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Te Akō mo Te Ora

# Acts of Teaching

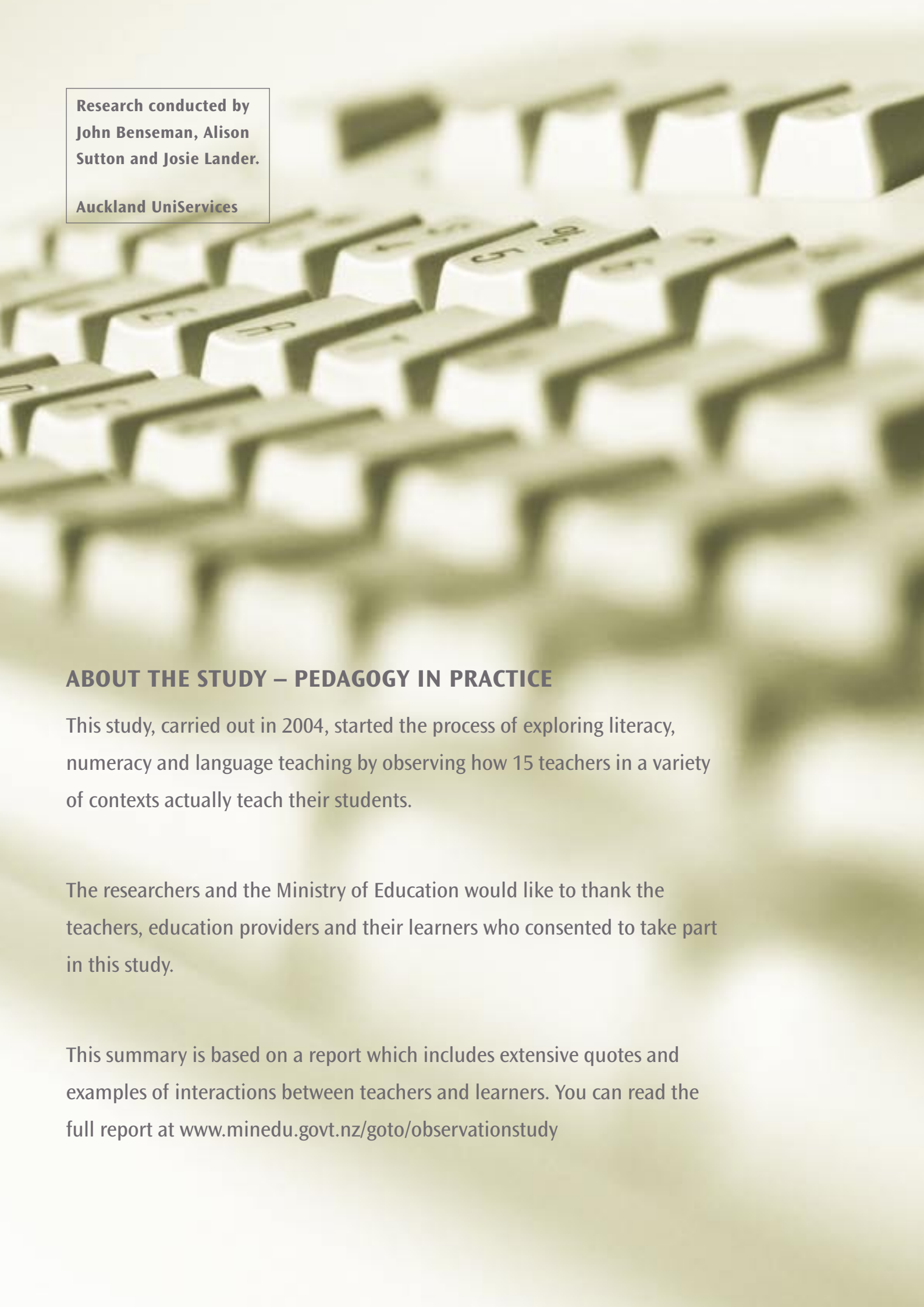
An observation study of New Zealand adult literacy, numeracy and language teachers



MINISTRY OF EDUCATION

Te Tāhuhu o te Mātauranga





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## **ABOUT THE STUDY – PEDAGOGY IN PRACTICE**

This study, carried out in 2004, started the process of exploring literacy, numeracy and language teaching by observing how 15 teachers in a variety of contexts actually teach their students.

The researchers and the Ministry of Education would like to thank the teachers, education providers and their learners who consented to take part in this study.

This summary is based on a report which includes extensive quotes and examples of interactions between teachers and learners. You can read the full report at [www.minedu.govt.nz/goto/observationstudy](http://www.minedu.govt.nz/goto/observationstudy)

## KEY POINTS SUMMARY

- Generic teaching and classroom management skills play a significant role in literacy, numeracy and language teaching.
- There were not as many deliberate acts of literacy, numeracy and language teaching as expected (either as stand-alone episodes or in response to errors or omissions).
- Most of the teachers appeared to rely heavily on a limited number of teaching methods.
- There is considerable variation in the amount of direct literacy, numeracy and language teaching occurring in integrated programmes, where literacy is taught alongside or intermingled with a body of technical knowledge.

## THE TEACHERS AND LEARNERS

Most of the teachers had no specific literacy, numeracy or language qualifications or even qualifications related to adult education generally. There was considerable variation in their ability to access professional development, with many of them only able to attend a one or two-day workshop in the previous year.

Eight of the teachers taught on a one-to-one basis, three taught in small groups of between two and six learners and six of the teachers taught in classes of seven or more learners. Twenty six sessions were observed. Of those that had literacy, numeracy or language components, 11 had reading as their main focus; four were focused on numeracy, three on ESOL, one on oracy and one on computers.

Most classes had learners with a wide and diverse range of needs; for example, one class had students relying on finger-counting for their numeracy, through to students working on NCEA Science material.

## ADMINISTRATION

Teaching workloads ranged from seven to 35 hours per week. The average time each teacher spent in preparation varied from five to 16 hours per week.

Achieving unit standards for funding requirements, the need for proficiency in a wide range of subjects and gaps in their knowledge (usually maths) were constraints reported by teachers.

The most frustrating issue the teachers reported was absenteeism which meant that learners lost momentum in their programmes.

## CLASSROOMS AND RESOURCES

Facilities varied considerably, ranging from formal classrooms to cramped rooms in run-down buildings with poor light and ventilation and minimal facilities. Several facilities were converted factory spaces.

All but three of the 15 teachers used a whiteboard as the mainstay of their teaching. The second most frequently used teaching aid was either 'butcher's paper', or notepaper with one-to-one teaching.

Worksheets played a central role in much of the teaching, especially with the less experienced teachers. Eight of the teachers used some form of worksheet – some copied out of commercially-produced workbooks and some constructed by the teacher based on outside texts such as newspaper articles.

All except two of the teachers had access to computers if needed. Only two of the teachers were using computers in the teaching sessions, and this was mainly for typing. There was some use of the Internet and most plan to include it in their teaching in the future. A few also used learn-to-type programmes and various language or numeracy games, but there were no specific Computer Assisted Instruction programmes in evidence.

## TEACHERS' RAPPORT WITH LEARNERS

All of the learning environments observed were positive and supportive and learners were clearly respected and supported. Teachers appeared to help build this environment by:

- being open and inclusive about their own backgrounds, interests and families
- using routines approximating those of adult contexts and always using students' first names
- relating to students' interests, circumstances and experiences
- creating situations for learners to exercise autonomy
- using injections of humour
- providing authentic learning environments and tasks (such as the workplace).

Convincing learners they are capable of completing tasks is clearly an important part of literacy, numeracy and language teaching. No negative feedback or evaluative statements to learners were witnessed.

While the teachers offered considerable support for their learners, there appeared to be little challenge in their interactions with learners – a quality identified by the research literature as necessary for effective learning.

Learners' daily issues and crises often intruded into the programmes and required diversions from planned activities. This was seen by some of the teachers as inevitable, but also necessary in helping learners benefit in the longer term.

## GENERIC TEACHING SKILLS

Most teachers are aware of the value of being learner-focused and encouraging learner participation in planning and curriculum direction. In this study however, teachers were observed talking on average about 50% of the time and often as much as two thirds. About half of the students' replies were single word or very short sentences. This extent of teacher direction was similar to that described in international observational studies.

### Questioning

Questioning is a central part of teaching and underpins most interaction between learners and teachers. However, questioning in the 15 classrooms was dominated by the teachers, and learners' questions formed a prominent part of the educational interactions in only two classrooms.

The great majority of questions from teachers involved simple recall of knowledge. Only a small number of teachers used questions which required a higher level of analysis, such as workplace teachers getting their learners to think about how they would apply their new learning in the workplace.

In group discussions, some teachers tried to include the whole group by directing questions to learners who had not volunteered answers. Other teachers focused their questions on the small number of learners who routinely answered questions.

### Open questions

Open questions are generally preferable to closed ones as they encourage learners to think beyond the immediate and literal and engage in discussion or debate. The researchers observed a greater percentage of closed rather than open questions. To make a significant improvement in learners' skills, tutors need to substantially reduce the number of closed questions they ask.

## Questions to elicit opinions and feelings

There were very few instances of learners being asked their opinions or being asked to express their feelings about topics. Such questions can be important prompts to further discussion and debate – activities that many teachers value highly in their teaching philosophies.

## Responding to learners' answers

Probably the most frequent response from teachers to incorrect or incomplete answers was to simply provide the correct answer. Others re-phrased their questions or asked new ones. The pause following a question was very short.

Only a few of the teachers used the response as a springboard for further learning by trying to understand why the learner had responded incorrectly and then teaching to that error.

## Summative questions

One workplace teacher showed an example of summative questioning. At the end of sessions, she asked her learners what they had learned today and pressed them to identify specific skills or content they considered new. This appeared to be a useful way of indicating closure for the session, prompted reflection or self-assessment, and led to discussion about planning future sessions.

## Facilitative processes observed being used by teachers

'Facilitative processes' are activities used by teachers to help deliver their teaching.

Greeting	15
Overview of session	13
Personal chat/discussions	13
Revision of previous session	11
Planning of future work	10
End-of-session review	9
Administration	5
Goal-setting	3
Karakia	2
Conflict resolution	1
Monitoring	1

## Main types of teaching methods observed being used by teachers

Writing on board/pad	15
Posing questions and answers	15
Feedback/praise	14
Worksheet	13
Pre-teaching and explaining task	13
Modelling	11
Brainstorm	11
Scribing (recording on behalf of learner)	6
Roving and marking	6
Mnemonics	4
Note-taking	4
Journal and ILP writing	4
Demonstration	4
Computer	3
Role play	3
Mind mapping	3
Summarising	2
Lecture/teacher talk (sustained)	2
Facilitating (prolonged) discussion	2
Demonstrating/explaining	1
Game/puzzle	1
Student presentation	1



## GENERIC SKILLS TAUGHT

### Critical thinking

Critical thinking allows learners to analyse assumptions and explore alternative ways of thinking. Critical thinking is a skill often touted as an essential element of literacy, numeracy and language teaching, but only a limited number of examples were found in the study. In two workplace sessions, learners demonstrated critical reading of texts by identifying important omissions in worksheets about the manufacturing processes. These suggestions were noted for feeding back to management.

### Metacognitive skills

Metacognition, or 'learning how to learn' refers to the ability of a learner to be aware of and monitor their learning processes. Research findings show that learners are more likely to apply skills learned to new situations and difficulties if they are:

- taught to analyse their own learning
- given a range of learning strategies and
- encouraged to reflect on what they have learned, and how they have learned.

However only a few examples of teaching metacognition skills were observed – mainly in numeracy.

## TEACHING LITERACY, NUMERACY AND LANGUAGE

### Integrated provision

Seven of the 15 teachers taught literacy, numeracy and language integrated with other subjects. These integrated programmes had much less explicit literacy, numeracy and language teaching than in programmes dedicated to these subjects. There was also considerable variation between integrated programmes in the amount of

literacy, numeracy and language taught. Many teachers in integrated programmes find it challenging to cover their normal curriculum as well as respond to the literacy, numeracy and language needs of their learners.

### Assessment

All of the teachers interviewed used some form of initial or diagnostic assessment of their learners' literacy, numeracy and language skills, but methods varied considerably. For example, one teacher generally starts with an informal chat with the learner about their background and support system. This is followed by a more formal assessment lasting up to an hour and involves reading, spelling, numeracy and comprehension tests.

In some organisations assessments are performed by a designated person, but tutors tended to rely more on their own assessment.

In the workplace programmes, learner assessments had been done in relation to broader company-wide needs assessments.

### Individual learning plans

There was a range of different approaches to individual learning plans. One teacher used individual learning plans to plan her teaching and to demonstrate progress to her one-to-one learners. Another emphasised to her students that the individual learning plans were theirs, rather than the teacher's.

Several teachers said that their students did not have access to the plans, which were not used directly for teaching purposes.

One class teacher incorporated individual learning plans into her teaching sessions by asking the students to review their goals for the past week and then write out a new set for the coming week.

## **Class size**

One major variation among the 15 teachers was whether they taught one-to-one or in small groups or classes. Teaching classes of learners is fundamentally different because of the need for the teacher to cater for the learning and personal needs of diverse learners.

Where there was a degree of homogeneity among the learners, teachers were able to teach to the whole group reasonably well. However in classes with a broader range of needs, teachers resorted to a number of strategies to fully engage the learners, including 'plate-spinning' where the teacher moved from learner to learner, similar to a series of very short one-to-one sessions.

In most cases, one-to-one teaching was distinctive for its teaching intensity. Although learners may only be receiving one or two hours of tuition per week, there may be much more of an opportunity for them to be taught in a very individually focused and personalised way. Three of these teachers also made considerable use of 'homework' between sessions.

## **Authenticity and choice of curricula**

The literature review indicates that learning is enhanced when programmes are linked to the reading and writing needs that learners experience in their lives.

Most sessions focused on real life literacy activities, augmented by worksheets.

Teachers used teaching content that was authentic and which they considered would be of interest to their learners. Content had been suggested by the learners in only one instance during the observations.

On three occasions the researchers witnessed the spontaneous emergence of topics of interest to the learners that were different from those planned by the teachers. In each case the energy level of the group rose, as did participation. However the teacher then brought the learners back 'on task' to the pre-planned content and learner participation dropped.

Workplace programmes provided the best examples of highly contextualised teaching content. The workplace teachers not only used industry-related content, but also constantly asked learners to relate their answers to their work and gave examples derived from it. One teacher took the learners down to the production line after the session to ensure that they understood the processes that had been discussed.



## Authenticity and level of content

One teacher attempted to base reading material for a session on a learner's hobby. However the vocabulary was clearly beyond him and reduced the usability of the material.

A second teacher tried to balance the topical interest of newspaper stories of a manageable reading level while still providing challenge in her teaching to the learners' needs.

## Seizing the 'teaching moment'

The researchers witnessed a number of instances where 'teaching moments' were generated providing the teacher with an opportunity to focus on a specific learning need or interest. These opportunities were generally missed.

## Duration and intensity of tuition

Research literature indicates that learners benefit most from high-intensity or long-duration programmes, rather than low-intensity or short-duration programmes.

Some learners attending one-to-one programmes for one hour per week received very intense, challenging teaching while some full-time learners received little challenge or teaching focused on their specific needs. Several teachers commented that students with social as well as learning needs were likely to require longer duration of teaching.

In some cases, team teaching helped increase the teaching intensity, while another teacher talked about how she used a video to increase the intensity.

## Fluency

There were very few instances of teachers providing sustained activities aimed at achieving reading fluency. Some examples of fluency in numeracy were observed where teachers gave extra opportunities for learners to practise newly-acquired skills.

## READING

There was wide variation in how reading was taught, ranging from one-to-one sessions where the entire session comprised skill-teaching and practice of new skills, through to group sessions with little or no direct teaching of reading.

The teaching of reading generally took a number of forms in both one-to-one and groups:

- reading aloud, with the teacher responding to miscues in various ways
- silent reading, followed by teacher questions (usually of comprehension)
- teacher reading aloud while learners follow the text, followed by comprehension questions
- explicit teaching of a skill, followed by a series of written exercises
- independent reading followed by written questions and group discussion of the answers.

The degree of teachers' interventions and reactions to learners varied considerably. Some teachers managed the teaching process proactively (inserting questions, micro-teaching of points arising). Others intervened less often. In nearly three hours of teaching, one teacher undertook no explicit reading-related activities.

The 25 reading episodes observed were classified into five general components of reading to give a broad indication of the areas covered by teachers.

## Generic reading components observed being covered in teaching episodes

Vocabulary	9
Comprehension	8
Alphabets	3
Fluency	3
Grammar/language form	2



## Techniques observed being used for teaching reading

Reading aloud	7
Clarifying meaning of text	6
Word analysis	5
Querying meaning of words	5
Recall/review	4
Skimming	3
Using context for meaning	3
Silent reading	3
Summarising	2
Cloze procedure	2
Repeat reading	1

Several teachers observed did not specifically teach any reading, writing or numeracy skills.

### Phonemic awareness

Phonemes are the smallest units of sound distinguishing one word from another. Of the 15 teachers, about a third used awareness of phonemes in their teaching. In most cases where learners made errors, the teachers simply supplied the correct word.

Probably the most intensive teaching of phonemic awareness occurred in several one-to-one sessions where the teachers responded immediately to learner miscues and taught to the errors.

### Responding to reading miscues

Miscues are important because they show the teacher where a learner is having difficulties and can therefore focus teaching attention. Teaching moments offered by miscues were often missed by teachers.

### Comprehension

The little explicit teaching of comprehension witnessed usually involved teachers using the learner's understanding of the context to correct mis-pronounced words.

There were very few instances of teachers asking questions involving broader interpretations of texts and their meanings.

## Grammar and pronunciation rules

Three teachers introduced rules governing language and pronunciation that learners could apply to unknown words in the future. One teacher discussed sentence components with her student and another asked for examples of nouns, common nouns and proper nouns.

## NUMERACY

Of the five numeracy sessions observed, four taught number functions and three involved measurement.

### Specific numeracy techniques observed being taught

Estimating	5
Calculating	5
Measuring	3
Worksheet	2
Using calculator	2
Interpreting data	1
Counting	1
Using basic facts	1

Numeracy teaching was probably more structured and consistent overall than the teaching of literacy or language. A typical session involved the teacher demonstrating and explaining a particular mathematical process, then setting an exercise based on the demonstration. One teacher encouraged learners to do the exercises independently, and then discussed their answers in small groups or pairs. The groups then marked their work with the teacher writing the learners' answers on the whiteboard, prompting debate when answers differed among the group members.

In some sessions observed, there was no group teaching at the beginning; these teachers handed out worksheets and then worked with learners individually.

Teachers thought it important to make the examples as visual as possible, use teaching aids, always relate examples to the 'real world' and consolidate skills through revision and practice (comparable to reading fluency).

Teachers frequently focused their teaching on specific errors in the numeracy sessions.

## SPELLING

In most cases where spelling was being taught, it occurred incidentally as part of reading, writing or even maths sessions. Five of the teachers were observed teaching spelling.

### Techniques observed being used for teaching spelling

Syllabification	4
Recognising patterns	3
Sounding out	2
Constructing word families	2
Use of dictionaries	1
Word-games	1

There were very few instances of the teacher making the learner produce the answer through phonemic prompts (such as identifying initial sounds in a word or identifying known words with similar sound components).

Several teachers ran activities aimed at building up spelling skills (including testing of word lists given the previous week and learnt by a student in their own time).

## WRITING

Writing skills observed being taught were:

Proofing	3
Planning writing	2
Drafting	1
Syntax	1
Punctuation	1

A number of the teachers commented that their learners' writing skills were noticeably lower than their other skills (including reading) and that they found it difficult to make an impact on this skill. They also commented that they did not find it easy to incorporate writing into their teaching and it was often missed out.

Several of the teachers said that they consciously planned to include at least some writing in their sessions, even when the sessions were predominantly on another area such as numeracy.

At the end of each session, a one-to-one teacher asked her learners to write down briefly what they had covered in that session and any insights they had gained from it. This was then read aloud as a warm-up activity in the next session and helped identify learning needs for subsequent sessions.

A typical writing session in an integrated class involved the literacy teacher showing how to write an e-mail. In another session on letter-writing, the literacy teacher produced an example of a letter cut into its main components, which the learners were asked to assemble into the correct order.

## ENGLISH FOR SPEAKERS OF OTHER LANGUAGES (ESOL)

No ESOL-specific classes were observed but learners with ESOL needs were seen during the observations. In many cases, there did not appear to be significant differences between how ESOL and non-ESOL learners were taught. ESOL students were often seen as very capable readers who mainly needed speaking practice. One teacher made conscious efforts to learn and incorporate vocabulary from the first languages of learners.

## ORACY

The researchers saw six sessions involving explicit teaching of oracy skills. Like writing and spelling, teachers tended to intersperse oracy teaching throughout their other teaching, however oral skills were observed being explicitly taught in several sessions. For example, one teacher explored oral delivery techniques (Unit Standard 8828) as part of a bridging education course.

## **SUMMARY OF INTERNATIONAL LITERATURE FINDINGS**

All of the research reviewed for this study points to the importance of the relationships tutors build with learners. Researchers reported that tutors were very learner-centred and supportive in their dealings with students, which is considered to be very important with learners with high levels of need. Conversely, the actual teaching that took place was predominantly teacher-directed, with minimal learner input or participation being observed. Teachers perceived themselves as being much more learner-directed in their teaching than was observed.

A number of studies discussed how provision may not contain as much explicit teaching as learners' needs might warrant, and in particular little direct teaching of reading was reported.

Literacy, numeracy and language teachers need considerably more training and professional development in these key teaching skills.

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