

Movement Assessment Battery for Children—Second Edition Frequently Asked Questions (FAQs)

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Administration

1. **How should I introduce the Movement ABC–2 Test?**

Some guidance on introducing the test is given on page 16 of the manual. However, practitioners often have their own ways of introducing tests to children and may vary this according to the age of the child and what they know about them. As long as the child gets the idea that the test is not threatening and includes activities that most children enjoy, then good cooperation is likely to follow.

For young children, we often use the idea of the test as a series of games that they can play. In this context, however, it is important to get across the idea that the games are 'serious' and that they must try their best to do exactly as they are asked. Changing the 'rules of the game' is not allowed during formal testing but it can be helpful to involve the child in adapting the games if further informal assessment is undertaken.

For older children, it is often sufficient to say that the test involves activities which will show the tester how good they are with their hands, whether they have good balance, and so on.

2. **What clothes should a child wear in order to participate in a Movement ABC–2 assessment?**

Suitable physical education clothing (gym shorts, T-shirt, gym shoes or trainers) is strongly recommended so that movement is unimpaired and easily observed. Tracksuits, warm-up pants, or everyday trousers are acceptable provided movement is not restricted in any way.

If a child arrives for testing without the recommended clothing or footwear, use your judgement about their suitability, particularly with regard to safety.

If the child usually wears glasses, make sure they are brought along to the test session and are worn for the relevant tasks.

The examiner should also wear appropriate clothing and footwear to facilitate demonstration of the tasks to the child.

3. **Can I test a child without shoes?**

We are aware that clinicians generally assess children both with and without shoes, especially on balance activities. However, for legal and safety reasons, the Movement ABC – 2 was standardised on children using well-fitting shoes (see page 15 of the manual). This means that formal testing must be done with shoes on so that the norms can be properly applied. If, however, a child turns up for testing without shoes, or with shoes that do not fit properly (and may be unsafe for tasks such as hopping and jumping), the assessment may go ahead without shoes. In this case the clinician must interpret the scores with caution, as these cannot be

reliably compared to the standardised data.

4. **Do I need to administer the whole test?**

Yes, ideally. The Movement ABC - 2 is not a long test and most children enjoy performing the tasks. When all tasks are performed, the test provides data on a child's profile of performance across three different performance categories i.e. Manual Dexterity, Aiming & Catching, and Balance, as well as a Total Test Score. If you do not administer all tasks then much valuable information is lost, especially as it could result in being unable to calculate a total and possibly sub-test scores.

If you are testing a child who is having great difficulty, then do consider the possibility of completing the test in two sessions. This applies whether the problem is with movement, concentration, or understanding of what is required.

5. **Can I change the order of the tasks in the test?**

We do not recommend that you change the order of administration. The test was standardised using the order specified in the manual, so please do not change it unless you have a very good reason.

6. **For tasks in which both limbs are tested, do you demonstrate the task for one hand/leg, give the practice trial for the same hand/leg, and then follow it immediately with the formal trial for that same limb. (Or is the demonstration and practice for both right and left followed by the formal trials with right and left?).**

See boxed text on page 19 of the manual. One way to think about it is to view each hand/leg as a separate item for which practice trials always immediately precede the formal trials. For example, in the uni-manual items the child first practices with the preferred hand. If this is the right hand they proceed immediately to do the formal trials with the right hand. They then complete the practice trials with the left hand before moving on to the formal trials with the left.

7. **What if a child refuses to undertake a task or inappropriately responds to an item?**

When one or more items are recorded as 'Refused' or 'Inappropriate', it is not possible to calculate a Total Test Score or the score for any component which has missing items. In such cases, the child's performance should be evaluated qualitatively.

8. **In MABC-1 it was not recommended to mark the shift from practice to formal trial; is this still so in MABC-2?**

There are no hard and fast rules about this. It will depend on the task and the child. When testing a very young child or a child with difficulties the tester should keep in mind that the objective is to get the best out of the child.

In the Manual Dexterity and Balance items there is a clear demarcation between the practice and formal trials and the child needs to know what the difference is, for example, 'now put all the pegs in as fast as you can'. For Aiming & Catching the distinction can be less clear as the task is the same. For example, if the child is having difficulty in the practice trials, there is no need to mark the beginning of the formal trials as it may simply increase their anxiety. The tester should use their judgement.

9. **How much assistance / encouragement can you give the child once the formal trials have begun?**

When administering the test it is important to ensure that the child understands and remembers the task requirements throughout the formal trials and is motivated to keep going. It is therefore important to distinguish help with movement, which is not permissible, from help with other aspects of performance, which

is allowed. The following guidelines may help:

1. Procedural corrections are only allowed between the formal trials. e.g. You may remind the child to pick up the coins one at a time between trials but not while they are posting them in the box; you may remind the child 'not to step over the line' between throws in the task involving throwing and catching; you may remind the child to hop continuously between each trial but not while they are hopping.
2. Reminders about the goal of the task are permissible between the formal trials e.g. on the timed manual tasks you may remind the child to work as quickly as they can next time; in the catching task you can remind the child not to trap the ball against their chest; in the static balance tasks you may remind them to balance even longer the next time.
3. Encouragement to the child may be given between trials e.g. saying 'well done' once the bicycle trail has been completed is fine; counting down the trials in the aiming and catching tasks is permissible; if the child is not doing very well on the catching tasks, it's permissible to say "don't worry this is a difficult task for some children, just do your best"

Page 16 of the manual provides guidelines relating to general administration; refer to the instructions for each item for specific task related guidelines.

10. What are the recommended re-test intervals?

A minimum of 6 months to a year is recommended to minimise practice effects.

11. Are there any problems when re-testing a child that now falls within a different age band with different activities to assess them with?

Regardless of which age band a child is assessed in, the results always yield a standard score and percentile which are comparable. Therefore no problems will arise when assessing a child in one age band and re-assessing in another. The most important thing is to assess a child in the correct age band.

12. If a child is struggling with the throwing and catching, is it possible to drop an age band and administer an easier version of the task?

In order to obtain standard scores for all elements of the test (items, sub-components and totals), all age-appropriate items must first be strictly administered and scored according to the instructions in the manual. However, after formal testing has been completed, the tester may administer other items to explore the child's capabilities (see page 4 of the Test manual). It may also be useful to refer to the Ecological Intervention manual for further guidance.

Equipment

1. If a piece of equipment is missing from my kit, can I improvise?

No, only the equipment supplied in the test kit must be used. Replacement items may be purchased from the publisher. The test was standardised using the test equipment provided and any change to this may invalidate the results obtained.

2. Do the Movement ABC-2 mats contain latex?

None of the supplier's standard products have latex in their compound as a basic constituent. However, due to the ecological move to recycle products, some of the materials contain recycled rubber to support this initiative. It is therefore impossible to guarantee zero content of latex in the recycled portion of the

compounds. Mats may therefore contain a trace.

There is no latex content in the formulation of the inks used.

Task Specific Queries: Manual Dexterity

1. **Is it compulsory to use the discontinuation rule on the Manual Dexterity (MD) 1 and 2 tasks in Age Bands 1, 2 and 3, as it seems that by doing this a child may be deprived of the opportunity to obtain a higher score on the second trial?**

Based on overwhelming feedback from Movement ABC-2 test users stating that they prefer not to implement this rule as they believe the advantage of cutting down on administration time is outweighed by the above concern, the discontinue rule has now been discarded for the MD 1 and 2 tasks in all three age bands.

Please note that the discontinue rule was developed after all of the standardisation data was processed so whether you have been applying it or not has no implications on the standard scores in the normative tables.

An update was made to the manual in May 2010 to clarify this. Please contact customer service for more information.

2. **What can be placed under the paper for the drawing tasks? In the manual, the photographs show a yellow mat of some description?**

It is recommended that for the drawing tasks you use a 'smooth writing base that is not too hard or slippery' (see p. 28 of the manual). For the photographs, we used a piece of yellow card underneath the drawing trail, which showed up well on the table. If card is to be used in this way, care should be taken that it is frequently checked and replaced if it becomes rough or indented. The table top mat should not be used for the drawing tasks.

3. **Why is there a tunnel on the drawing trails?**

The reason there is a bridge on the drawing trail is that afterwards the width narrows so as to make it more sensitive to that whole age range.

A small gap is allowed (see Appendix A of the manual) for younger children who don't follow the instruction to continue under the tunnel, and stop and start again after the tunnel.

4. **Are the nuts in the triangle supposed to be inserted the same way in all 3 corners?**

No. These can be inserted either way in each of the corners.

5. **If a child fails a manual dexterity item due to a procedural fault what standard score do you award them for that subtest?**

If the child is unable to complete a manual dexterity item as a result of a procedural fault (for example, pegs are dropped on the floor) then this is recorded as a 'failure' (F). If the child fails on all of the formal trials given for that task, they are assigned a standard score of 1 (see p. 80/81 of manual).

Please note, however, that refusals and tasks not completed for other reasons are dealt with differently. An 'R' should be recorded if the child refuses to perform a task or gives up half way and refuses to continue. An 'I' is recorded if it is inappropriate for the child to attempt a task, either on the day of testing or more generally. In these cases, a standard score cannot be awarded.

Task Specific Queries: Aiming and Catching

- 1. Which way round should the floor mats be placed in the Aiming & Catching tasks. In some photographs this is unclear?**
For all aiming and catching tasks requiring two floor mats, they should be placed with their short sides separated by 1.8m, as stated in the test manual. This may not be represented clearly in some of the photographs due to the camera angle that was necessary to illustrate other aspects of the task.
- 2. How much of the bean bag has to land on the target mat to count as a successful throw?**
A successful hit is recorded if any part of the beanbag touches the target area when it lands (even if part of the beanbag lies off the target area). At Age Band 1 the target area is the whole of the rectangular mat while at Age Band 2 the target area is just the orange circle on the mat.
- 3. In Age Band 2 (Throwing Beanbag on to Mat) is it acceptable for the child to use an over arm throw?**
For this task underarm throwing with one hand is to be encouraged. An underarm throw should be used for the demonstration and encouraged during the practice trials. However, in the formal trials, an over arm or two-handed throw that is successful, is not penalized (see page 50 in the manual).
- 4. In Age Band 1 and 2, is it acceptable for the child to catch with one hand?**
Catching with two hands should be shown in the demonstration and encouraged during the practice trials. However, in the formal trials, catching in one hand successfully is not penalised.
- 5. In the task 'Catching with Two Hands' (Age Band 2) do I give different demonstrations and instructions for 7-8 and for 9-10 year olds?**
In this task the ball may bounce once for 7-8 year olds but must be caught directly on the return (without it bouncing on the floor) for 9-10 year olds. It is important to convey this in the demonstration and instructions, as appropriate for the child's age.

Therefore for 7-8 year olds, in the demonstration you should emphasise allowing the ball to bounce once. For 9-10 year olds you should emphasise catching the ball directly off the wall in the demonstration (see page 48 and 49 of the manual)

- 6. Would you please clarify the procedure for testing and scoring children on the Aiming & Catching task 1: Catching with One Hand, in Age Band 3. Should this be preferred hand and non-preferred hand or best hand and other hand?**
In the guidelines on page 66 of the manual it states that both the right and left hand are tested. The Age Band 3 Record Form, page 3, has boxes to record the number of correctly executed catches for the right and left hand. Once the child has completed the formal trails with each hand, then the best hand is identified (i.e. the one with which they caught the most).

This information is then transferred to the raw score best and other boxes on the front page of the Record Form. Norm tables can then be consulted for the child's best and other hand. These were incorrectly labelled as preferred and non-preferred hand, and should read best and other. This has been corrected in the latest reprint of the manual.

Task Specific Queries: Balance

1. **When balancing on one leg, is it acceptable for the legs to touch?**

For the One-Leg Balance task in Age Band 1, the child may keep the free leg in any position, with one exception; although touching the standing leg is permitted, winding the free leg round it not. At Age Band 2, the free foot may not touch the standing leg at all (see photographs page 53 manual).

2. **In 'Walking Toe-to-Heel Backwards' what counts as 'stepping off the line'?**

In this task it is important that the child keeps the feet straight on the line for each step. The middle of the toe of the shoe and the middle of the heel of the shoe should be directly over the line. If you judge the middle of the toe of the shoe and/or the middle of the heel of the shoe to be off the line completely, then this would be considered as 'stepping off the line'.

3. **Sometimes the floor mats move during the hopping/jumping items. What can I do about this?**

A heavy material was chosen for the floor mats in an attempt to reduce slippage. If you find that the mats move on your floor during performance of the tasks, then use tape, 'blu tack' or a similar product to keep them in position (see manual page 14).

Scoring

1. **Can you apply the traffic light system to the individual subtests?**

The traffic light system was developed for examination of total scores, based on percentile cut scores. However in a clinical setting a clinician may be interested in examining the profile of a child's performance across the 3 individual sub-components. Interpretation of the individual subtests using the traffic light system should be done with caution as it is based on a smaller number of items. It is important to consider that when combined with other observations analysis of results of the individual sub-tests may help inform intervention.

2. **What cut off point should I use to identify a child with movement difficulties?**

We use at or below the 5th percentile to denote a significant movement difficulty, with at or below the 15th percentile suggesting the child is 'at risk' of having a movement difficulty. As with any test, to help make a decision about a child, it is important to also consider the amount of possible measurement error. Standard errors of measurement and confidence intervals are provided in the manual (see page 136 for details and examples).

3. **How is it possible for a child who has not scored below the 15th percentile on any of the sub-components (Manual Dexterity, Aiming & Catching or Balance), to then obtain a Total Test Score that falls below the 15th percentile?**

The answer to this lies in the variability of profiles for any particular child. A child who scores in the lowest 15% on balance may be at the 25th percentile for manual skills and aiming and catching, so moving out of the lowest 15th percentile overall.

Thus the same children are not in the lowest 15th percentile across all of the three areas. This leaves it open for a child with a profile of scores just above the 15th% tile to drop into the lowest 15th overall. It is the total test score that reflects performance on the Test.

- **Example (any age)**
 - **MD Standard Score of individual items** (*From Table 2, page 175*)—7, 7, 8—total 22—16%ile
 - **A & C Standard Score** (*From Table 2, page 175*)—9, 7—total 16—25%ile
 - **B Score Standard Score** (*From Table 2, page 175*)—7, 8, 8—total 23—16%ile
- **The overall total 61 from individual Standard Scores gives a %ile rank of 9** (*From Table 3a, page 176*)

4. Why is it that the amber standard score range in Table 3b does not exactly match with the range in Table 3a on page 176 of the manual?

The relationship between each possible standard score and the corresponding percentile ranks is shown in Table 3a on page 176 and also illustrated on page 84 of the manual. Here it can be seen that a standard score of 5 corresponds directly with the 5th percentile, one of our suggested cut off points.

However, since there is no direct correspondence between our other suggested cut off, the 15th percentile and an equivalent standard score, we have taken the 16th percentile point as the upper end of the 'amber' range, equivalent to a standard score of 7.

Specific Editions

What are the main changes between Movement ABC and Movement ABC-2?

The following 3 tables summarise the changes made to the new Movement ABC-2.

The assessment has been reduced from 4 to 3 age bands, with the former age band 2 (AB2) and age band 3 (AB3) being combined to the new Movement ABC-2 AB2. The age range has also been extended upwards and downwards to run from ages 3-16 years.

Brief summary of changes made to AB1: *Now covers ages 3 to 6 years*

Table 2a: Brief summary of changes made to AB1 – now covers ages 3 to 6 years

Task	Movement ABC AB1	Movement ABC-2 AB1
Manual Dexterity 1	Posting Coins	Posting Coins
Manual Dexterity 2	Threading Beads	Threading Beads
Manual Dexterity 3	Bicycle Trail	Drawing Trail 1 *
Aiming & Catching 1	Catching Beanbag	Catching Beanbag
Aiming & Catching 2	Rolling Ball into Goal	Throwing Beanbag onto Mat**
Balance 1	One-Leg Balance	One-Leg Balance
Balance 2	Walking Heels Raised	Walking Heels Raised
Balance 3	Jumping over Cord	Jumping on Mats**

* Altered item: shape of trail has changed

** New item

Brief summary of changes made to AB2 and AB3: Now labelled AB2 and covers ages 7 to 10 years

Table 2b: Brief summary of changes made to AB2 and AB3 – now labelled AB2 and covers ages 7 to 10 years

Task	Movement ABC AB2	Movement ABC AB3	Movement ABC-2 AB2
<i>Manual Dexterity 1</i>	Placing Pegs	Shifting Pegs by Rows	Placing Pegs~
<i>Manual Dexterity 2</i>	Threading Lace	Threading Nuts on Bolt	Threading Lace^
<i>Manual Dexterity 3</i>	Flower Trail	Flower Trail	Drawing Trail 2*
<i>Aiming & Catching 1</i>	Two-Hand Catch	One-Hand Bounce and Catch	Catching with Two Hands
<i>Aiming & Catching 2</i>	Throwing Beanbag into Box	Throwing Beanbag into Box	Throwing Beanbag onto Mat**
<i>Balance 1</i>	Stork Balance	One-Board Balance	One-Board Balance
<i>Balance 2</i>	Heel-to-Toe Walking	Ball Balance	Walking Heel-to-Toe Forwards
<i>Balance 3</i>	Jumping in Squares	Hopping in Squares	Hopping on Mats+

Altered items:

- ~ New start position/layout
- ^ Lacing board now longer
- * Shape of trail has changed
- ** Mat with target now used instead of box
- + Mats used for this task

Brief summary of changes made to AB4: Now labelled AB3, covering ages 11 to 16 years

Table 2b: Brief summary of changes made to AB2 and AB3 – now labelled AB2 and covers ages 7 to 10 years

Task	Movement ABC AB2	Movement ABC AB3	Movement ABC-2 AB2
<i>Manual Dexterity 1</i>	Placing Pegs	Shifting Pegs by Rows	Placing Pegs~
<i>Manual Dexterity 2</i>	Threading Lace	Threading Nuts on Bolt	Threading Lace^
<i>Manual Dexterity 3</i>	Flower Trail	Flower Trail	Drawing Trail 2*
<i>Aiming & Catching 1</i>	Two-Hand Catch	One-Hand Bounce and Catch	Catching with Two Hands
<i>Aiming & Catching 2</i>	Throwing Beanbag into Box	Throwing Beanbag into Box	Throwing Beanbag onto Mat**
<i>Balance 1</i>	Stork Balance	One-Board Balance	One-Board Balance
<i>Balance 2</i>	Heel-to-Toe Walking	Ball Balance	Walking Heel-to-Toe Forwards
<i>Balance 3</i>	Jumping in Squares	Hopping in Squares	Hopping on Mats+

Altered items:

- ~ New start position/layout
- ^ Lacing board now longer
- * Shape of trail has changed
- ** Mat with target now used instead of box
- + Mats used for this task