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A Critique of Running Records of Children's Oral Reading

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### Abstract

Running records of children's oral reading are commonly used to assess children's reading and to make decisions about the types of reading instruction that children require. This paper critiques recent guidelines on the use of running records and questions the value of this assessment technique. The guidelines are unclear about whether running records should be used for beginning and fluent readers. There are difficulties in making comparisons between running records taken on different texts, and running records do not assess comprehension. The paper argues that the analysis of oral reading errors is a time consuming procedure that may provide misleading information about the type of instruction that would most benefit a particular child.

**KEYWORDS: READING, ASSESSMENT**

### A Critique of Running Records

Running records of oral reading are the most commonly used assessment technique for children in the first years at New Zealand primary schools. Teachers spend a considerable amount of time recording and analysing the running records of individual children. The results of running records are used to organise children into achievement based reading groups and to select books of appropriate difficulty level for children to read. Information from running records is also used to decide on the type of reading instruction to be provided to individual children. For low progress readers, the results of running records after a year at school are an important determiner of selection for Reading Recovery.

Being able to take a running record is almost a hallmark of being a New Zealand primary school teacher. Students at New Zealand teacher education institutions appear to spend more time learning about running records than they do any other assessment technique. Many teachers have attended in-service courses about running records and much has been written about how to record and analyse running records (see e.g. Clay, 1985, 1993). This article will focus on the two most recent books on this topic: “Running Records for Classroom Teachers” by Marie Clay (2000) and “Using Running Records” by the Ministry of Education (2000).

Running records were originally developed by Marie Clay from the studies of early reading that she conducted in the 1960s (see e.g., Clay, 1967, 1969). The technique can be regarded as a simpler form of Miscue Analysis, a method of analysing oral reading developed by Ken and Yetta Goodman (Goodman, 1969; Goodman & Burke, 1972). When taking a running record, a teacher listens to a child reading a passage of text and records what the child does. Words read correctly are

marked with a tick on a recording sheet. Standard conventions are used to indicate other oral reading behaviours such as incorrect responses, repetitions, omissions, and self-corrections (where a child corrects a previous error). After the reading behaviour is recorded, the teacher calculates the child's error ratio, accuracy rate, and self-correction ratio. Each incorrect response is examined and marked according to whether a child was influenced by meaning, structure, or visual information when making the error. The teacher then interprets the overall pattern of results for the running record to make an evaluation of the child's reading behaviour. (For more information about the procedures used for running records see Clay, 2000, and Ministry of Education, 2000).

The widespread use of running records and their endorsement by the Ministry of Education would suggest they are a well-proven way of assessing children's reading. However, a closer examination of the procedures and assumptions involved in the use of running records raises a number of concerns about the reliability and validity of this technique. The following discussion of these concerns will examine four main issues: 1) The appropriateness of using running records for beginning and fluent readers, 2) The use of running records to assess accuracy rate, 3) The value of self-corrections, and 4) The analysis of oral reading errors.

### *1. The Appropriateness of Using Running Records for Beginning and Fluent Readers.*

There is a lack of clarity in the guidelines about the suitability of using running records to assess reading at any level. Clay's (2000) guidelines appear to be aimed at all classroom teachers, not just those who are working with beginning or less fluent readers. Clay specifically describes techniques to use when recording running records for older proficient readers who may be reading too fast for a teacher to mark

a tick for each word (see Clay, 2000, p. 9). Later in her book, Clay notes, “if running records are to be used with older readers there should be a special reason for taking them” (p. 25). However, Clay does not elaborate on what such a special reason might be.

The Ministry of Education (2000) states that running records “can be used at almost any stage of reading development” but are “most useful to teachers of readers who are not yet fluent. This includes most students in years 1 and 2 as well as many older readers” (p. 6). However, the Ministry guidelines do not specify which older readers would be considered “not yet fluent”. This group could be interpreted as including all students who are reading below average for their age level. The lack of clear guidance means that schools and teachers may differ in decisions about which students should be assessed with running records.

Running records rely on the assumption that the processes underlying oral reading are the same as those underlying silent reading. This assumption has been widely challenged (e.g., Alderson, 2000; Hempenstall, 1999; Leu, 1982). It is likely, however, that oral reading is more representative of reading for beginning readers than for older, more fluent readers (Rayner & Pollatsek, 1989). Younger children often read aloud, even when reading on their own, and the speeds of their oral and silent reading are similar. There are greater differences between the oral and silent reading of more skilled readers. Hence an assessment of their oral reading is likely to be of limited value for evaluating their silent reading.

### *2. The Use of Running Records to Assess Reading Level*

Although running records are widely used to assess the accuracy of children’s reading, the reliability of this procedure has not been established. There are no published studies on the inter-rater reliability of scoring and analysing running

records. The reliability of various measures of text reading accuracy has been investigated in a number of New Zealand studies (e.g., Kerr, 2002) but these studies used scoring systems that were different than set out in the guidelines by Clay (2000) and the Ministry (2000). Given that reliability is a fundamental consideration for evaluating any assessment instrument, it is surprising that detailed investigations into the reliability of running records were not made before recommending the use of this technique. Investigations need to consider whether inter-rater reliability varies according to the difficulty of the text, the achievement level of the reader, and the teacher's experience with taking running records.

When taking a running record, Clay (2000) emphasises the importance of using standard procedures:

If a teacher claims that a child read a text above the 94 percent level of accuracy, we need to be assured that this had been obtained according to common practice. If this is not true then calculations and comparisons do not have any meaning. This is a very important statement. Teachers want to be able to compare Running Records, one with another. Either they want to know how Johnny's record today compares with his earlier records, or they need to make some teaching decisions about several children and want to compare one reader with another. (p. 10)

It is problematic, however, to compare running records when they have been taken on diverse texts. The readability of particular texts will be affected by many factors including vocabulary, syntactic complexity, and the genre and ideas of the text. To make comparisons between running records, teachers rely on the assumption that texts have

been accurately graded into difficulty levels. This assumption, however, can be questioned because of the imprecise procedures that may have been used when grading books.

Most schools grade their books according to the lists provided by the Ministry of Education (2002) or by the National Reading Recovery Centre (2001). These booklists allocate books to levels on the basis of judgements made by teachers and reading recovery tutors. The judgements may be informed by experience in using the books with children but most of the books are not systematically trialled or assessed with readability formula. The booklists provide valuable guidance for schools wanting to organise a wide variety of books for instructional reading but the allocation of books to specific levels is not accurate enough to provide confidence in the comparison of running records taken on different texts. Indeed there are some differences between the Ministry lists and Reading Recovery lists in the levels that are assigned for particular books.

Another factor that may affect how accurately a child reads a text is whether the child has, or has not, read the passage before. That is, whether the text is “seen” or “unseen”. Clay’s (2000) guidelines are unclear about when teachers should use seen or unseen text when taking a running record. Clay states, “ A classroom teacher would probably select something the child has recently read in class” (p. 8) but then goes on to suggest that “children who are proficient readers can be assessed for a different purpose – to see how they read a new, unseen text revealing a level of achievement (p. 8).” Clay does not specify what determines whether a reader is “proficient”. One interpretation of her guidelines would be that teachers use seen text for low progress readers and use unseen text for high progress readers. However, the rationale for using different assessment procedures for different readers is not clear.

The Ministry of Education (2000) guidelines state, “The text used for a running record will usually be a ‘seen’ text – one that the student has previously read” (p. 13). The Ministry also states that, “when the teacher wants to judge how the student will cope with more difficult material, the text may be one at the student’s current instructional level (or above it) that the student has not read or heard before” (pp. 13-14).

Although the Ministry recommends the use of *both* seen and unseen text (depending on the purpose of the assessment) it appears that teachers may be using *either* seen or unseen text. A survey of 95 Year One teachers in 51 primary schools found that most used seen text for running records but about 20% used unseen text (Education Review Office, 2000). Some teachers initially used seen text and then switched to unseen text once children were reading at a particular level. Wilkinson and Townsend’s (2000) study of four ‘best-practice’ teachers also found variation in the use of seen and unseen text with two teachers using seen text and two teachers using unseen text.

The use of seen or unseen text will affect the accuracy of a child’s reading. Children show a higher accuracy rate on a passage of text that they are already familiar with (Brecht, 1977, cited in Allington, 1984). If teachers differ in their use of seen or unseen text they will be applying different standards in their assessments of children’s reading. Teachers who use seen text will judge children to be at higher levels than teachers who use unseen text. This will affect where teachers place children on graded book levels for instructional reading. Clay (2000) and the Ministry of Education (2000) suggest that children should be placed on books that are read with 90-94% accuracy because this will offer some challenge without being too difficult. However, teachers who consistently use seen text for running records will



promote children more quickly through the book levels than teachers who provide a more conservative assessment of children's reading with the use of unseen text.

An additional point about accuracy rate that merits attention is the unnecessarily complex method that Clay (2000) and the Ministry of Education (2000) suggest should be used when calculating the accuracy rate from a running record. Teachers are instructed to first count the words in the text, and then count the errors. An "Error Ratio" is then calculated. The Ministry of Education gives an example of when a child makes 15 errors in 150 words. The Ministry notes that this can be expressed as the fraction  $15/150$ . "In order to calculate this as a ratio you can turn the fraction upside down (making the reciprocal) to read  $150/15$  (instead of  $15/150$ ) and divide the numerator by the denominator (150 divided by 15), using a calculator for complex calculations. The answer (10) will be the right hand figure in the ratio (1:10)" (p. 21). Having calculated the Error Ratio, teachers must then refer to a special conversion table to work out the accuracy rate.

If teachers follow the guidelines, and have a copy of the conversion table handy they will eventually work out the accuracy rate. But a much easier way to calculate the accuracy rate is to simply divide the number of words read correctly by the total number of words (i.e., for the above example,  $135/150 = 0.9$  or 90%). There is no need for an Error Ratio or a conversion table. Clay (2000) and the Ministry of Education (2000) do not refer to the Error Ratio when discussing the interpretation of running records so it is puzzling that they expect teachers to calculate it as an intermediary step when working out the accuracy rate. This may seem a minor matter but teachers do not have time to work something out in a roundabout way when a simpler approach is all that is required.

Although running records can be used to assess the accuracy of children's reading, they do not provide an assessment of children's comprehension of a passage of text. The lack of assessment of comprehension is not usually a problem for teachers who are working with beginning readers. Most young children who are learning to read in their first language will be reading text that is within their level of language comprehension. If these children can read the words with accuracy, they will generally be able to understand the meaning of the text (Carver, 2003).

Assessment of reading comprehension becomes more important once children begin to read more difficult text. The complexity of the syntax, vocabulary, and ideas in the text may then be beyond a child's level of general language comprehension. In such a case, a child may be able to read the words with accuracy but not understand the meaning of the text

The Ministry of Education (2000) suggests that teachers can assess comprehension after taking a running record by asking children to retell the story in their own words. The quality of children's retelling, however, will depend not only on their understanding of the text but also their skill and confidence with oral retelling. Retellings will vary according to whether the child was reading seen or unseen text. Retellings will also vary according to the type of questions that teachers may ask when prompting a child to respond. The evaluation of retellings is a subjective process and there are likely to be large differences in the judgements made by different teachers.

Additional guidance on evaluating comprehension is available in some of the informal reading inventories that are available to New Zealand teachers (e.g., Nelley & Smith, 2000; Pool, Parkin, & Parkin, 2002). The inventories provide a series of

text passages with accompanying comprehension questions. Unfortunately, however, the materials have not been normed on representative samples of children.

### *3. The Value of Self-Corrections*

A self-correction occurs when a child makes an error and then spontaneously corrects it. Clay (2000) and the Ministry of Education (2000) recommend that teachers calculate a self-correction ratio for every running record. The ratio is calculated by dividing the number of self-corrected errors by the sum of the number of self-corrected errors plus uncorrected errors. (For example if a child makes 5 self-corrections in a total of 20 errors, the ratio is  $5/20$  or 1: 4.)

The Ministry of Education (2000) states:

If the student is monitoring their reading and self-correcting errors, they clearly expect to find meaning and can search for it successfully. A self-correction rate of one self-correction in every five (or fewer) errors suggests that this is happening. A self-correction rate of less than this (for example, one self-correction in every six, seven, or eight errors) suggests that the reader is not monitoring their own reading effectively for meaning and accuracy. (p. 31)

The Ministry does not cite any research to support the use of self-correction rates as an indicator of skilled reading. However, it is probable that the claims stem from Clay's (1969) study of the development of children's reading in the first year at school. Clay found that the top quartile of readers self-corrected 1 in 3 errors whereas the lowest quartile self-corrected only 1 in 20 errors. These results lead Clay to believe that high self-correction rates were an important skill for progress in reading.

Clay's interpretation of her findings has subsequently been challenged. Thompson (1984) suggested that self-corrections may not be a sign that a reader is monitoring his or her reading but an indication that a reader may be responding prematurely to a word, before adequately processing information about the word's identity. Thompson reanalysed Clay's (1969) data and found that her calculations confounded self-correction rates with text difficulty. This occurred because the children in Clay's study all read the same passage of text. A low progress reader may have made the same number of self-corrections as a high progress reader but because the total number of errors was higher for the low progress reader, the self-correction rate was correspondingly lower for the low progress reader.

Share (1990) further investigated self-correction in a reading level design that controlled for text difficulty. He found no differences in self-correction rates between high and low progress readers when they read text at equivalent error rates. Share concluded that there was "no direct support for the widespread view that self-correction is an important determinant of success in reading acquisition" (p. 185).

Given the evidence provided by Thompson (1984) and Share (1990) it is somewhat surprising that Clay (2000) and the Ministry of Education (2000) continue to recommend that teachers calculate self-correction ratios for every running record. The calculation of self-correction ratios appears to provide information of little value for assessing children's progress in reading.

#### *4. The Analysis of Oral Reading Errors*

Literacy educators in New Zealand often recommend that running records should be fully analysed to provide diagnostic information about children's reading (e.g., Lamont, 1998; Smith & Elley, 1994). Clay (2000) and the Ministry of Education (2000) assert that the analysis of errors in running records provides

valuable information about the processes a reader is using, and hence informs a teacher about what type of instruction a child needs. These claims, however, are questionable. A closer look at the recommendations of Clay and the Ministry of Education reveals that the analysis of errors in running records is problematic and may provide a misleading portrayal of a child's reading.

Clay (2000) and the Ministry of Education (2000) suggest that teachers examine the errors that a child makes in a running record and decide whether the occurrence of the error was influenced by the child's attention to the meaning of the text, the structure (syntax) of the sentence, or visual information from the print. The letters MSV (for meaning, structure, visual) are written next to each error in a column on the running record. Teachers circle the letter(s) to indicate which source(s) of information they believe to have influenced the error. Self-corrections are also analysed, first according to information that may have led to the initial incorrect response, and then according to the information that may have resulted in the correction. After individual errors and self-corrections have been analysed, an assessment is made of the overall pattern of the reader's use of meaning, structure and visual information.

Leu (1982) noted that the analysis of oral reading errors relies on a number of assumptions, all of which can be challenged. He lists the assumptions as follows:

1. A portion of oral reading behaviour (the errors that readers make) is used to infer the nature of oral reading processing.
2. The nature of processing during oral reading (a relatively infrequent classroom task except at beginning levels) is used to infer the nature of processing during silent reading (a far more frequent classroom task).

3. The nature of silent reading processing is used to infer appropriate instructional methodology for individuals and groups of individuals. (p. 431)

Leu also noted that the frequency of particular error types will be affected by passage difficulty. If children are reading difficult text they will make more frequent errors, and be more likely to lose the meaning of the passage than if they are reading easier text (Biemiller, 1979). Hence errors made when reading difficult text are less likely to reflect the use of meaning and structure than errors made while reading easier text.

The Ministry of Education (2000) suggests that taking running records on more than one level of text difficulty will “provide a more comprehensive and reliable analysis of any student’s reading behaviour” (p.7). However, the Ministry provides no information about the effect of text difficulty on errors, and the need for teachers to take account of this when evaluating running records taken on text of different difficulty levels. The examples of interpretation provided in the Ministry guidelines all show teacher judgements based on a single running record for each child. The Ministry suggests that teachers refer to Clay (2000) for advice about taking running records on texts at more than one level of difficulty for a reader. Clay recommends that three running records be taken for each child, one on “easy” text (95 –100 % accuracy), one on “instructional” text (90 – 94 % accuracy) and one on “hard” text (80 – 89 % accuracy). As with the Ministry, however, Clay provides no advice on how to interpret patterns of error behaviour in relation to the difficulty level of the text for a particular reader.

Another problem with the guidelines of Clay (2000) and the Ministry of Education (2000) are that they serve to undervalue the importance of attention to

visual (grapho-phonetic) information in reading. This problem occurs because the guidelines state that teachers should circle V to indicate use of visual information if there is even a small visual resemblance between the error and the correct word. Clay recommends that V be circled if visual information from the print influenced “*any part* [italics added] of the error” (p. 21). The Ministry says to circle V if the teacher can answer yes to the following question: “Did the child use *some* [italics added] of the features of the print? Was what the child read aloud related *in any way* [italics added] to the visual information from the printed words?” (p. 22).

Following these guidelines provides a misleading picture of a child’s reading. A child who has difficulty decoding some words may still be assessed as making effective use of visual information if there is any visual connection between the child’s errors and the correct words. The shortcomings of this approach are seen in the example of an interpretation of a running record provided by the Ministry of Education (2000). The Ministry book features only one full example of a completed running record that a teacher has scored and analysed. The running record contains eight errors, two of which are self-corrected. A summary of the error analysis appears in Table 1.

Table 1 shows that the teacher indicated visual information was used in five of the six errors that were analysed. (No sources of information are circled for the child’s attempt of “wa” for “with”. Although it appears that the child was endeavouring to say the initial sound of the word, the Ministry claims this is “certainly not an attempt to sound out the printed word ‘with’ ” [p. 25].) The teacher interprets the pattern of errors in the running record as showing that the child “was using meaning and visual information effectively but was having difficulty with structure” (2000, p. 28).

It is incorrect, however, to state that the child was using visual information effectively. The errors in the running record show only partial use of visual information. To use visual information effectively a child needs to make full use of the grapho-phonetic information available in the spelling of a word. When necessary, the child should also make use of meaning and structure information to ensure the word is correctly identified (see Tunmer & Chapman, 1998).

An erroneous interpretation of a running record can lead to ineffective ideas about what instruction is required. In the above example, the teacher decided that the child “needed to become more familiar with some common English-Language tenses and their associated word endings in an oral language situation. She planned to provide activities for this kind of talk in a small-group setting” (p. 28). A more effective approach to improving the child’s reading would be to provide instruction on how to decode words by making full use of grapho-phonetic information (see Adams, 1990; Honig, 2001; Pressley, 2002). This would also have benefits for the child’s syntax by allowing the child to learn from the examples of tenses and associated word endings that occur in written language.

The reason that Clay and the Ministry of Education claim visual cues are being used effectively when a child is using only partial visual information probably stems from Clay’s beliefs about the reading process. Clay (1991) considered that “meaning is the most important source of information” (p.292). Meaning is said to allow a reader to make predictions about the upcoming text. Visual information can then be sampled to confirm the reader’s predictions. According to Clay, fluent reading can be described as follows:

In efficient rapid word perception the reader relies mostly on the sentence and its meaning and some selected features of the form of words.



Awareness of the sentence context (and often the general context of the text as a whole) and a glance at the word enables the reader to respond instantly. (p. 8)

Contrary to Clay's ideas, research has found that readers make extensive use of visual information. Skilled readers do this with great speed and efficiency, perhaps giving the impression that they are only sampling the text. In reality, however, they are processing nearly all of the available visual information (Adams, 1990; Ehri, 1998). Beginning readers who pay attention to print detail are likely to show higher progress than children who depend on meaning and structure cues (Biemiller, 1979; Nicholson, 1993). Encouraging children to attend to visual information assists their reading because "the most effective way to become automatic with a particular word is to initially decode it – to consciously process both the letter patterns and the sounds the first few times it is read" (Honig, 2001, p. 63).

### Conclusion

This article has raised a number of concerns about the use of running records. These concerns include: (1) a lack of clarity in the guidelines about whether running records are appropriate for beginning and fluent readers, (2) problems with the comparability of running records taken on different texts, and the lack of assessment of comprehension, (3) the absence of evidence to support the use of self-corrections as an indicator of effective reading, and (4) erroneous interpretation of the meaning of oral reading errors.

Taken together, these concerns raise serious doubts about the use of running records as set out in the guidelines by Clay (2000) and the Ministry of Education (2000). Running records that are carried out according to these guidelines are time-

consuming and may provide misleading information about children's reading. It is important to note, however, that it may be of value to use a simplified form of running records to monitor children's progress in reading. Children need to be reading books that are at an appropriate difficulty level – not too easy, nor too hard. Books at the right level of challenge will provide children with opportunities to develop word identification and vocabulary skills. More research is needed on what is an optimal level of difficulty but the most commonly accepted guidelines are that children should be reading books with an accuracy rate of 90 – 95 % for instructional reading (see Allington, 1984, Honig, 2001). Decisions about whether a child can read text at a particular level should be made by assessing accuracy on unseen text. When placing children on book levels, teachers need to be aware of the variability between texts that published guidelines (e.g., National Reading Recovery Centre, 2001; Ministry of Education, 2002) have graded as being of the same level.

Taking a simplified running record only requires a teacher to give a tick for each word read correctly (including self-corrections) and a cross for each error (including omissions). It is not necessary to record the words a child actually said when making a wrong response, a repetition, a substitution, or a self-correction. If teachers do not need to devote attention to recording these types of errors they are more likely to make a reliable recording of which words were correctly identified. Accuracy rate can then be easily calculated by dividing the number of words read correctly by the total number of words in the text. There is no need to calculate error or self-correction ratios.

The problems associated with the analysis of errors in running records mean that this practice cannot be recommended. If a teacher really wishes to carry out an error analysis, it is vital that they give more attention to how a child appears to be

using visual information. It is not adequate to circle V to indicate use of visual information when there is any visual resemblance between the error and the correct word. At the least, a teacher should note from which part of the word a child is making use of visual information – the beginning, middle or end. Teachers should examine what the error tells them about a child's knowledge of letter-sound correspondences and spelling patterns.

It is time to reappraise the widespread use of running records as the main assessment of children's reading in the first years at school. There is a need for other assessments that link more directly to what it is that children require for fluent reading. Teachers need to have access to carefully constructed tests of reading accuracy and comprehension, as well as measures of grapheme-phoneme correspondences, phonological awareness, and word recognition. The use of such tests will provide teachers with crucial information about what children currently know and what they still need to learn to become successful independent readers.

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Table 1

*Summary of the Example of Error Analysis from “Using Running Records” (Ministry of Education, 2000, pp24-25)*

Word	Error	Information Used	Self-Corrected?	Information Used in Self-Correction
walking	walked	[M]S[V]	Yes	M[S][V]
Thump	(no attempt)			
dropped	d	MS[V]		
with	wa	MSV	Yes	MS[V]
children	childrens	[M]S[V]		
galloped	(no attempt)			
wake	walk	M[S][V]		
woke	wake	[M]S[V]		