
- Expressing sadness through conversation
 - EXAMPLE: Saying “I am so sad” or “I am depressed”

Anxiety occurs if the participant is:

- Exhibiting an anxious facial expression (e.g., a furrowed brow)
IN COMBINATION WITH
- Anxious behavior
 - Wringing of hands
 - Rocking back and forth repeatedly
 - Repetitive vocalizations (constantly asking “When will I be going home?”)

10a. Helped others

Helping others occurs if:

- The participant is helping another player with something related to the activity.
 - EXAMPLE: Pointing out an answer on another person’s game card
- The participant is helping the leader with something related to the activity.
 - EXAMPLE: Straightening up the pile of bingo cards at the end of the activity

10b. Helped others (frequency)

Frequency is determined by:

- Counting the number of times the participant helps during the observation.
 - If a person offers assistance more than once for the same issue (tells a player twice that they have B18 during bingo), this only counts as one instance of helping. In order to code for more than one instance of helping, the events must be unrelated (helping again once N33 is called).

11. Acted inappropriately

A participant acts inappropriately if:

- He or she behaves aggressively toward another person or object.
 - EXAMPLE: Throwing a game card
 - EXAMPLE: Cursing at another resident
- He or she does something that disrupts the activity.
 - EXAMPLE: Pouring apple juice onto the floor (activity coordinator must stop the activity to attend to that resident)
- He or she does something socially inappropriate.
 - EXAMPLE: Telling a dirty joke during bingo
 - EXAMPLE: Beginning to take off his or her clothing

Observation # _____ Activity ID #: _____ Date: _____

Participant's ID #: _____ Facilitator: _____

Name of activity: _____

ID # of person filling out form: _____

Type of observation: 1 = Baseline 2 = Treatment

Time of day: 1 = A.M. or 2 = P.M. (circle one) Observation length (minutes): _____

1. Participated in target activity (either constructively or passively)

Did he/she take part in the activity?

0 = No (chart engagement on items 6 and 7) 1 = Yes (chart engagement on items 4, 5, 6, and 7)

2. Tried to leave on own (do not include staff who removed the client)

Did he/she try to leave the activity?

0 = No 1 = Yes

3. Left activity on own or with staff

Did he/she actually leave the activity?

0 = No 1 = Yes

Code no more than one "2" for items 4, 5, 6, and 7.**4. Did the target activity and/or commented on the activity.**

How long did he/she participate in the activity by making comments, answering questions, talking about memories, discussing ideas, making gestures in response to the activity, or physically manipulating the materials? (Do not include looking and listening.)

0 = Not at all 1 = Up to half of the observation 2 = More than half of the observation

5. Listened to and/or watched target activity (code after 3 seconds, but do not code if sleeping)How long did the participant remain generally alert and spend time listening to and watching the *target activity*?

0 = Not at all 1 = Up to half of the observation 2 = More than half of the observation

6. Did or attended to things *other than target activity* (code after 3 seconds, but do not code if sleeping)

How long did he/she attend to something beside the target activity? Include listening, watching, commenting, gesturing, talking, or physically manipulating any item not associated with the activity. Include self-engagement activities, such as toe- or finger-tapping, pointless manipulation of clothing or other belongings, etc. If the client is listening to or watching the target activity while manipulating an item not associated with the activity (e.g., a walker, bag, or shirt sleeve), code for listened to/ watched target activity.

0 = Not at all 1 = Up to half of the observation 2 = More than half of the observation

7. Slept/kept eyes closed/stared into space (code after 3 seconds)

How long did the participant sleep or keep his/her eyes closed during the observation?

0 = Not at all 1 = Up to half of the observation 2 = More than half of the observation

Code no more than one "2" for items 8 and 9.

8. Pleasure

How long did he/she express pleasure (laugh or smile) during the observation?

0 = Not at all 1 = Up to half of the observation 2 = More than half of the observation

9. Anxiety/sadness

How long did he/she display anxiety or sadness during the observation? Include obvious displays of sadness through tearfulness, conversation, or clearly observable depressed affect. Anxiety should be coded for items such as hand-wringing, rocking, anxious vocalizations, or other psychomotor activity if seen in combination with an anxious facial display.

0 = Not at all 1 = Up to half of the observation 2 = More than half of the observation

10. Helped others

How long did he/she help another player during the observation? Include behaviors such as pointing out answers on another player's card, assisting with the covering mechanism of the card-holder, giving clues to another player ("you have the word MOON"), helping the player read his/her card, etc.

0 = Not at all 1 = Up to half of the observation 2 = More than half of the observation

Frequency: 0 = 0 1 = 1-2 2 = 3+

11. Acted inappropriately

How long did he/she say or do something inappropriate, disruptive, or aggressive during the observation?

0 = Not at all 1 = Up to half of the observation 2 = More than half of the observation