



The Caribbean
Center for Child
Neurodevelopment

GRENADA LEARNING AND MEMORY SCALE

ADMINISTRATION MANUAL

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Introduction

Overview

Developed in Grenada, the **Grenada Learning and Memory Scale (GLAMS)** is a tool designed to assess auditory-verbal and visual-verbal associative memory in children from limited-resource settings. It measures different stages of memory, such as encoding, consolidation, and retrieval with learning, delayed recall, and recognition trials. The GLAMS can be administered in approximately 30 minutes and uses inexpensive, easy-to-access materials. It features two subtests and comes in three versions categorised by difficulty level (Blackmon et al., 2024). An assessment checklist is also included to capture important information such as behavioural observations and the testing environment. This checklist is to be completed immediately after the administration of the subtests, allowing the administrator to document any notable behaviours or environmental factors that may have impacted the child's performance during the assessment.

The GLAMS is currently designed, normed, and validated for English-speaking children in Grenada aged 3 to 5, with plans to expand to older ages, other Caribbean countries, and other languages. It can be administered in clinics, homes, and school settings by trained personnel with a bachelor's level education, but requires graduate-level education and training in clinical psychology for interpretation (Blackmon et al., 2024).

GLAMS Subtests

1) Shopping List Test (SLT):

The Shopping List Test (SLT) is an auditory-verbal task that simulates a trip to the shop, where the child helps the administrator to remember a list of culturally familiar items to purchase. This scenario reflects a common activity among young Caribbean children. The SLT is adapted from the California Verbal Learning Test - Children's Version (CVLT-C) (Delis et al., 1994) and the NEPSY-II 'List Memory' subtest (Korkman et al., 2007). There are three versions of increasing difficulty level: version T4 (4 target items), version T6 (6 target items), and version T8 (8 target items). Each version includes three learning trials, one delayed recall trial, and one recognition trial (Blackmon et al., 2024).

2) Face-Name Binding Test (FNBT)

In the Face-Name Binding Test (FNBT), the child associates 2D drawings of children's faces with assigned names. The faces are designed to resemble Grenadian children, most of whom are of Afro-Caribbean descent, and the target names are common in Grenada. The FNBT is adapted from the NEPSY-II 'Memory for Names' subtest (Korkman et al., 2007). The FNBT includes three learning trials and a delayed recall trial.

GLAMS Versions

- 1) **T4 Version:** Designed for 3-year-olds, featuring four target items to learn and recall.
- 2) **T6 Version:** Designed for 4- to 5-year-olds, featuring six target items to learn and recall.
- 3) **T8 Version:** Designed for children aged 6 and older, featuring eight target items to learn and recall.

Each version increases in difficulty to account for developmental and maturation differences among children as they age.

Test Development and Psychometric Properties

Test Development

The GLAMS was developed by a collaborative team consisting of two Caribbean community and clinical psychologists (Kemi Burgen and Erin Ingraham), a Caribbean public health investigator (Bianca Punch), a Grenadian visual artist (Rashida Isaac), and two American clinical neuropsychologists (Barbara Landon and Karen Blackmon). Pilot data collection, validation, and normative sample development was led by a Caribbean organisational psychologist (Roberta Evans). The primary objective was to create a tool that incorporated the following elements:

- 1) Measures immediate learning, delayed recall, and recognition
- 2) Assesses both auditory-verbal and visual-verbal associative memory
- 3) Gradual increases in difficulty level to account for developmental maturation in young children 3 years of age and older
- 4) Uses procedures and stimuli familiar to children in the Caribbean region
- 5) Utilises easy-to-use, inexpensive materials that can be distributed at low cost, particularly in resource-limited settings
- 6) Short administration time

The GLAMS was initially trialled with various instruction sets, paradigms, stimuli, and difficulty levels, incorporating iterative feedback from focus groups comprising community stakeholders in Grenada, including students, nurses, teachers, and social workers (Blackmon et al., 2024).

Reliability

In preschool children, internal consistency was found to be acceptable among all nine GLAMS subtest trials ($\alpha = .74$) and among the five SLT trials ($\alpha = .72$) and four FNBT trials ($\alpha = .74$). In an exploratory factor analysis with direct oblimin rotation, KMO was sufficient (0.71), and Bartlett's test was significant ($p < .001$). The analysis revealed two latent factors, with Factor 1 contributing 50% and Factor 2 an additional 22% to the total variance prior to rotation. Rotated sums of squared loadings are provided in Table 1. Within the rotated component matrix, three subtests exhibited high loadings on Factor 1 (SLT learning, delayed recall, and recognition discriminability), while two subtests displayed high loadings on Factor 2 (FNBT total learning and delayed recall). These results support the GLAMS as a measure of a unified construct (memory), with

two latent factors (auditory-verbal and visual-verbal associative memory) accounting for 72% of the variance (Blackmon et al., 2024).

Table 1. Results from exploratory principal components analysis with varimax rotation

Total Variance Explained						
Component	Initial Eigenvalues			Rotated Sum of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.49	49.99	49.99	2.50	49.99	49.99
2	1.09	21.75	71.74	1.09	21.75	71.74
3	0.59	11.79	83.54			
4	0.43	8.65	92.18			
5	0.39	7.82	100.00			

Rotated Component Pattern Matrix		
Subtest	Principal Components	
	Component 1	Component 2
SLT Total Learning	0.82	0.30
SLT Delayed Recall	0.85	0.33
SLT Recognition Discriminability	0.77	0.30
FNBT Total Learning	0.34	0.90
FNBT Delayed Recall	0.35	0.89

Note. SLT = Shopping List Test; FNBT = Face-Name Binding Test

The test-retest interval duration was two weeks, with a median of 14 days across all three settings (school, home, clinic). Acceptable test-retest reliability was observed for SLT total learning, SLT recognition discriminability, and FNBT total learning (Table 2). Relatively smaller (but still significant) reliability coefficients were observed for SLT delayed recall and FNBT delayed recall (Table 2). Higher reliability coefficients for total learning scores are consistent with classical test theory predictions of higher reliability for multiple-item measures (Cappelleri et al., 2014). The relatively lower delayed recall reliability coefficients should be interpreted in the context of the rapid developmental gains achieved during early childhood. Test-retest reliability coefficients remained acceptable across test settings (home, school, clinic) for SLT total learning and delayed recall but were more variable for FNBT subtests (Table 2), with higher reliability coefficients obtained in the clinic, relative to home, for FNBT total learning (Blackmon et al., 2024).

Table 2. Test-retest reliability

Subtest	<i>r</i>	95% CI	<i>p</i>			
SLT Total Learning	.72	[0.61, 0.80]	<.001			
SLT Delayed Recall	.56	[0.41, 0.69]	<.001			
SLT Recognition Discriminability	.80	[0.72, 0.86]	<.001			
FNBT Total Learning	.62	[0.48, 0.74]	<.001			
FNBT Delayed Recall	.45	[0.27, 0.59]	<.001			
Test-Retest Reliability Across Settings						
	Home (<i>n</i> =30)		School (<i>n</i> =33)		Clinic (<i>n</i> =33)	
	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>
SLT Total Learning	.69	<.001	.66	<.001	.78	<.001
SLT Delayed Recall	.63	<.001	.52	<.002	.54	<.001
SLT Recognition Discriminability	.87	<.001	.92	<.001	.65	<.001
FNBT Total Learning	.37	<.05	.49	<.01	.80	<.001
FNBT Delayed Recall	.51	<.01	.26	.142	.63	<.001

Note. *r* = Pearson's *r*, CI = confidence interval, SLT = Shopping List Test; FNBT = Face-Name Binding Test.

Inter-rater Reliability

Inter-rater agreement was evaluated across four raters who independently observed and scored videos of 12 GLAMS administrations to 3-, 4-, and 5-year-old children (four in each age group). Substantial to perfect agreement was achieved on all trials (Table 3). Slightly lower agreement was observed in ratings of “repeats” and “intrusions” due to ambiguity in coding of repeated intrusions. This prompted clarification of scoring criteria to specify that a repeated intrusion should be counted as an “intrusion” (Blackmon et al., 2024).

Table 3. Inter-rater agreement across all GLAMS trials (4 raters, 12 videos)

Variable	κ	Qualitative Labelling of Effect Size	95% CI	p
SLT Learning Trial 1	1.00	Perfect Agreement	[0.89, 1.11]	<.001
SLT Learning Trial 2	.88	Almost Perfect Agreement	[0.75, 0.99]	<.001
SLT Learning Trial 3	1.00	Perfect Agreement	[0.88, 1.13]	<.001
SLT Delayed Recall	.76	Substantial Agreement	[0.65, 0.87]	<.001
SLT Test Repeats	.65	Substantial Agreement	[0.48, 0.82]	<.001
SLT Intrusions	.70	Substantial Agreement	[0.58, 0.83]	<.001
SLT Recognition Hits	.93	Almost Perfect Agreement	[0.77, 1.09]	<.001
SLT Similar Foils	.92	Almost Perfect Agreement	[0.76, 1.07]	<.001
SLT Different Foils	.91	Almost Perfect Agreement	[0.72, 1.09]	<.001
SLT Recognition Discriminability	.88	Almost Perfect Agreement	[0.77, 0.99]	<.001
FNBT Learning Trial 1	.88	Almost Perfect Agreement	[0.75, 0.99]	<.001
FNBT Learning Trial 2	.87	Almost Perfect Agreement	[0.75, 0.99]	<.001
FNBT Learning Trial 3	1.00	Perfect Agreement	[0.85, 1.15]	<.001
FNBT Delayed Recall	1.00	Perfect Agreement	[0.87, 1.13]	<.001

Note. κ = Fleiss' kappa, CI = Confidence Interval, SLT = Shopping List Test; FNBT = Face-Name Binding Test.

Construct Validity

Among preschool children, there were positive correlations between NEPSY-II Sentence Repetition and SLT total learning, $r(388) = .31, p < .001$, delayed recall, $r(387) = .27, p < .001$, and recognition discrimination, $r(387) = .26, p < .001$, as well as with FNBT total learning, $\rho(335) = .28, p < .001$, and delayed recall, $\rho(336) = .21, p < .01$. These findings support convergent validity between a measure of verbal working memory and all five core GLAMS subtests. Furthermore, the absence of a positive correlation between NEPSY-II visuomotor precision and any of the GLAMS subtests supports divergent validity with the purportedly orthogonal construct of speeded hand-eye coordination in preschool children (Blackmon et al., 2024).

Further exploration with the NEPSY-II block construction subtest revealed small positive correlations with FNBT total learning, $\rho(335) = .14, p < .01$, and delayed recall, $\rho(336) = .19, p < .001$, but not with other GLAMS subtests. This aligns with the expected visuospatial demands of face-name associative memory. However, correlations with the NEPSY-II statue subtest yielded unexpected positive association with SLT total

learning, $r(389) = .31, p < .001$, delayed recall, $r(389) = .29, p < .001$, and recognition discrimination, $r(389) = .26, p < .001$, as well as with FNBT total learning, $\rho(335) = .15, p < .01$. This highlights inhibitory control as a significant component of learning and memory performance and underscores the inherent executive demands of standardised testing in young children (Blackmon et al., 2024).

Normative Data

Shopping List Test (SLT)

Means and standard deviations for SLT scores in preschool children are provided below to facilitate individual-level normative adjustments. The sample was stratified into 6-month age blocks for age adjustment and further stratified by sex to facilitate age- and sex-based adjustments for these subtests (Blackmon et al., 2024).

Table 4. Shopping List Test means and variance across 6-month age blocks

Shopping List Test Learning, Delayed Recall, and Error Scores									
Age (months)	N	Total Learning		Delayed Recall		Repetitions		Intrusions	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
36-42	79	6.39	2.63	1.33	1.21	0.35	0.82	1.24	1.50
43-48	56	7.8	2.85	1.95	1.27	1.29	2.95	1.25	1.71
49-54	75	9.48	2.74	2.52	1.58	0.73	1.18	2.24	3.19
55-60	85	10.29	3.08	3.20	1.56	0.55	0.78	0.59	1.10
61-66	61	11.39	2.90	3.49	1.39	0.59	1.10	1.72	2.03
67-72	37	11.27	2.30	3.86	1.25	0.68	1.55	1.97	2.44
Shopping List Test Yes/No Recognition Discriminability, Hits, and False Positives									
Age (months)	N	Recognition Discriminability		Total Hits		Semantically Similar Foils		Semantically Different Foils	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
36-42	79	0.64	1.46	5.83	1.23	1.75	0.58	3.44	1.37
43-48	56	0.67	1.72	6.30	2.01	1.95	0.78	3.68	1.76
49-54	75	2.30	3.41	7.82	1.99	1.88	1.25	3.64	2.57
55-60	85	3.48	3.76	7.41	2.46	1.41	1.26	2.53	2.59
61-66	61	4.05	3.57	7.23	2.29	1.16	1.08	1.95	2.25
67-72	37	6.05	3.50	8.07	1.51	0.80	1.10	1.22	2.15

Face-Name Binding Test (FNBT)

Given the non-normal distribution of scores on FNBT total learning and delayed recall subtests in preschool children, cumulative percentiles are provided for scores across 6-month age blocks (Blackmon et al., 2024). As an example for how these percentiles should be used, consider that a 37-month-old child with a score of 1 on the total

learning trial would be in the 20-29th percentile (low average to average range). A 60-month-old child with a score of 1 would be in the 10-19th percentile (low average range). A 68-month-old child with a score of 1 on the total learning trial would be in the 0-9th percentile (below average range).

Table 5. Face-Name Binding Test cumulative percentiles across 6-month age blocks.

Cumulative Percentiles for Face-Name Binding Test Total Learning											
Age (months)	N	0-9th	10-19th	20-29th	30-39th	40-49th	50-59th	60-69th	70-79th	80-89th	90-99th
36-42	60	-	-	1	-	-	2	3	4	5	6+
43-48	44	-	-	1	-	2	-	3	-	4 - 5	6+
49-54	64	-	-	1	-	-	2	3	-	4 - 6	7+
55-60	77	-	1	-	2	3	-	4	5	6	7+
61-66	56	-	-	1	2	3	-	4	5	6 - 7	8+
67-72	35	1	-	2	3	-	4	-	5	6 - 7	8+

Cumulative Percentiles for Face-Name Binding Test Delayed Recall											
Age (months)	N	0-9th	10-19th	20-29th	30-39th	40-49th	50-59th	60-69th	70-79th	80-89th	90-99th
36-42	60	-	-	-	-	-	0	-	-	1	2+
43-48	44	-	-	-	0	-	-	-	1	-	2+
49-54	64	-	-	-	0	-	-	-	1	-	2+
55-60	77	-	-	0	-	-	-	1	-	2	3+
61-66	56	-	-	0	-	-	1	-	-	2	3+
67-72	35	-	-	0	-	-	1	-	-	2	3+

Administration Instructions

Materials Needed

The materials required for administering the GLAMS include the following:

- GLAMS response forms (which include a Shopping List Test and a Face-Name Binding Test)
Available from the test developer; please email contactus@cccnd.org for access.
- GLAMS stimulus book (T4, T6, and/or T8)
Available from the test developer; please email contactus@cccnd.org for access.
- Pencil or pen
- Stopwatch

Time Limit and Scheduling

There is no strict time limit for administering the GLAMS subtests. However, the delay interval between the learning and delayed recall trials must be approximately 20 minutes for both subtests. The child should be given sufficient time (maximum 15 seconds) to respond to each item.

If the child is uncooperative or unable to complete the tests, the administrator may decide whether to stop the assessment and mark it as incomplete.

It is recommended that the GLAMS be administered when the child is alert and sufficiently rested.

Testing Environment

The administrator and the child should be seated at a table with chairs that allow them to be at similar heights. The child's chair should enable them to view the stimulus booklet at eye level. The environment ideally should be quiet, free of distractions, and well-lit.

Establishing Rapport With the Participant

Before beginning the administration of the GLAMS, the administrator should first check in with the caregiver and/or the child to assess the child's state, such as whether they may be tired or hungry.

To establish rapport before the test, the administrator may engage the child in conversation and with age-appropriate puzzles, games, or toys (e.g., building blocks). Care should be taken not to use games that can cause memory interference or items related to the GLAMS assessment.

Shopping List Test

Learning Trials

The administrator may begin the GLAMS by administering the Shopping List Test, which includes three learning trials, followed by a delayed recall trial and a recognition trial.

For **Trial I**, instruct the child by saying: *We are going to the shop. Help me remember the list of things we are supposed to get. Listen to what I say, and when I am finished, say them back to me in any order.*

Read the list of items at a rate of one word per second. Once the list is read, prompt the child to recall the items in any order. Allow ample time for the child to respond, then write down their answers in the corresponding column.

Continue to administer Trial II and Trial III using the following prompts. Allow the child enough time to respond. Write down the child's responses (correct and incorrect) in the corresponding columns.

For **Trial II**, say: *Let's try it again. I will say the same list again. When I am finished, tell me as many items as you can, including the ones you remembered the first time.*

Read the list again, allow the child time to respond, and record their responses.

For **Trial III**, say: *Let's try it one more time. I will say the same list again. When I am finished, tell me as many items as you can, including the ones from the first two times.*

Long Delay List Recall

After a 20-minute interval filled with distractions that do not require verbal tasks or memorization (e.g. building blocks, puzzles, and drawing), administer the **Long Delay List Recall (LDLR)**.

Say, *Do you remember what we are supposed to buy at the shop? Can you tell me all the things we are supposed to buy?*

Allow the child enough time to respond. Write down the child's responses in the column.

Scoring Learning Trials and Long Delay List Recall

- Each correct item recalled counts as a **Correct Response**.
- Repeated correct items count as **Repeats**. Count each repeated item individually.
- Items not on the list count as **Intrusions**. Note that repeated intrusion items are counted as an intrusion (not as a repetition). Count each repeated intrusion item individually.

For the Long Delay List Recall, sum up the correct responses, repeats, and intrusions from Learning Trials I, II, III, and the Long Delay List Recall.

Recognition Trial

Say, *Now I will say some more things that they sell at the shop. Tell me “Yes”, if it is one of the things we are supposed to get and “No” if it is not one of the things we are supposed to get. Are we going to get...*

Read each item and mark whether the child responds “Yes” or “No”.

For the **Recognition Trial**:

- **T4 version**: List includes 4 target items (T), 4 semantically similar foils (FS), and 4 different foils (FD).
- **T6 version**: List includes 6 target items (T), 6 semantically similar foils (FS), and 6 different foils (FD).
- **T8 version**: List includes 8 target items (T), 8 semantically similar foils (FS), and 8 different foils (FD).

Scoring Recognition Trial

- Award 1.5 points for each correct endorsement of a target item (T).
- Deduct 0.5 points for incorrect endorsement of semantically related foils (FS).
- Deduct 1 point for incorrect endorsement of semantically different foils (FD).

Score ranges:

- **T4 version**: -6 to 6
- **T6 version**: -9 to 9
- **T8 version**: -12 to 12

Face-Name Binding Test

Learning Trial

Say, *I am going to show you a picture of some children and tell you their names. Try to remember them. Say each name after I say it. This is...*

State the child's name with the corresponding picture and allow 5-second exposure for each. Ensure that the child repeats the name. If they do not, prompt them to do so. Once the child repeats the name, move on to the next picture. Be careful not to repeat the name more than once per trial.

Short Delay Recall Trials

There are three trials involved in this subtest.

For **Trial I**, say, *Now I am going to show you the children again, and I want you to tell me their names. Who is this?*

Allow for five seconds of exposure for each face. Ensure that the faces are at the child's eye level.

If the child responds incorrectly or does not respond within 5 seconds, provide the name once and ask the child to repeat the name, then show the next face/move on.

For **Trial II** and **Trial III**, say, *Who is this?*

Repeat the process from Trial I.

Face-Name Binding Long Delay Recall

After the administration of the **Recognition Trial** (if the Shopping List Test was done first) or after a 20-minute delay, proceed to the **Face-Name Binding Long Delay Recall**.

Say, *Remember when I showed you some pictures of children and told you their names? Who is this?*

Allow for five seconds of exposure for each face. If the child does not respond or gives an incorrect name, move on to the next face without providing corrections.

Scoring Face-Name Binding Test

The total learning score is the sum of correctly recalled names across the three Learning Trials, with score ranges:

- **T4 version:** 0 to 12
- **T6 version:** 0 to 18
- **T8 version:** 0 to 24

The delayed recall score is the total number of names correctly recalled in the Face-Name Binding Long Delay Recall, with score ranges:

- **T4 version:** 0 to 4
- **T6 version:** 0 to 6
- **T8 version:** 0 to 8

There is no recognition trial for the Face-Name Binding Test.

Sample Responses and Scoring Examples- GLAMS T6 Version

Shopping List Test

LIST	TI	TII	TIII
BREAD	Juice	Bread	Rice
MILK	Salt	Rice	Salt
SALT	Juice	Butter	Salt
BUTTER	Chocolate	Soda	Butter
JUICE	Rice	Water	Milk
RICE	Chocolate	Bread	Rice
	Chocolate	Butter	Juice
	Chocolate	Soda	Salt
	Candy	Butter	
CORRECT RESPONSES	3	3	5
REPEATS	1	3	3
INTRUSIONS	5	2	0

TOTAL LEARNING (Trial I correct + Trial II correct + Trial III correct) = 11

Long Delay List Recall

LIST	TI
BREAD	Bread
MILK	Salt
SALT	Juice
BUTTER	Milk
JUICE	Butter
RICE	Rice
CORRECT RESPONSES	6
REPEATS	0
INTRUSIONS	0

TOTAL REPEATS (TI + TII + TIII + LDLR) = 7

TOTAL INTRUSIONS (TI + TII + TIII + LDLR) = 7

Recognition

RECOGNITION	YES	NO
EGGS (FS)	✓	
MILK (T)	✓	
CHICKEN (FD)	✓	
MATCHES (FD)		✓
SAUSAGE (FS)		✓
BREAD (T)	✓	
OIL (FD)	✓	
BEANS (FS)		✓
BUTTER (T)		✓
SOAP (FD)	✓	
SALT (T)	✓	
BISCUITS (FS)		✓
RICE (T)	✓	
COAL (FD)		✓
FLOUR (FS)		✓
TISSUES (FD)		✓
JAM (FS)		✓
JUICE (T)	✓	

- If child says “yes” to a Target (T), then one and a half points are given (+1.5)
TARGET HITS (max=9): 7.5
- FS FALSE POSITIVES Each time child says “yes” to a Similar Foil (FS) counts for half a point (max=3)
TOTAL FS FALSE POSITIVES: 0.5
- FD FALSE POSITIVES Each time child says “yes” to a Different Foil (FD) counts for a point (max=6):
TOTAL FD FALSE POSITIVES: 3
- **TOTAL FALSE POSITIVES (TFP)**
 FS + FD (max=9): 3.5
- **DISCRIMINATION SCORE**
HITS - TFP (range = -9 to 9): 4

Face-Name Binding

SHORT DELAY RECALL TRIAL I

			Points
1. Nicki	Right	Wrong	<u>1</u>
2. Amanda	Right	Wrong	<u>0</u>
3. Mark	Right	Wrong	<u>1</u>
4. Peter	Right	Wrong	<u>0</u>
5. Brian	Right	Wrong	<u>0</u>
6. Mary	Right	Wrong	<u>0</u>
		TI Total	<u>2</u>

Interpretation Guidelines

Interpretation of Raw Scores

An Excel normative score calculator is available from the test developer.

Special Circumstances

Non-cooperative Children

If the child seems unengaged, distracted, or uncooperative during the assessment, the administrator can check in to see if they need anything, such as a bathroom break, food, or water. The administrator may also suggest a brief movement exercise, such as “hands up, hands down”. The administrator may also use the S.T.A.R. (Stop/Smile, Take a Deep Breath, And Relax) breathing technique, offer blocks, or allow the child to briefly move around. These strategies can help refocus the child’s attention. The administrator should use their professional judgement to determine which reasonable accommodations can be offered to the child, such as allowing the child to stand if they prefer.

In cases where the child is unable to engage with a subtest, the administrator may decide to move on to another subtest or end the assessment. Note that continuing under conditions where a child is not engaged may not produce fair or accurate results. If the assessment ends early, it should be marked as incomplete. The GLAMS assessment checklist should include the relevant behavioural observations to reflect these circumstances as well as any accommodations provided.

Children With Disabilities or Special Needs

Before the assessment, the administrator should gather information about the child’s specific needs and make the necessary accommodations/adjustments. For instance, the administrator can offer additional reassurance/encouragement and breaks if the child appears to be stressed or becomes unengaged. The administrator should document any modifications made during the assessment in the GLAMS assessment checklist.

Interrupted or Incomplete Assessments

If there is an interruption during the assessment, the administrator should note the time and the nature of the disruption. The administrator should resume the assessment

as soon as possible, ensuring that the child is engaged before proceeding. If the interruption appears to affect the child's performance, this should be noted in the GLAMS assessment checklist.

The assessment should be marked as incomplete if the assessment cannot be completed due to the child's tiredness, lack of cooperation, or other circumstances. The administrator should note the reason(s) for the early termination in the GLAMS assessment checklist. In these cases, the incomplete assessment should not be scored.

If appropriate, the assessment may be rescheduled for a future date and at a time when the child is more likely to be engaged.

Ethical Considerations

Informed Consent

Permission from the child's parent or guardian must be obtained before administering the GLAMS.

Cultural Considerations

The GLAMS uses culturally relevant stimuli and familiar scenarios for Caribbean children. The assessment tasks are designed to be meaningful and appropriate for children throughout the region.

If you wish to make the subtests of the GLAMS more suited to your specific region, please contact the authors at contactus@cccnd.org for assistance.

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