

COGTALE

Cognition-Oriented Treatments Article Library & Evaluation

Data extraction and coding manual

Version 2. March 2018

Commented [AB1]: The contents of this manual were originally created with the excel spreadsheet version of the data entry form as the reference. However, we have now moved to the online dynamic version programmed in CogTale, so the manual and the CogTale data entry form need to be aligned. However, we need to verify that questions that have been added to the spreadsheet but are not in the manual or CogTale are added in both places (e.g., Randomization method).

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Background

CogTale is a comprehensive repository and database of methodological features and results from articles describing cognition-oriented treatments (COTs) in the older adult population. It is anticipated that data contained in this database will be used to answer specific research questions, and to inform the development of guidelines for researchers conducting trials of COTs. This Coders manual provides guidance to those involved in entering trial data into the database, so that data is entered in a consistent and accurate way. Reading an article for the purpose of data entry into the database is different from reading an article for its content, as the focus is on the design and methodology, as well as the reporting of the results. The Introduction and Discussion sections of an article generally would not need to be read in order to enter the trial data into the database (although there might be a few exceptions to this rule – to be noted in the relevant variable)

Database variables and categories

The electronic data entry form contains over 100 questions 9 data entry categories. These categories are:

1. Trials: Target populations (Pop)
2. Setting & Design (SD)
3. Outcomes (Out)
4. Measures & Intervals (MI)
5. Interventions I: Nature and dose (Int I)
6. Interventions II: Targets (Int II)
7. Intervention III: Components and features (Int III)
8. Analyses (An)
9. Results (? Res)

In the following sections, the variables included in each category will be specified. For each variable, the following information is provided:

1. Name
2. Type: Simple vs. complex inference
3. When to code: Always vs. IF (condition)
4. Tips for finding info
5. Definition
6. Vocabulary name (Response alternatives)
7. Comments and clarifications

Trials: Target populations

Population 1

Type	Simple	
When to Code	Always	
Definition	What is the target population	
Tips for finding	This information typically found in the abstract. You can search the 'pdf' using the string 'XXXX'	
Comments	Options not always mutually exclusive, e.g., the population can be defined as amnesic MCI AND criteria are specified. In the web-based version, all relevant descriptors of the population could be selected.	
Response alternatives	1. Cognitively healthy 2. Subjective cognitive decline 3. No Dementia 4. MCI-criteria specified 5. MCI-criteria not specified 6. Amnesic MCI 7. Non-amnesic MCI 8. AD 9. FTD	10. DLB 11. Dementia 12. Mixed dementia 13. Depression 14. Anxiety 15. Bi-polar 16. TBI in older adults 17. Other 18. N/A 19. Not specified

Commented [AB2]: Need to decide whether, in relation to variables that may or may not be of relevance (e.g., Population 2,3 and so on), we want to create the option of duplicating a variable on web-form, or to include the additional variables and ask coders to select the 'N/A' option when the variable isn't relevant

Commented [AB3]: Need to decide what is the best approach in situations like this, i.e., when response alternatives aren't necessarily mutually-exclusive. Should we:

1. Leave as is, and guide coders to make the most appropriate classification?
2. Reduce the number of response alternatives so that they are broad enough to include several sub-categories (i.e., lose some of the finer detail)
3. Have the option of duplicating a variable, so that additional identifiers can be used (e.g., possibly by clicking a button that would create an identical variable)?
4. Include an open text field in which coders can add an identifier (e.g., Subjective cognitive decline, to a population defined as 'no dementia').
5. Use checkbox response style, so that multiple descriptors can be selected for a population

Population 1- stage/severity

Type	Simple	
When to Code	IF Population 1 ≠ 'Not specified', 'N/A'	
Definition	What is the severity or stage of the target population	
Comments		
Response alternatives	1. N/A 2. Not specified 3. Pre-clinical 4. Prodromal 5. Early MCI 6. Late MCI 7. Early stage AD 8. Late stage AD 9. Mild dementia	10. Moderate dementia 11. Severe dementia 12. Sub-clinical 13. Chronic 14. Acute 15. Other (free text) 16. Not specified 17. N/A

Population 1- age of onset

Type	Simple	
When to Code	IF Population 1 ≠ 'Not specified', 'N/A'	
Definition	Were participants classified as early or late onset	
Comments		
Response alternatives	1. N/A 2. Not Specified 3. Early onset (<65) 4. Late onset (>65)	

Setting & Design

Trial Type

Type	Simple	
When to Code	Always	
Definition	What type of trial was carried out (e.g., randomised controlled trial)	
Comments	Sub-categories of RCTs and non-RCTs may be specified in the text. In this variable, the only distinction is between single vs. group trials, in which participants either were or were not allocated to an intervention condition randomly	
Response alternatives	<ol style="list-style-type: none"> 1. Randomised controlled-trial 2. Non-randomised trial 	<ol style="list-style-type: none"> 3. Single-case (with randomization of phases) 4. Single case (without randomization of phases) 5. Other (specify)

Total N

Type	Simple	
When to Code	Always	
Definition	Number of participants recruited and who underwent a baseline assessment (across conditions)	
Comments	The total N refers to the number of participants who were <u>who were allocated to a group/condition, not to the total that underwent a baseline assessment</u> . This should generally be the same as the 'Intention to Treat' sample.	
Response alternatives	Numerical	

Basis for target sample size

Type	Simple	
When to Code	Always	
Definition	On what basis was the target sample size determined	
Comments	Unspecified power analysis refers to a general statement regarding the use of power analyses with no further details. Single case studies should be N/A	
Response alternatives	<ol style="list-style-type: none"> 1. N/A 2. Not specified 3. Power analysis (specified) 4. Power analysis (unspecified) 	<ol style="list-style-type: none"> 5. Convenience 6. Other (specify)

Commented [SEP4]: Suggested coder B? (already listed as coder B on cogtale site)

Eligibility criteria specified

Type	Simple	
When to Code	Always	
Definition	Were inclusion and exclusion criteria for trial participation specified	
Comments	Where inclusion/exclusion criteria are insufficiently clear (e.g., 'older adults' without specifying age), or lacking in detail (e.g., 'neurological conditions' without specifying which), select- 'yes-incompletely'.	
Response alternatives	<ol style="list-style-type: none"> 1. N/A 2. Yes- fully described 	<ol style="list-style-type: none"> 3. Yes-incompletely described 4. Not specified

Randomisation type

Type	Simple	
When to Code	Always	
Definition	What type of randomisation sequence was used?	
Comments		
Response alternatives	1. N/A 2. Not specified 3. Simple 4. Sequential	5. Block 6. Stratified 7. By site 8. Other (specify)

Allocation concealed

Type	Simple	
When to Code	Always	
Definition	Was the randomisation sequence concealed from researchers following allocation and prior to intervention commencing?	
Comments	To rate this variable as 'yes' or 'no', this needs to be explicitly stated in the text	
Response alternatives	1. N/A 2. Not specified	3. Yes 4. No

Masking

Type	Simple	
When to Code	Always	
Definition	Which group, if any, was blinded/masked in the study?	
Comments		
Response alternatives	1. N/A 2. Not specified 3. Assessors only 4. Intervention therapists/trainers only 5. Participants only	6. Assessors+participants 7. Assessors+trainers 8. Participants+trainers 9. All three groups 10. All three groups+data analysts

No. control conditions

Type	Simple	
When to Code	Always	
Definition	How many comparison conditions were used?	
Comments	Include all control conditions	
Response alternatives	Numerical	

Passive control

Type	Simple	
When to Code	Always	
Definition	Was a passive control condition included?	
Comments		
Response alternatives	1. N/A 2. Yes 3. No	

Active control

Type	Simple	
When to Code	Always	
Definition	Was an active control condition included?	
Comments		
Response alternatives	1. N/A 2. Yes 3. No	

Trial registration

Type	Simple	
When to Code	Always	
Definition	Was the trial registered in a public trial registry (e.g., clinicalTrials.Gov)	
Comments		
Response alternatives	1. N/A 2. Yes 3. No	

Outcomes

Primary outcome identified

Type	Simple	
When to Code	Always	
Definition	Primary outcome for the study are explicitly defined by the authors in the method section	
Comments	The main/most important outcome in the study. This needs to be stated explicitly by the authors in the method section (ie., not in the results or discussion sections). When a single measure (e.g., RAVLT), or a test battery score (e.g., RBANS) are defined as the main outcome, without clear reference to the construct or ability, select "yes- measure defined as outcome)	
Response alternatives	1. Yes 2. No	3. Yes - Measure defined as outcome 4. N/A

Secondary outcome(s) identified

Type	Simple	
When to Code	Always	
Definition	Secondary outcome(s) for the study are explicitly defined by the authors in the method section.	
Comments	This needs to be stated explicitly by the authors in the method section (ie., not in the results or discussion sections). When a single measure (e.g., RAVLT), or a test battery score (e.g., RBANS) are defined as the secondary outcome, without clear reference to the construct or ability, select "yes- measure defined as outcome)	
Response alternatives	1. Yes 2. No	3. Yes - Measure defined as outcome 4. N/A

No. Primary outcomes

Type	Simple	
When to Code	IF at least one primary outcome was defined	
Definition	Number of primary outcomes defined by the authors	
Comments		
Response alternatives	Numerical	

No. Secondary outcomes

Type	Simple	
When to Code	IF at least one secondary outcome was defined	
Definition	Number of secondary outcomes defined by the authors	
Comments		
Response alternatives	Numerical	

Near vs. far outcomes specified

Type	Simple	
When to Code	Always	
Definition	Were outcomes explicitly specified as being near vs. far, reflecting the extent to which a given outcome reflected the focus of training (Similar to proximal vs. distal)	
Comments	For this variable proximal vs. distal will be the same as near vs. far. Outcomes can be described in this way anywhere in the article, not just in the method.	

Commented [SEP5]: Coder B?

Response alternatives	1. Yes	3. N/A
	2. No	

Untrained cognitive outcomes

Type	Simple	
When to Code	Always	
Definition	Cognitive outcomes assessed using untrained measures	
Comments	Were the outcomes assessed using different material/tests than the ones used for the training itself,	
Response alternatives	1. Yes	3. Not specified
	2. No	4. N/A

Commented [SEP6]: Coder B?

Mood outcomes

Type	Simple	
When to Code	Always	
Definition	Outcomes related to mood (e.g., symptoms of depression, anxiety, or apathy)	
Comments	Scales or questionnaires related to the participants' mood – either self or informant-reported	
Response alternatives	1. Yes	3. Not specified
	2. No	4. N/A

Wellbeing outcomes

Type	Simple	
When to Code	Always	
Definition	Outcomes related to wellbeing	
Comments	Scales or questionnaires related to the participants' wellbeing – either self or informant-reported	
Response alternatives	1. Yes	3. Not specified
	2. No	4. N/A

Functional outcomes

Type	Simple	
When to Code	Always	
Definition	Outcomes related to functionality & activities of daily living (ADL)	
Comments	Scales or questionnaires related to the participants' functionality – either self or informant-reported	
Response alternatives	1. Yes	3. Not specified
	2. No	4. N/A

Metacognition outcomes

Type	Simple	
When to Code	Always	
Definition	Outcomes related to metacognition ("cognition about cognition")	
Comments	Scales or questionnaires related to the participants' perception of their own cognitive functioning (e.g., satisfaction with their memory functioning)	
Response alternatives	1. Yes	3. Not specified
	2. No	4. N/A

Biomarkers outcomes

Type	Simple	
When to Code	Always	
Definition	Outcomes related to the measurement of any physiological marker.	

Comments	Biomarker outcomes may be measured by neuroimaging (eg. MRI, Amyloid PET, FDG-PET, and others), laboratory tests (eg. Plasma proteins, CSF), lumbar puncture, EEG, etc.	
Response alternatives	1. Yes 2. No	3. Not specified 4. N/A

Clinical progressions outcomes

Type	Simple	
When to Code	Always	
Definition	Outcomes related to any accepted measures of global clinical progression (e.g., CDR)	
Comments	This category includes known clinical staging instruments, such as the Dementia Rating Scale (CDR), or the Global Deterioration Scale (GDS). Screening instruments that provide a global score for cognition only (e.g., MMSE, MDRS) should not be coded here but under global cognitive outcomes	
Response alternatives	1. Yes 2. No	3. Not specified 4. N/A

Caregiver outcomes

Type	Simple	
When to Code	Always	
Definition	Outcomes related to the wellbeing, emotional status, or caregiving burden as experienced by caregivers	
Comments	Scales or questionnaires related to the psychological wellbeing, emotional state, caregiving burden of the caregiver – this can be self reported or clinician-evaluated	
Response alternatives	1. Yes 2. No	3. Not specified 4. N/A

Measure of healthcare use reported

Type	Simple	
When to Code	Always	
Definition	Outcome related to healthcare use (eg. number of Drs. visits)	
Comments		
Response alternatives	1. Yes 2. No	3. Not specified 4. N/A

Participant expectation reported

Type	Simple	
When to Code	Always	
Definition	Outcome related to participant expectations from the intervention.	
Comments	Scales or questionnaires related to the participant's expectations - self reported.	
Response alternatives	1. Yes 2. No	3. Not specified 4. N/A

Measure of practice effects

Type	Simple	
When to Code	Always	
Definition	Outcome related to the measurement of practice effects	
Comments	This should be coded in cases where a measure of practice (changes in performance that are thought to be the result of repeated exposure to a test, rather than the results of training) is calculated and used as an outcome.	
Response alternatives	1. Yes 2. No	3. Not specified 4. N/A

Commented [SEP7]: Coder B?

Conceptual model / rationale used

Type	Simple	
When to Code	Always	
Definition	The researchers explicitly defined the rationale or model used in choosing the outcomes.	
Comments	Do researchers just list outcomes or do they select the outcomes on the basis of a conceptual model (eg., targeting working memory because it's critical for independence). Select 'implied' if the authors do not explicitly refer to a model or provide a clear rationale, but this seems to be implied from the information provided in the introduction (e.g., discussion of deficits in working memory)	
Response alternatives	1. Yes 2. Implied	3. No 4. N/A

Commented [SEP8]: Coder B?

Measures & intervals

Total no. of measures given

Type	Simple	
When to Code		
Definition		
Comments		
Response alternatives	1.	2.

Commented [SEP9]: This section has been removed from staging website (Assessments section?)

Cognitive 1

Type	Simple	
When to Code		
Definition		
Comments		
Response alternatives	1.	2.

Cognitive 1 intervals

Type	Simple	
When to Code		
Definition		
Comments		
Response alternatives	1.	2.

Cognitive 2 – cognitive n

Type	Simple	
When to Code		
Definition		
Comments		
Response alternatives	1.	2.

Cognitive 2 – cognitive n intervals

Type	Simple	
When to Code		
Definition		
Comments		

Response alternatives	1.	2.
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Cognitive composites?

Type	Simple	
When to Code		
Definition		
Comments		
Response alternatives	1.	2.

Alternate forms used?

Type	Simple	
When to Code		
Definition		
Comments		
Response alternatives	1.	2.

Mood and Wellbeing 1

Type	Simple	
When to Code		
Definition		
Comments		
Response alternatives	1.	2.

Mood & wellbeing intervals

Type	Simple	
When to Code		
Definition		
Comments		
Response alternatives	1.	2.

Functional 1

Type	Simple	
When to Code		
Definition		
Comments		
Response alternatives	3.	4.

Functional 1 intervals

Type	Simple	
When to Code		
Definition		
Comments		
Response alternatives	3.	4.

Meta-cognition 1

Type	Simple	
When to Code		

Definition		
Comments		
Response alternatives	5.	6.

Meta-cognition 1 intervals

Type	Simple	
When to Code		
Definition		
Comments		
Response alternatives	5.	6.

Biomarker 1

Type	Simple	
When to Code		
Definition		
Comments		
Response alternatives	7.	8.

Biomarker 1 intervals

Type	Simple	
When to Code		
Definition		
Comments		
Response alternatives	7.	8.

Disease progression 1

Type	Simple	
When to Code		
Definition		
Comments		
Response alternatives	9.	10.

Disease progression 1 intervals

Type	Simple	
When to Code		
Definition		
Comments		
Response alternatives	9.	10.

Caregiver 1

Type	Simple	
When to Code		
Definition		
Comments		
Response alternatives	11.	12.

Caregiver 1 intervals

Type	Simple	
When to Code		
Definition		
Comments		
Response alternatives	11.	12.

Interventions I: Nature and dose (Int I)

Experimental condition described as

Type	Simple	
When to Code	Always	
Definition	How the intervention is defined/named by the authors	
Comments	There are many ways to name/define cognitive intervention, for example: cognitive training, cognitive stimulation, cognitive rehabilitation, memory training, and so on,	
Response alternatives	<ol style="list-style-type: none"> 1. Brain training 2. Cognitive Enhancement 3. Cognitive Intervention 4. Cognitive Rehabilitation 5. Cognitive Stimulation 6. Cognitive Training 7. Computerized Cognitive Training 	<ol style="list-style-type: none"> 8. Memory Enhancement 9. Memory Intervention 10. Memory Rehabilitation 11. Memory Stimulation 12. Memory Training 13. Mnemonic Strategy Training 14. Other (specify)

Passive control condition described as

Type	Simple	
When to Code	When there is an inactive/passive or treatment as usual control condition	
Definition	How the passive control condition is defined	
Comments	A condition is considered 'passive control' when participants do not receive another active intervention. This includes treatment as usual conditions (including pharmacological treatments, as long as no new drug therapy was introduced as part of the trial)	
Response alternatives	<ol style="list-style-type: none"> 1. Waitlist Control 2. No-treatment Control 3. No-contact Control 4. Treatment as Usual 	<ol style="list-style-type: none"> 5. Control Group 6. Other (specify)

Active control condition described as

Type	Simple	
When to Code	When there is an active control condition	
Definition	How the active control condition is defined	
Comments	A condition is considered 'active control' when participants receive any other form of non-pharmacological intervention but which the authors do not regard as an experimental. The designation of a condition as 'active control' is specific to the relevant study, as the same intervention may be specified as an experimental intervention in another study. (Examples include, but are not limited to psychoeducation, matched exposure condition, non-adaptive training, recreational activity, and others).	
Response alternatives	<ol style="list-style-type: none"> 1. Active Control Group 2. Control Group 3. Placebo Control 	<ol style="list-style-type: none"> 4. Other (please specify)

Was a model used in developing the intervention

Type	Simple	
When to Code	Always	
Definition	Did the authors draw on a conceptual model in developing the intervention (including choice of target domains)?	
Comments	To answer 'yes- clearly articulated' to this question, the authors should have made a clear reference to a specific theoretical background or treatment model. If only loosely implicated or indirect (e.g., the intervention primarily targets memory, in a sample of MCI patients), select 'implied or indirect'.	
Response alternatives	1. Yes – clearly articulated 2. Implied or indirect 3. Not apparent	4. Other (specify)

Commented [SEP10]: Coder B?

Delivery Setting

Type	Simple	
When to Code	Always	
Definition	What was the delivery setting for the experimental condition?	
Comments		
Response alternatives	1. Home 2. Clinic/Research Centre 3. Residential Care	4. Community 5. Classroom 6. Mixed 7. Other (specify)

Delivery format

Type	Simple	
When to Code	Always	
Definition	Was the experimental intervention delivered in a one-on-one or group format	
Comments		
Response alternatives	1. Individual 2. Individual + carer or support person 3. Group	4. Mixed delivery 5. Other (please specify)

Same setting and format in all groups

Type	Simple	
When to Code	When there is an active control condition	
Definition	Were the experimental and active control condition(s) delivered in the same setting & format	
Comments		
Response alternatives	1. Yes 2. Not clear 3. No	4. N/A

Dose: frequency per week

Type	Simple	
When to Code	Always	
Definition	How many intervention sessions per week were prescribed	
Comments		
Response alternatives	1. 1 2. 2 3. 3 4. 4 5. 5 6. 6 7. 7 8. N/A	

Dose: session duration (minutes)

Type	Simple	
When to Code	If specified	
Definition	What was the specified session duration (in minutes)?	
Comments		
Response alternatives	Numerical	

Dose: total weeks (minimum)

Type	Simple	
When to Code	Always	
Definition	The minimum number of weeks during which the intervention was delivered	
Comments		
Response alternatives	Numerical	

Dose: total weeks (maximum)

Type	Simple	
When to Code	Always	
Definition	The maximum number of weeks during which the intervention was delivered	
Comments		
Response alternatives	Numerical	

Dose: total intervention time (minutes)

Type	Simple	
When to Code	When this can be calculated	
Definition	Intervention's total time	
Comments		
Response alternatives	Numerical	

What was the primary completion criterion?

Type	Simple	
When to Code	Always	
Definition	What was the primary criterion for intervention completion?	
Comments		
Response alternatives	1. No. weeks trained 2. % performance gained 3. % performance gain OR sessions completed	4. Sessions completed 5. Other (please specify) 6. Not specified 7. N/A

Was adherence defined?

Type	Simple	
When to Code	Always	
Definition	Was adherence to the intervention defined?	
Comments	Have the authors provided in the method a statement regarding their definition of adherence in the context of the given trial?	
Response alternatives	1. Yes 2. No	3. N/A

Was adherence reported?

Type	Simple	
When to Code	Always	
Definition	Was some measure of intervention adherence reported by the authors?	
Comments	This could include the % of participants who completed a specified amount or amounts of the intervention, or the % of participants who discontinued training	
Response alternatives	1. Yes- for each group 2. Yes- for the combined sample	3. No 4. N/A

Was intervention fidelity considered in the design and implementation of the trial?

Type	Simple	
When to Code	Always	
Definition	Have the authors considered issues relevant to the intervention fidelity in the study design/methods?	
Comments	To code 'yes', authors should specify what measures, if any, were taken to preserve the fidelity of intervention delivery. This may include training, evaluation, and monitoring of those delivering the intervention, certifying the trainers, and other measures put in place to ensure that an intervention was delivered as planned.	
Response alternatives	1. Yes	2. No 3. Not specified

Commented [SEP11]: Coder B?

Participants trained per protocol? (NEW 15/9/17)

Type	Simple	
When to Code	Always	
Definition	Was the intervention delivered to each participant same as the condition to which they were allocated?	
Comments	This should be coded as a 'yes' if the authors explicitly state that all participants received the intervention to which they were allocated (this includes a measure of dose). If it is clear that some participants did not comply with the intervention as prescribed (e.g., did not meet the definition of adherence or received less than 75% of the total prescribed intervention were this was not defined), then this should be coded as 'no' rather than 'not specified'	
Response alternatives	1. Definitely yes 2. Probably yes	3. Probably no 4. Definitely no

Commented [SEP12]: Coder B?

Was the intervention delivered as intended?

Type	Simple	
When to Code	Always	
Definition	Was the intervention delivered as intended or planned in the protocol?	
Comments	This should be coded as 'yes' if the authors clearly state that the delivery of the intervention was manualised and that no changes to the delivery protocol were made. If this is not stated, code as 'not specified'	
Response alternatives	1. Yes	2. No 3. Not specified

Intervention groups were comparable at baseline?

Type	Simple	
When to Code	Always	
Definition	Were the intervention conditions comparable at baseline?	
Comments	The authors need to mention this aspect specifically or provide statistical data.	
Response alternatives	1. Yes	2. No 3. Not specified/unclear

Were discontinuation-retention rates reported?

Type	Simple	
When to Code	Always	
Definition	Did the authors report the <u>discontinuation-retention</u> rates?	
Comments	To code as 'yes' the authors should provide some measure of the number or percentage of participants in each condition that were <u>lost-at-retained</u> each follow-up. If data provided only for some conditions but not others, or for only some follow-up assessments but not others, code as 'incomplete'	
Response alternatives	1. Yes 2. Incomplete	3. No 4. N/A

Percentage of retained participants from the experimental condition at the post-intervention assessment

Type	Simple	
When to Code	When retention rates are provided	
Definition	The percentage of participants from the intervention condition who were retained in the study by the post-intervention assessment	
Comments	To code this, study authors need to either report the total number or percentage of participants that were retained by the post-intervention assessment, from those who were assessed at baseline	
Response alternatives	Numerical	

Commented [SEP13]: This item is included in the question set online- has been added to manual for consistency

Percentage of retained participants from the control condition at the post-intervention assessment

Type	Simple	
When to Code	When retention rates are provided	
Definition	The percentage of participants from the control condition who were retained in the study by the post-intervention assessment	
Comments	To code this, study authors need to either report the total number or percentage of participants that were retained by the post-intervention assessment, from those who were assessed at baseline	
Response alternatives	Numerical	

Commented [SEP14]: This item is included in the question set online- has been added to manual for consistency

Percentage of ~~discontinued-retained~~ participants from the experimental condition ~~condition~~ by the final follow-up

Type	Simple	
When to Code	When discontinuation retention rates are provided	
Definition	The percentage of participants from the intervention condition who dropped-out were retained in-of the study by the final assessment	
Comments	To code this, study authors need to either report the total number or percentage of participants that were dropped-out retained by the final assessment, from those who were assessed at baseline	
Response alternatives	Numerical	

Commented [SEP15]: Question set online refers to retention as opposed to discontinuation/drop-out rates. These questions have been edited here for consistency.

Percentage of ~~discontinued-retained~~ participants from the control condition by the final follow-up

Type	Simple	
When to Code	When discontinuation retention rates are provided	
Definition	The percentage of participants from the control condition who dropped-out were retained in-of the study by the final assessment	
Comments	To code this, study authors need to either report the total number or percentage of participants that were dropped-out retained by the final assessment, from those who were assessed at baseline. If more than one control group was included in the trial, code this for the group most-different (i.e., passive) from the intervention	
Response alternatives	Numerical	

Commented [SEP16]: Question set online refers to retention as opposed to discontinuation/drop-out rates. These questions have been edited here for consistency.

Interventions II: Targets (Int II)

Primary Cognitive Target

Type	Simple/single choice	
When to Code	Always	
Definition	Primary cognitive target in the intervention (eg. episodic memory, working memory, and others)	
Comments	If the authors target multiple cognitive domains and don't specify one primary cognitive domain as a target, select multi-domain/general cognition	
Response alternatives	1. Memory 2. Working Memory 3. Attention 4. Processing Speed 5. Language 6. Executive Functions	7. Orientation 8. Multi-domain/general cognition 9. Not Specified 10. N/A- no cognitive target 11. Other (specify)

Commented [AB17]: Note that further to your advice, I broke this question into two – so that the first part deals with cognitive targets more broadly, and the second part (below) allows to specify a sub-cognitive domain. I have changed the options accordingly. We can discuss if further categories should be added/removed at the broad and specific levels, whether there is too much overlap, etc

Primary Cognitive Target – sub domain specification

Type	Simple/multi-choice	
When to Code	When the primary cognitive target selected was 1-6 in previous question	
Definition	What (if any) was the specified sub-domain(s) for the primary cognitive target	
Comments	The displayed menu options will be determined on the basis of the response to the previous question (the relevant superordinate response is shown in brackets)	
Response alternatives	1. Episodic Memory (1) 2. Autobiographical memory (1) 3. Semantic memory (1) 4. Prospective Memory (1) 5. Paired associations (1) 6. Other memory (1) 7. Dual task (2) 8. Other working memory (2) 9. Sustained attention (3) 10. Divided attention (3) 11. Attention switching (3) 12. Other attention (3) 13. Reaction time (4) 14. Other processing speed (4) 15. Naming (5)	16. Verbal Fluency (5) 17. Comprehension (5) 18. Other language (5) 19. Reasoning (6) 20. Problem solving (6) 21. Flexibility/shifting (6) 22. Inhibition (6) 23. Monitoring (6) 24. Estimation (6) 25. Other executive (6) 26. Orientation to time (7) 27. Orientation to person (7) 28. Orientation to place (7) 29. Other orientation (7) 30. Not specified

Commented [AB18]: Note that I have added this as a further qualifier – this should be added to all variables

Commented [SEP19]: This list does not match the one currently available in question set online. Response alternatives missing from online question set are highlighted in yellow

Other Cognitive Targets

Type	Simple/multi-choice	
When to Code	When there are other/secondary cognitive targets in addition to the one identified as the primary target	
Definition	Additional or secondary cognitive target(s) of the intervention.	
Comments	The selected cognitive target(s) need to be different from the primary cognitive target	
Response alternatives	1. Memory 2. Working Memory 3. Attention	7. Orientation 8. Multi-domain/general cognition

	4. Processing Speed 5. Language 6. Executive Functions	9. Not Specified 10. N/A- no cognitive target 11. Other (specify)
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Other Cognitive Targets – sub domain specification

Type	Simple/multi-choice	
When to Code	When the additional cognitive target selected was 1-6 in previous question	
Definition	What (if any) was the specified sub-domain(s) for the additional cognitive target(s)	
Comments	The displayed menu options will be determined on the basis of the response to the previous question (the relevant superordinate response is shown in brackets)	
Response alternatives	1. Episodic Memory (1) 2. Autobiographical memory (1) 3. Semantic memory (1) 4. Prospective Memory (1) 5. Paired associations (1) 6. Other memory (1) 7. Dual task (2) 8. Other working memory (2) 9. Sustained attention (3) 10. Divided attention (3) 11. Attention switching (3) 12. Other attention (3) 13. Reaction time (4) 14. Other processing speed (4) 15. Naming (5)	16. Fluency (5) 17. Comprehension (5) 18. Other language (5) 19. Reasoning (6) 20. Problem solving (6) 21. Flexibility/shifting (6) 22. Inhibition (6) 23. Monitoring (6) 24. Estimation (6) 25. Other executive (6) 26. Orientation to time (7) 27. Orientation to person (7) 28. Orientation to place (7) 29. Other orientation (7) 30. Not specified

Commented [SEP20]: See comment above re: primary cognitive target specifications

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Commented [SEP21]: Cognitive target 3 and cognitive target 4 are listed as questions on the online question set- not sure if this is in error, or if these questions need to be added to this manual also

Functional domain target 1

Type	Simple/single choice	
When to Code	When a functional target was specified	
Definition	Which of the following functional domains was directly targeted in the intervention	
Comments	If study authors do not explicitly classify a target functional activity as belonging to one of the functional domains below, select the most appropriate domain from this list	
Response alternatives	1. Basic Activities of Daily Living (ADLs) 2. Home-based Instrumental ADLs	3. Community-based Instrumental ADLs

Commented [AB22]: Sharon, note that I have made changes to this section, and divided it to a set of hierarchical questions like I did with the cognitive targets – moving from the broad ADL domains (personal, home-based instrumental, and community-based instrumental), to specific examples of activities

Specific functional activities 1

Type	Simple/multi-choice
When to Code	When there is an ADL target
Definition	Which of the following specific ADLs were directly targeted in the intervention
Comments	The displayed menu options will be determined on

	the basis of the response to the previous question (the relevant superordinate response is shown in brackets)	
Response alternatives	1. Dressing (1) 2. Showering/bathing (1) 3. Toileting (1) 4. Mouth Care (1) 5. Grooming (1) 6. Transferring to/from bed/chair (1) 7. Walking (1) 8. Climbing stairs (1) 9. Eating (1) 10. Other basic ADL (specify) (1) 11. Cooking (2) 12. Managing medications (2)	13. Using the phone (2) 14. Technology use (2) 15. Doing the laundry (2) 16. Doing housework (2) 17. Other home-based ADL (specify) (2) 18. Shopping (3) 19. Transport use (3) 20. Financial management (3) 21. Errands (3) 22. Other community-based ADLs (specify) (3)

Other functional domains

Type	Simple	
When to Code	When an additional ADL domain was targeted in the intervention	
Definition	Which of the following additional functional domains was directly targeted in the intervention?	
Comments	Usually these targets are related to the outcomes related to ADL / functionality	
Response alternatives	4. Basic Activities of Daily Living (ADLs) 1. Home-based Instrumental ADLs	5. Community-based Instrumental ADLs 2.

Other specific functional activities

Type	Simple/multi-choice	
When to Code	When there is an additional ADL target	
Definition	Which of the following specific ADLs were also targeted in the intervention	
Comments	The displayed menu options will be determined on the basis of the response to the previous question (the relevant superordinate response is shown in brackets)	
Response alternatives	1. Dressing (1) 2. Showering/bathing (1) 3. Toileting (1) 4. Mouth Care (1) 5. Grooming (1) 6. Transferring to/from bed/chair (1) 7. Walking (1) 8. Climbing stairs (1) 9. Eating (1) 10. Other basic ADL (specify) (1) 11. Cooking (2) 12. Managing medications (2)	13. Using the phone (2) 14. Technology use (2) 15. Doing the laundry (2) 16. Doing housework (2) 17. Other home-based ADL (specify) (2) 18. Shopping (3) 19. Transport use (3) 20. Financial management (3) 21. Errands (3) 22. Other community-based ADLs (specify) (3)

Intervention III: Components and features (Int III)

Introduction

Write a short introduction to this section (add for other sections too)

Experimental condition

Practice/exercise

Type	Simple/multi-choice	
When to Code	Always	
Definition	What is the practice/exercise?	
Comments		
Response alternatives	1. Executive functions 2. Language 3. Relaxation 4. Multiple targets 5. No practice 6. Attention	7. N/A 8. Speed 9. Memory

Commented [SEP23]: This is listed as the first question in the exp intervention question set online- has been included here for consistency. Is possibly a duplicate of 'focus of practice/exercise' question?

Individualization

Type	Simple	
When to Code	Always	
Definition	Was the intervention individualized?	
Comments	If the intervention involved all participants doing the same activity (e.g., reminiscing) but with some personalised content (e.g., personal autobiographical memories), this should be coded as 'yes-partially'. In fully individualized interventions, all activities that form the intervention are determined on the basis of individualized goals, needs, etc.	
Response alternatives	1. Yes –fully 2. Yes- partially	3. No 4. Not specified

Commented [SEP24]: Coder B?

Focus of practice/exercise

Type	Simple/multi-choice	
When to Code	When when interventions were not fully individualized	
Definition	What was the focus of the practice or exercise during the intervention (tick all that apply)?	
Comments		
Response alternatives	1. Processing speed/reaction time 2. Orientation 3. Attention 4. Working memory 5. Learning & memory	6. Language 7. Executive functions 8. Relaxation 9. Other (specify) 10. N/A

Type of practice

Type	Simple/multi-choice	
When to Code	Always	
Definition	What was type of activities or tasks did the intervention involve?	
Comments	Sandarized tasks usually have relatively clear performance indicators that can be compared meaningfully across participants. Classic games can involve board,card, or computer games that may lack the	

	measurement precision and/or not be standardized in relation to larger populations.	
Response alternatives	1. Standardized tasks 2. Classic games 3. Daily activities	4. Pleasurable activities 5. Other (specify) 6. N/A

Activity/task platform

Type	Simple	
When to Code	Always	
Definition	What was the primary platform for delivery of tasks or activities?	
Comments	This refers to the primary platform in which the main activities in the intervention were performed.	
Response alternatives	1. Social setting 2. Pen & paper 3. Computer-based	4. Virtual reality- non-immersed 5. Virtual reality- immersed 6. Augmented reality 7. Other (specify)

Program used

Type	Simple	
When to Code	Always	
Definition	What program was used in the intervention?	
Comments		
Response alternatives	1. No program 2. In house/lab-built 3. Lumosity 4. Posit Science 5. CogniFit 6. Attention Workout	7. Memory Works 8. Mind Sparkle 9. NeuroNation 10. Fit Brains 11. Learning Rx 12. Other (specify)

Strategy training

Type	Simple/single-choice	
When to Code	Always	
Definition	Did the intervention include training/practice in strategy use	
Comments	Select 'N/A' if the intervention did not focus on improving performance on any cognitive or functional task.	
Response alternatives	1. Yes- single strategy 2. Yes- multiple strategies	3. No 4. N/A

Trained strategies

Type	Simple/multi-choice	
When to Code	When one of the 'yes' responses in relation to the strategy use question were selected.	
Definition	Which of the following strategies were taught and practiced during the intervention	
Comments		
Response alternatives	1. Errorless learning 2. Spaced retrieval	4. Method of Loci 5. Attentional priority setting

	3. Vanishing cues	6. Chunking 7. Other (specify)
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Difficulty level

Type	Simple/single-choice	
When to Code	Always	
Definition	Which of the following methods to determine level of task difficulty was primarily used?	
Comments		
Response alternatives	1. Performance-based 2. Time-based 3. Fixed difficulty	4. Other (specify) 5. Not specified 6. N/A

Psycho-education

Type	Simple/ single-choice	
When to Code	Always	
Definition	Did the intervention include some formal psychoeducational materials or activities (pamphlets, discussions, videos, etc)?	
Comments		
Response alternatives	1. Yes- with evaluation 2. Yes- no evaluation	3. No 4. Not specified

Goal setting

Type	Simple/ single-choice	
When to Code	Always	
Definition	Did the intervention incorporate goal setting	
Comments		
Response alternatives	1. Yes – standardized 2. Yes- individualized	3. No 4. Not specified

Barrier identification

Type	Simple	
When to Code	Always	
Definition	Have potential barriers to intervention adherence been identified by participants	
Comments		
Response alternatives	1. Yes- with problem solving 2. Yes- without problem solving	3. No 4. Not specified

Self-monitoring

Type	Simple	
When to Code		
Definition	Did the intervention provide a means for participants to monitor their own progress/performance <u>during the intervention period</u> (for example by seeing a score)?	
Comments		
Response alternatives	1. Yes	2. No 3. Not specified

Experimenter monitoring

Type	Simple	
When to Code		
Definition	Has participants' performance been monitored in an ongoing basis by the experimenters/therapists during the intervention?	
Comments		
Response alternatives	1. Yes- face to face 2. Yes- remote tracking	3. No 4. Not specified

Experimenter/therapist feedback

Type	Simple	
When to Code	Always	
Definition	Did the intervention include the provision of feedback from the research team on progress/performance?	
Comments		
Response alternatives	1. Yes- each session 2. Yes-weekly 3. Yes- upon completion 4. Other (specify)	5. No 6. Not specified

Practical support

Type	Simple	
When to Code	Always	
Definition	Did the intervention include some means of practical support (e.g., technical support)	
Comments		
Response alternatives	1. Yes- at fixed intervals 2. Yes- as needed/required	3. Other (specify) 4. No 5. Not specified

Emotional/motivational support

Type	Simple	
When to Code	Always	
Definition	Did the intervention include opportunities for emotional/motivational support	
Comments		
Response alternatives	1. Yes- at fixed intervals 2. Yes- as needed/required	3. Other (specify) 4. No 5. Not specified

Analyses

Intention to treat

Type	Simple	
When to Code	Always	
Definition	Data analysed on the basis of the intervention conditions to which participants were originally randomised?	
Comments		
Response alternatives	1. <u>Yes</u> 2. No 3. Not specified	

Commented [SEP25]: Coder B?

As received/per protocol

Type	Simple	
When to Code	Always	
Definition	Data analysed on the basis of whether or not participants completed the treatment protocol to which they were randomised?	
Comments		
Response alternatives	1. <u>Yes</u> 2. <u>No</u> 1-3. Not specified	<u>2-4.</u>

Commented [SEP26]: Coder B?

BW group analyses conducted?

Type	Simple	
When to Code	Always	
Definition	Were between group analyses conducted?	
Comments		
Response alternatives	1. <u>Yes</u> 2. <u>No</u> 1-3. Not specified	<u>2-4.</u>

Commented [SEP27]: Coder B?

Point measures & measures of variability reported?

Type	Simple	
When to Code	Always	
Definition		
Comments		
Response alternatives	1. <u>Yes</u> 2. <u>No</u> 1-3. Not specified	<u>2-4.</u>

Commented [SEP28]: Coder B?

Effect sizes reported?

Type	Simple	
When to Code	Always	
Definition		
Comments		
Response alternatives	1. <u>Yes – for primary outcomes</u> 2. <u>Yes – for primary and proximal outcomes</u> 1-3. <u>Yes – for primary and secondary outcomes</u> 2-4. Not reported	

Commented [SEP29]: Coder B?

Effect size type

Type	Simple	
When to Code	When one of the ‘yes’ responses have been selected for ‘effect sizes reported?’ question.	
Definition	What type(s) of effect size is (were) reported?	
Comments		
Response alternatives	1. <u>Eta</u> 2. <u>R</u> 3. <u>Difference (p)</u> 4. <u>d</u> 5. <u>other (please specify)</u> 1-6. <u>N/A</u>	

Commented [SEP30]: Coder B?

Moderators

Type	Simple	
When to Code	Always	
Definition	Did the analyses include consideration of any moderating factors?	
Comments		
Response alternatives	1. <u>Expectations</u> 2. <u>Adherence</u> 3. <u>Demographics</u> 4. <u>Wellbeing/Mood</u> 4-5. <u>Setting</u>	6. <u>Psychosocial support</u> 2-7. <u>Personality/Views/Beliefs</u>

Commented [SEP31]: Coder B?

Assessments

Introduction

Write a short introduction to this section (add for other sections too)

Total no. of measures given

Type	Simple	
When to Code	Always	
Definition	What is the total number of measures given to participants in the study?	
Comments		
Response alternatives	Numerical	

Sub Measures

1. Cognitive

Type	Simple	
When to Code	Always	
Definition	What are the cognitive measures administered in the study?	
Comments		
Response alternatives	Free text	

2. Cog. Intervals

Type	Simple	
When to Code	Always	
Definition	At what intervals are the cognitive measures administered in the study?	
Comments		
Response alternatives	1. BL only 2. BL + within 3. BL + within + 2 wks post 4. BL + 2 wks post 5. BL + 2 wks post + 2wk-3ms 6. BL + 2 wks-3ms 7. BL + 2 wks post + 4-11ms 8. BL + 2 wks post + 2wks-3ms + 12ms+ 9. BL + 2 wks post + 12ms+ 10. BL + 4-11ms 11. BL + all 4 f/ups 12. Other (Specify) 13. Not specified	

3. Mood & Wellbeing

Type	Simple	
When to Code	Always	
Definition	What are the mood and wellbeing measures administered in the study?	
Comments		
Response alternatives	Free text	

4. M WB intervals

Type	Simple	
When to Code	Always	
Definition	At what intervals are the wellbeing measures administered in the study?	
Comments		
Response alternatives	1. BL only 2. BL + within 3. BL + within + 2 wks post 4. BL + 2 wks post 5. BL + 2 wks post + 2wk-3ms 6. BL + 2 wks-3ms	7. BL + 2 wks post + 4-11ms 8. BL + 2 wks post + 2wks-3ms + 12ms+ 9. BL + 2 wks post + 12ms+ 10. BL + 4-11ms 11. BL + all 4 f/ups 12. Other (Specify) 13. Not specified

14. Functional

Type	<u>Simple</u>	
When to Code	<u>Always</u>	
Definition	<u>What are the measures of daily functioning administered in the study?</u>	
Comments		
Response alternatives	<u>Free text</u>	

15. Func Intervals

Type	Simple	
When to Code	Always	
Definition	At what intervals are the <u>measures of daily functioning</u> administered in the study?	
Comments		
Response alternatives	1. BL only 2. BL + within 3. BL + within + 2 wks post 4. BL + 2 wks post 5. BL + 2 wks post + 2wk-3ms 6. BL + 2 wks-3ms	7. BL + 2 wks post + 4-11ms 8. BL + 2 wks post + 2wks-3ms + 12ms+ 9. BL + 2 wks post + 12ms+ 10. BL + 4-11ms 11. BL + all 4 f/ups 12. Other (Specify) 13. Not specified

14. Meta-cognition

Type	<u>Simple</u>	
When to Code	<u>Always</u>	
Definition	<u>What are the measures of meta cognition administered in the study?</u>	
Comments		
Response alternatives	<u>Free text</u>	

15. MC intervals

Type	Simple	
When to Code	Always	
Definition	At what intervals are the <u>measures of</u> meta cognition administered in the study?	
Comments		
Response alternatives	1. BL only 2. BL + within 3. BL + within + 2 wks post 4. BL + 2 wks post 5. BL + 2 wks post + 2wk-3ms 6. BL + 2 wks-3ms	7. BL + 2 wks post + 4-11ms 8. BL + 2 wks post + 2wks-3ms + 12ms+ 9. BL + 2 wks post + 12ms+ 10. BL + 4-11ms 11. BL + all 4 f/ups 12. Other (Specify) 13. Not specified

14. BM intervals

Cognitive composites? (Check results)

Commented [SEP32]: Unsure of what measures this is referring to? No variable/question prior to this in the question set.

Type	Simple	
When to Code	Always	
Definition	Were the results of any cognitive measures combined to create a cognitive composite?	
Comments		
Response alternatives	Free text	

Commented [SEP33]: Coder B

Alternate forms used?

Type	Simple	
When to Code	Always	
Definition	If alternate forms of the measures were used, at what assessment time points were the alternate forms used?	
Comments		
Response alternatives	1. BL only 2. BL + within 3. BL + within + post 4. BL + post 5. BL + post + ST F/up 6. BL + post + ST F/up + MT F/up	6-7. BL + post + M/T 7-8. BL + post + M/T + L/T 8-9. BL + post + L/T 9-10. BL + all 4 F/ups 10-11. BL + 4-11ms 11-12. BL + within + all 4 F/ups 12-13. Other (specify) 14. Not specified

Commented [SEP34]: Coder B (because requires identification that alternate forms were used in addition to identifying time points)

Number of assessment occasions

Type	Simple	
When to Code	Always	
Definition	How many assessment time points were included in the study?	
Comments		
Response alternatives	Select number from 0-10	

Study Results (to be linked with the outcomes and measures section online)

Number of target populations

Number of experimental conditions

Number of control conditions

Number of assessment points (evaluations)

Sub Populations

Number of measures administered

Measure 1 (this section will be repeated by the number of measures administered)

Outcome for

What is the outcome category?

What is the broad outcome?

Specific outcome (conditional)

What is measure/test launched

Was the outcome designated primary or secondary?

Near vs. far?

Commented [SEP35]: Coder B?

Control group results

Experimental group results

Cognitive outcome measure 1

PRE Intervention

Type	Simple	
When to Code		
Definition		
Comments		
Response alternatives	1.	2.

POST Intervention

Type	Simple	
When to Code		
Definition		
Comments		
Response alternatives	1.	2.

Follow up 1 (short-medium term)

Type	Simple	
When to Code		
Definition		
Comments		
Response alternatives	1.	2.

Follow up (medium-long term)

Type	Simple	
When to Code		
Definition		
Comments		
Response alternatives	1.	2.