

PROGRAMMED LITERACY

Adapted for Australian Languages (Proposed Version)

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PREFACE

"The first reading material a child should be required to read is what he himself has written." (Dr. Tommy R. Anderson) The above summarizes the basic principle behind programmed literacy: the involvement of both teacher and student in a simultaneous process of reading and writing, each motivating and inspiring the other.

The method was originally called "Programmed Reading" but that was inaccurate since it is writing that is used to teach reading. Hence the change to "Programmed Literacy". The method also involves "creative writing", and this term has often enough drawn criticism. Perhaps the problems involved are what is meant by "creative" and by "writing". In this method "creative" implies that the student creates something for himself: firstly the written word, but also an understanding of how writing differs, can differ, should differ from speech, and, further, an understanding of how one actually learns--discovering the magic of discovery itself. "Writing" refers to either the actual act of writing something down, but also what has been written; it is the first meaning that is emphasized here. It is not expected that works of literary genius will result from a well-taught program. It is expected that the "creation" of the "written word" will highly motivate the "reading" of the "written word". It is a fair expectation that if a student is not interested and motivated to read what he himself has written, then he may not be interested or motivated to read what others have put down either.

Once each student has mastered the writing and reading of all the sounds of his own language, it is not expected that each will go on as "creative writers" in the tradition of a Shakespeare; that obviously takes special interest, talent, time, and genius. However, some "writers" with sufficient motivation may discover the power and magic of the printed word, and it is these who will provide the "readers" with the stories, pamphlets, translations, and other literature necessary to keep the skills of reading alive and well within the community.

It should be added that the method described herein was originally developed for areas of the Philippines that were too poor to produce and/or pay for primers and books. Teachers were supplied with complete and explicit lesson plans, down to the games to be played and illustrations necessary, and students with an adequate supply of sharpened pencils and lined paper. Primer production is much more prolific in the N.T., and such primers would enhance this kind of program as secondary but important motivational material. However, teachers from areas with only recently-introduced bilingual programs need not despair of a lack of the printed word. The success of the method in rural areas of the Philippines should give some reason for hope in the Australian bush.

THEORIES AND PRINCIPLES BEHIND THE METHOD

Programmed literacy is a relatively new method designed to teach reading, pronunciation, and writing simultaneously. It operates on the principle that the teaching of reading and writing is analogous to computer programming: facts are presented in an orderly graded series, with the simplest elements first, further steps building on the basic elements.

"The Programmed Method of Reading" (as it was originally called) was developed by educational psychologists during the later part of the 1950's at some of America's top universities, notably Harvard and Princeton. The particular offshoot of the method described here was developed by the late Dr. T. R. Anderson of the University of California at Los Angeles (UCLA) while working for the Ford Foundation at Philippine Normal College (PNC) in Manila.

1. The first letters taught are those that are easiest to write, read, and reproduce. Depending on the needs of the orthography developed for any given language or dialect, such letters are those made up of lines and circles (l, o, p, b, d, i, a, t).

2. However, the overriding aim of building up a large vocabulary of meaningful words and sentences must be considered in order to determine the order in which letters are taught. Thus, the next letters taught are those most crucial to the dialect or language, allowing the student to form simple sentences, questions, and exclamations. These will include letters (or digraphs) that come up again and again in functors (grammar words, like English the, this, that, these, those, there, they, their, them or who, what, which, when, where, why) or basic vocabulary (all, tall, small, wall; sit, hit, bit, lit; keep, sleep, deep). In certain instances it may be necessary for such letters to take precedence over the "easy to write" letters, such as (a) if sentences or questions could be formed sooner by postponing the easier letters, or (b) if the introduction of letters similar in shape (p, b, d) proves to be an insurmountable difficulty.

3. Once the students have a command of questions and statements and a fairly large vocabulary, the remaining letters and symbols are taught, from the most to the least productive. In the case of digraphs it must be borne in mind that the individual letters forming the digraph must be taught first (e.g., n then g, before ng). N.B: In considering a practical orthography one does well to choose characters that individually have value in the spelling of the language. For example, in representing the lamino-palatal stop it is not practical or useful to choose the digraph 'ch' if neither 'c' nor 'h' are otherwise used in the language, but 'tj' or 'ty' would be better choices if either 't' and 'j' or 't' and 'y' occur in the orthography.

4. The method does not require the pupil to read or reproduce anything he has not yet learned. In this way the pupil can read and write simple sentences composed of words made up of as few as seven letters (regardless of the length of words in syllables).

5. THE METHOD REQUIRES THE PUPIL:

- to think creatively from the first day of class, to play an active role in the learning process;
- to discriminate between the reading, writing, and pronunciation of words by the end of the second lesson;
- to command from seven to twelve crucial letters (depending on the language) by the end of the second week in order to read, write, construct, pronounce, or take dictation of simple sentences composed of those letters;
- to learn the difference between and use of small and capital letters simultaneously;
- to see the grammar and structure of his language in the context of sentences from the very beginning, rather than wait for a command of the full alphabet.

6. THE METHOD REQUIRES THE TEACHER:

- to act as a model and guide, a source of reinforcement; but with more active participation on the part of each student;
- to do less correcting and grading since the pupils have their exercises to do and to correct by themselves (the teacher only need go around the room during testing time to advise and to encourage);
- to produce interesting and enlightening visual aids and/or pictures to gain the class's attention and interest and to enhance the learning process.

7. IN GENERAL, we are working with actual reading--carefully--from the very beginning; reading is reinforced and motivated by writing the characters which aids in implanting such skills as discrimination, recognition, matching, comparison, and contrast. We do not expect the children to have to read or reproduce any letters or words which they have not been thoroughly acquainted with. (On occasion a few simple sight words may be introduced which the students can be trained to react to (not necessarily read or write).)

The teacher should be aware that as the method progresses, after the first few lessons have been taken, the students have built a large repertoire of skills (such as drawing circles and lines, eye movements from left to right, discrimination of sizes and shapes, pronunciation correspondence to written symbols, use of small and capital letters, vocabulary development at a rapid pace, and so on). Hence, as each new letter is taught, the previous skills should be reviewed, incorporated as much as possible into the teaching of the new letter. For example, drawing circles occurs with "o, b, d, p"; drawing lines with "l, b, i, k, t, d"; drawing diagonal lines with "A, y, Y, N, M, K, k" and so on. The teacher should have a clear idea of the skills that have been taught and are being taught, and use the students' knowledge to build up upon.

We start with letters, but from the first day we also deal with words. Syllables are not stressed or emphasized, although they are used to reinforce, review, or exercise. In a very short time we arrive at simple sentences. The emphasis of this method is towards the more realistic and more complex structures of actual speech. It has been found that students can cope with this approach, and that it is not difficult for them to keep up. However, the teacher must judge from the reaction of the majority of the pupils if he or she is proceeding too fast or too slow. By all means a challenge should be presented to the students; but the challenge should not be so great as to lead to (the teacher's or the students') frustration. Generally, it is found that first graders are capable of accepting greater challenge than is expected of them. With adults, however, acceptance of challenge depends to a great degree upon their motivation. Teachers can check results by: (a) daily review, (b) visual aids and games to make the lessons interesting, (c) dictation exercises given frequently, and (d) individual attention distributed to each pupil at some time or other.

Contrary to popular belief, a student learns in spite of his mistakes, not from them. It is not the aim of this method to corner a pupil into more and more difficult situations until he finally makes a mistake. The program cannot be written too easy--though it can be written without challenge. The ideal situation is that the class will score high, not because tests or assignments were obvious or easy, but because they presented both interest and challenge to the class as a whole. Above all, the pupil must grasp all the stages intuitively. Rules are not to be given by the teacher as crutches for the learning process. Instead, the pupils should be made to develop and see the rules and to explain them as a test of their learning and as an additional challenge to stimulate their interest.

FIVE THINGS TO CONSIDER ABOUT THIS METHOD

1. As much as possible, each sound is to be taught on its own--without a name--in relation to the letter(s) it represents. Obviously this is feasible with continuants (such as m, n, ny, ng, w, y), and not so with stops (p, t, ty, k), since one almost invariably pronounces a vowel of some kind. Further, in a large number of Australian languages, some sounds can occur in only certain parts of the word (much like English ng and h) and would sound quite strange if uttered in isolation or drilled in unrealistic syllables. Nonetheless, the principle of sound-symbol correspondence should be followed as closely as possible. One method utilized in the Philippines was to practice a sound "silently" (all parts of the mouth in position for pronunciation while concentrating on the shape of the letter or digraph)--and then to identify the sound and symbol in syllables and words presented by the teacher or suggested by the students.

Eventually and invariably sounds must be given a name, such as /ele/ in Spanish, /el/ in English, or /la/ as in Philippine languages. But if the sound-symbol correspondence can be practiced silently and orally in its "pure" pronunciation, without any accompanying vowel sounds, the students should be able to read it in any position of a word or syllable. This avoids the common error of reading "ul" as /u-la/ or /yu-el/ or the like.

The pronunciation, reading, and writing of syllables--- or, where necessary, realistic couplets and minimal pairs--- are then given as follow-up drills once the pronunciation, reading, and writing of each particular sound is mastered. It is crucial to start from the very beginning with all sorts of mixed syllables (consonant first and last) and three-letter syllables (bal, lab, lal, bab)---provided the structure of the language allows such occurrences and combinations.

2. Teach thoroughly before going on to the next step or the next lesson. Every phase of pronunciation, recognition, reading and writing, drill and review must be covered and grasped.

However, there are times when the class seems to get bogged down, due to a difficult letter or digraph, or due to difficulty with some sentences. This is to be expected. The teacher may, in such cases, proceed with the next step, because in going on one always drills and reviews the previous letters, syllables, words, and sentences anyway. For example, if the class has difficulty with drawing "y", it would not matter. Go on to the next letter, but be sure to give review words, syllables, and sentences with "y". Sometimes the novelty of a new letter is a spur to learning the past letters better by relieving boredom or renewing interest and motivation.

3. Use words composed of the letters at hand. As the program progresses, more and more words and sentences become possible. However, if in a creative part of the lesson a pupil suggests a word that cannot be spelled because a letter or two have not yet been taken, it is suggested that the teacher write the unknown letters on the board with blank spaces for those known, letting the pupils fill in the missing letters. This adds challenge and interest to the lesson. For example, if someone suggests a word "kamuwa" and "m" and "w" have not yet been taught, the teacher could write "___ m ___ w ___" on the board and let the pupil(s) fill in the blanks.

4. Reinforce both capital and small letters simultaneously. In this way, transfer to sentence writing as well as proper names can be made very soon in the program. In the beginning lessons, always drill three possible spellings, e.g. "lipa, LIPA, Lipa".

5. Individualize the method for yourself and your class. Every teacher has his or her own method and personality. Some tend to be formal and strict, others are easy-going. Some use many and colorful visual aids; others make do with the blackboard and things immediately at hand. Since this method is new to Australian languages, complete lesson plans are not available, although a sample lesson plan will be presented below. Hence, the biggest task will be to determine if programmed literacy is practicable in your area and for your language; and, if so, developing a complete "program".

IS PROGRAMMED LITERACY POSSIBLE IN MY AREA?

It should be stressed that if a literacy program is working in your area, no matter what method is used, a switch to any other method is unnecessary and potentially unwise.

Secondly, while this method worked very well in the Philippines, some languages may not be "suited" for it in Australia. For example, due to long and complex sentence structures in languages such as Tiwi and Yanuwa, it is felt that Programmed Literacy cannot be effectively used since the students are required to write first what they will read (I owe these observations to Marie Godfrey and Jean Kirton of S.I.L.).

Thirdly, it is no easy task to develop a "program" for any given language. While some of the principles have been discussed here (p. 2), it will take a sound linguistic understanding of the language to determine the order of the letters taught, and a fluent command of the language to make the program operational. Tentative and/or experimental programs might be tested and modified based on simplicity, effectiveness, and student reaction. The role of the Aboriginal teachers and teaching assistants in the development and teaching of such a program is seen as crucial.

A TYPICAL LESSON PLAN FOR EACH LETTER

1. Review of previous material (letters, syllables, words, and sentences).
2. PHONICS--drill on the new sound-letter correspondence; sound only, if possible, otherwise realistic syllable or couplet.
3. Introduction of the READING OF THE LETTER: small, capital, and recognition exercise, finding the letter anywhere in the room--on charts, in books, etc.
4. SYLLABLE PRACTICE: sound/letter in all possible positions, before and after vowel, beginning and ending three-letter syllables. (However, note 1, on p. 4.)
5. VOCABULARY DEVELOPMENT (8-12 words introduced with visual aids for motivation).
6. WRITING PRACTICE: small and capital letters, syllables, words, sentences.
7. GAME. (Suggested games are appended to this paper.)
8. DICTATION. (Oral-aural-graphic)
9. CHECK UP: Reading and writing of words and sentences.
10. CREATIVE FREE EXPRESSION. The children are asked to give words or sentences that contain the new letter, but which they have never yet read or written for themselves.

PROGRAMMED ORDER OF LETTERS FOR SOME PHILIPPINE LANGUAGES

(Dotted lines show a breaking of the program into units; upon completion of a unit a full summary and review is taken before going on to the next letter and unit.)

<u>ORDER</u>	<u>AKLANON</u>	<u>HILIGAYNON</u>	<u>PILIPINO/TAGALOG</u>
1.	o O	o O	o O
2.	l L	l L	l L
3.	a A	a A	a A
4.	b B	b B	b B
5.	i I	i I	i I
6.	r R	n N	t T
7.	. ?	. ?	. ?
8.	n N	t T	d D

9.	k K	k K	k K
10.	u U	u U	u U
11.	y Y	g G	n N
12.	h H	ng NG	g G
13.	e E (fri- cative)	s S	ng NG

14.	e E (vowel)	n M	e E
15.	m M	y Y	y Y
16.	d D	h H	n M
17.	g G	d D	r R
18.	s S	r R	s S

19.	t T	p P	p P
20.	p P	w W	w W
21.	w W	e E	h H
22.	ng NG	- (glottal stop)	
23.	- (glottal stop)		

EXAMPLES

Akl, Hil, Tag lolo 'grandfather', lola 'grandmother' ((CONTRAST)
 Akl, Hil, Tag bala 'bullet', bola 'ball', abo 'ashes', lobo
 'balloon', bolo 'long knife', bibi 'duck', libo 'thousand',
 bili 'price; to buy', ilo 'orphan' (VOCABULARY DEVELOPMENT)
 Akl Bola ra. 'This is a ball.' Bola ra? 'Is this a ball?'
 Hil Bola ini. 'This is a ball.' Bola ini? 'Is this a ball?'
 Tag Bola ito. 'This is a ball.' Bola ba ito? 'Is this a ball?'
 Akl Namo ron?, Hil Ano ina?, Tag Ano ito? 'What is that?'
 Akl, Hil, Tag Lolo ako. 'I am grandfather.' (SENTENCES)

SUGGESTED GAMES

1. **UNDERLINE THE LETTER.** The teacher writes a word on the board and the pupils are asked to underline the letter(s) being studied.
2. **FRAME THE LETTER.** The teacher writes a list of words on the board, and the pupils frame with their hands the letter called out.
3. **SPELLING ON THE CHART.** The teacher dictates a word and the pupils must spell it out one letter at a time on a felt board, clip chart. (This game is best played with the letters on individual cards.)
4. **MATCHING GAME.** The teacher lines up pictures in the front of the room, and passes out cards with the names of the pictures; pupils must match the right word to the picture.
5. **FIND YOUR PARTNER.** The teacher hands out at random pictures and word-cards. The pupils must then find the correct word to match the picture, or the correct picture to match his/her word.
6. **FASTEST WRITER.** The teacher dictates a word and lets two or more children race to the board to see who can write it out the fastest.
7. **JUMBLED LETTERS.** The teacher shows a picture and then a card with the correct letters, but out of order; the pupils must then write out the correct word.
8. **MISTAKEN MATCHING.** The teacher puts the wrong words under sets of pictures; the pupils must go and find the correct picture for each mistakenly-placed flashcard.
9. **RIGHT OR WRONG.** The teacher shows a picture, then a flashcard, and the pupils must say whether the flashcard really matched the picture.
10. **WORD TO WORD MATCHING.** Flashcards containing words written in small and in capital letters are distributed around the room, and then the pupils must match them up.
11. **DICTATION.** The teacher says a word and all the pupils must write on slate or paper; the game can be played for speed or accuracy of spelling.
12. **SIGHT-READING.** The teacher writes words on the board or shows a flashcard, and the pupils must quickly read them. The words can be erased or put away after only a brief time to check on the speed of the children's perception.
13. **PICK-OUT.** Several words are written by threes on the board; the words are to be either the same or different by a single letter. The teacher says a word and the children must point to, underline, or otherwise pick out the word that was said.
14. **NAME THE ERASED WORD.** From a large list of words, the teacher erases one word at a time, and the pupils must name the word erased.

SUGGESTED GAMES (continued)

15. PRIZE GAME. Pass out a number of flashcard to everyone in the class. The children then read their cards one-by-one; if they read correctly they may keep the card, if in error, they return the card to the teacher. The student(s) with the greatest number of cards at the end of the game get a piece of candy, a "ticket to the movie" (imaginary prize), or some other kind of positive reinforcement.

16. SPELLING BEE. Line up rows against rows, boys against girls, or some other appropriate team groups, and let them spell words dictated--orally or in writing at the board. Those who make a mistake must sit down. The team that has the most persons standing by the end of the period or game is the winner.

17. WORD-BASEBALL. Present a spelling or identification task to one of two teams. Every correct answer is one base (4 bases = 1 home run ; every mistaken answer is one strike (3 strikes = 1 point subtracted from total score). A similar game can be played according to some other appropriate cultural game: football, cricket, etc.

18. TEAM SPELLING OR WRITING. Set up teams of four, five, or six players each--according to the length in letters of words to be dictated. Each team must spell the dictated word, one letter/one person at a time (orally or in writing). Those who spell the most words correctly win the game, one point per correct word.

19. WORD COMPOSITION GAME. Have syllables printed out on flashcards. Keep one syllable constant (e.g., "na") and let the pupils judge if other syllables pronounced with it (e.g., "ka", "ta", "ma") are real words.

20. SENTENCE COMPOSITION. Put two, three, or four words known by the pupils on the board, and have them combine the words into correct sentences. If there are letters in the sentences which the pupils cannot spell, try writing the unknown letters down with appropriate blanks for the letters already known.

TENTATIVE VERSION FOR NANGIKURUJURR (Daly River Language)

UNIT ONE (towards full words and simple sentences)

1. l L lili 'lily' (from English), LILLI, Lili (name)
2. i I lili 'lily' (from English), LILLI, Lili (name)
SYLLABLES: li, il, ili, ilil, ILLI, ILLL, LI, IL
3. b B bli 'axe', bili 'Billy, billy (can)'; Bili, BIBI
4. u U bubu 'sleepy', bulbul 'to cook'
5. a A aba 'younger sister/brother'
6. d D di 'cry', daba 'arm',
7. e E dede 'country, place', debi 'thigh', bude 'nest'
8. w W wu 'sky, cloud', wa 'paperbark', lawa 'damper',
wewe 'vomit', wuwu 'dog'
9. t T data 'shoulders', weti 'small', aweti 'bird'
10. . Wuwu weti. 'The dog is small.'
Bi weti. 'The axe is small.'

UNIT TWO (vocabulary development, questions and answers)

11. k K ki 'argument', buliki 'cow', wakwak 'crow',
wukwuk 'owl', kalla 'mother', kide 'where?'
12. ? Kide wuwu? 'Where's the dog?'
Kide bi? 'Where is the axe?'
13. n N nelen 'road', diwin 'moon', tawan 'smoke'
kene 'who?', -nide 'in, at, on', wuni 'there'
Kide bi? Wuni. 'Where's the axe? Over there.'
14. p P pi 'to comb', depi 'head', pap 'to climb', pat
'get up, wake', patpat 'grasshopper', peke
'tobacco', pul 'to wash', putput 'pregnant woman'
15. m M muk 'sore, cut', mamak 'goodbye', nanama 'song',
nem 'he, she', -nimbi 'from', mimmi 'no'

UNIT THREE (digraphs, important function words, & vocabulary)

16. y Y yu 'yes', yawul 'spear', yedi 'man, husband',
miyi 'food, tucker', yeyi 'other(s)', yibu 'good',
danuy 'eye', wakay 'finished', nimuy 'long yan'
17. ny NY nyinyi 'you (sg)', kinyi 'this', adany 'shark',
adiny 'leech', nyekin 'excreta'
18. ŋ ŋ ŋayi 'I', ŋayin 'she', ŋini 'for, in order to'
deŋeni 'body', aŋidi 'worm', aŋini 'meat flesh'
19. r R kuri 'water', aŋari 'fish scale, turtle shell',
amire 'water snake', noŋiri 'fingernail'
20. rr RR werrin 'they', wurr 'grass', nirri 'sun',
ŋurp 'emu', kuderri 'billabong', wirrike 'they-2'
21. j J Jaŋla (skin), Jimija (skin), abajinirri 'pigeon'
22. tj TJ tji 'milk, breast', tjul 'to roast', aŋutj 'devil',
tjatit 'to light fire', -tje (past time marker)

TENTATIVE VERSION FOR NANGIKURUNURR (continued)

UNIT FOUR (building vocabulary and sentences, creative writing)

23. f F fepi 'stone', firri 'dream', falni 'woman',
fi 'string', afu 'whip-snake', defirr 'foot',
fufu 'light', alfukarri 'brolga', yife 'yonder'
24. g G agadirr 'green ant', dege 'stomach', kagu 'meat';
tjagani 'what?', fagarri 'two', nagurr 'you (pl)';
nngarri 'you-2', ngurr 'we-all (excl)';
ngarri 'we-2 (excl)'
ferigu 'long', karigi 'high', qiangi 'story',
yingini 'row', yengi 'fire'
25. s S wesi 'white clay', asininmin 'little bat',
awisamuy 'white crane', dajimfisul 'sunrise'
26. sy SY syiigi 'sour, bitter', syuigun 'grey-haired',
wasye 'hair (of head)', desyi 'nose',
misya 'passionfruit', pisyagigi 'hawk'
27. ly LY delyek 'woman with many children'
28. th TH thatna 'upright, straight', qatha 'father',
thathalakjini 'soft'

This programme is meant for a pilot project in the Daly River Mission. It is subject to change and revision, and in no way should be considered definitive. It is a revised version of a tentative program first drawn up in early June 1976.