The psychological and linguistic rationales for an integrative approach to teaching reading and language that is based on the language experience and shared book approaches are presented, and the necessary changes in the Singapore educational system are outlined. Because the program is an integrated language arts approach, reading instruction time is integrated with language learning time, and some blocked periods are scheduled. The implementation strategies include provision for monitoring and feedback from workshop leaders, teachers, and students. Data derived from children's reading and language test performance, classroom observation, and a study of instructional problems faced by teachers in using the approach are analyzed, and recommendations are made. (MSE)
IMPLEMENTATION STRATEGIES FOR AN INTEGRATIVE APPROACH TO TEACHING READING AND LANGUAGE

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ABSTRACT

The danger of the language curriculum being broken up into isolated components (for example, reading, writing, composition) is a real one for the Singapore lower primary school teachers who work within enormous constraints: with classrooms allowing little mobility, tight syllabi, inflexible time-tableing and examination pressures. This paper presents the psychological and linguistic rationale for an integrative approach to the teaching of reading and language, discusses the accompanying changes that would have to be made to certain aspects of the Singapore education system, pleads for changes that will be conducive to the teacher and describes fresh implementation strategies for the recommended instructional approach. The recommendations made in this paper are based on three facets of an on-going research study:

i) the analysis of data collected from children's performance in reading and other language tests,

ii) the observation of classroom reading activities in the lower primary class levels and

iii) a study of the problems faced by some teachers in the use of the recommended instructional approach.

* The author gratefully acknowledges the help of her team members working on the Reading Skills Project and the Reading and English Acquisition Programme.
BACKGROUND

In early 1983 the Reading Skills Project was set up to study the problems faced by Singapore children learning to read and to develop recommendations for improvement of teaching strategies. The following activities were conducted to achieve these aims:

(a) information was gathered about children's performance in reading and reading-related tasks in Year 1, 2 and 3 classes,
(b) reading instruction activities were observed in classrooms,
(c) interviews were conducted with teachers concerning curriculum and instructional issues and
(d) suitable teaching approaches were sought for the Singapore classroom.

It was concluded after an analysis of the information from these studies that change is necessary to help strengthen the weaknesses of children's reading and language skills. The project team found that the Language Experience Approach to Reading and a related technique - the Shared Book Approach (Holdaway, 1979) can help strengthen the weaknesses present not only in our children's pre-reading and reading skills but also in their oral language.

In essence the Language Experience Approach to Reading (LEAR) is a meaning-based approach to both language and reading instruction that utilises and builds on the pupil's language ability at any stage of language development (Lee & Allen, 1963).
By providing him with experiences that involve his senses and feelings, this approach capitalizes on his interest in order to motivate him to develop oral English facility. It helps him bridge the gap between spoken and written English. It supplies him with positive learning experiences which continually reinforce his motivation to learn.

This paper presents the psychological and linguistic rationale for an integrative approach to the teaching of reading and language, discusses the accompanying changes that would have to be made to certain aspects of the Singapore education system, pleads for the changes to be sympathetic to the teacher and describes fresh implementation strategies for the recommended instructional approach.

2. SUPPORT FROM LITERATURE FOR LEAR

Early studies (mainly conducted in the 1960's) in which LEAR was compared to other methods of reading instruction have yielded no clear cut results. (See Spache and Spache, 1977, for summary of studies.) The reason for conflicting results in comparative studies of this kind stems from the inability to strictly control teachers' interpretation and implementation of methods, especially one as flexible as LEAR. For this reason, comparative research between global methods has become less popular. In the last decade, research has been focused on a more specific issue, that of comparing two different approaches to word-attack skills. This other kind of comparative study and findings in psychology and linguistics provide strong support for the introduction of LEAR to Singapore's primary schools.
Studies on Word Attack Skills

In reviewing studies comparing different approaches to teaching word-attack skills, Ceprano found that beginners who practise reading and interpreting words in meaningful sentences learn more about the word's syntactic and semantic identities whilst children who read the words in isolated units learn more about the graphic and phonic characteristics of words (Ehri and Roberts, 1979; Ehri and Wilce, 1980; Ceprano, 1981).

This conclusion lends some support to proponents of the analytic phonics approach who support LEAR as an approach that stresses "wholes" (sentences or sentence parts rather than individual words or letters as in the synthetic phonics approach) and therefore meaning through active, first-hand experience, using words and ideas that are meaningful to the child (Goddard 1974, p. 17). Although this approach may mean a slower rate of word learning it is justified if children's sensitivity to context and to orthography are developed conjunctively (Ceprano, 1981).

The Linguistic Basis for LEAH

Linguistic studies provide us with information on how children learn to talk by verbal interaction with people in their environment and not simply by repetition and imitation. Hall and Ramig (1978) recognize the close relationship between language and reading when the learning situation involves exposure to the language of meaningful communication without fragmenting or limiting the language. They consider LEAR to be especially appropriate since it views reading as part of language communication and capitalizes on the relationship between speech and print (Hall...
LEAR is considered by Hall and Ramig to be the instructional approach with the strongest linguistic basis, especially for prereading and beginning reading periods.

**The Psychological Rationale for LEAR**

Hall and Ramig (1978) also give a psychological rationale for LEAR since the approach includes the factors of personal and active involvement, creativity, positive attitudes, success, motivation and interest—all of which contribute to the many facets of language learning. Many systematised approaches do not take account of these psychological factors but attempt to force the child into the logical sequences of adult thinking. Any sensitive observer of child behaviour can see that learning sequences do not fall into neat categories (Holdaway, 1979).

Some claim that positive attitudes toward learning and reading are lacking in Singapore education. With the traditional methods of teaching and learning and an education which is syllabus and exam-oriented, reading becomes utilitarian and is not seen as a leisure activity (see Richards, 1983; Sharp, 1983). The findings from an exploratory study (Greaney and Clark, 1975) indicate that an approach to reading in which efforts are made to develop favourable attitudes toward reading have more positive effects than the more traditional basal-reader approach.

In language experience approaches, teachers try to improve learning by taking into account the resources children can bring to the learning task and by using these as starting points. In addition, LEAR persuades the teacher to take into account other
values such as seeing a purpose in reading, using communication skills in relation to other aspects of learning, and developing positive attitudes that will persist after the stage of beginning reading (Goddard, 1974, p. 33).

3 LEAR IN SINGAPORE SCHOOLS

Although the Reading Skills Project focuses on reading acquisition, the overall area of concern is the teaching and learning of English and the findings have consistently indicated the interdependence of language skills (see Ng, 1984). The project reports have therefore emphasised the need to attack all four language skills - listening, speaking, reading and writing. This recommendation is in line with the considered opinion of many educators in the reading field that learning to read should not be compartmentalised and viewed apart from other aspects of language learning. Therefore the instructional approach recommended for teaching reading is conceptualised within the framework of a language programme and holds serious implications for innovations in the teaching of language.

LEAR was chosen because it can provide the basis for a language and reading programme that is most suitable for primary school children in Singapore, especially the many that come from non-English speaking backgrounds. The average Singapore school entrant has few or no English words under his control, unlike a six-year-old native speaker of English whose estimated vocabulary ranges from 2,500 to 17,000 words (Froess and Straw, 1981, p. 247). At entry to school, Singapore children spend part of their
half day of school learning a non-English language and return to an essentially non-English speaking environment. Our children are in great need of a programme which will allow maximum practice of the language, not conducted through repetitious drill, but through situations that keep motivation and interest high (see Ng 1984).

The principle underlying this approach is one of reinforcement and practice not reliance on monotonous repetition. One of the main ways in which LEAR can provide reinforcement to facilitate learning is through integration of subject areas or skills. LEAR can be used to teach new vocabulary and English structures across the curriculum, for example using science, mathematics, art, music or PE activities as the experience.

Even if integration is achieved only within the English subjects, a multisensory approach through listening, speaking, writing and reading activities would provide reinforcement through auditory, visual and muscular channels.

It can be seen from the arguments presented so far that LEAR contains sound psychological principles of learning and teaching - it starts from where the child is, taking into account his interest and ability and leading him on to learn skills which are essential for future learning.

IMPLEMENTING LEAR IN SINGAPORE

Observation of classroom reading activities in the lower primary class levels in Singapore reveals that a change in approach is required. Our research team observed 72 reading lessons in 24 randomly selected schools and found that the most favoured
techniques are the use of oral drill with flashcards and the chorus reading of basic reading texts. The skill most frequently promoted is isolated word recognition. These findings are similar to those revealed in a previous preliminary study (Ng, 1980). The restricted range of instructional techniques used seems inadequate to cater for the wide range of reading levels found at the 3 primary class levels. Neither were these instructional techniques effective in coping with the weaknesses found in the pupils’ oral language, pre-reading or reading skills (Ng, 1985).

5 CHANGES TO THE SYSTEM

Considerations

In view of these findings, the Reading and English Acquisition Programme (REAP) team was formed to train teachers and pilot the implementation of the Language Experience programme in Year 1 classrooms in 30 schools with children mainly from non-English speaking homes. A comprehensive retraining programme for Reading and English teachers was found to be necessary despite recent efforts to improve English language teaching in Singapore (see Sim, 1981; Subramanian and Singh, 1982). Thorough teacher training is required to help the teacher move away from chalk and talk or rote memorization of the language, and prevent teachers from using charts, stories and general procedures in the same repetitious manner as they have previously used the readers.

Changes to the system required for REAP implementation are discussed in the rest of this section. These changes touch on curriculum time allocation, teacher allocation, a fresh approach to teachers' roles in the change, and innovative measures for
structuring the change process. The paragraphs following will also describe: (1) the training of workshop leaders, utilising feedback on successful features of teacher-training and attending to support systems and (2) the procedure for monitoring the implementation of these changes.

To help the teachers use REAP reading techniques effectively, one condition was demanded of the school. LEAR, being an integrated language arts approach, demands that reading instruction time be integrated with language learning time and some blocked periods are necessary, at least for the English subjects.* This is a desirable move in any case because one teacher who covers all the English subjects has a better chance of reinforcing what is learnt in a variety of ways. She will also have a better idea of the pupils' strengths and weaknesses in all English areas. Her effectiveness would undoubtedly be increased if she were also responsible for other subjects like mathematics, art and craft, physical education and music.

The requirement for a Year 1 teacher to be responsible for all subjects across the curriculum may be common in some countries; but in Singapore lower primary schools, there is a real danger of even the language curriculum being broken up into isolated components to be taught by different teachers. Singapore teachers work within enormous constraints: classrooms allowing little mobility, tight syllabi, inflexible time-tableing and examination pressures. Singapore teachers also share the frustrations of other

* Of the 15 English Language periods, one period a day was to be allocated to the Shared Book lessons, a strategy derived from a research study conducted in Fiji (Elley & Mangubhai, 1983).
overseas teachers who according to Renwick (1981) bear increasing professional responsibilities without enjoying the legal status, autonomy or decision-making powers of other professionals.

Any strategies for implementation of educational change should focus on teacher needs and the change should be made as conducive to the teachers as they are meant to be for students, if only for the reason that the teacher is the final agent of change. Bearing this in mind, the plans for retraining teachers and implementing REAP were drawn up only after careful consideration of data collected through:

(a) feedback from experience with previous in-service courses run at the Singapore Institute of Education,
(b) a survey conducted among teachers to determine the extent and feasibility of using the Language Experience Approach in Singapore classrooms and
(c) a literature search for general guidelines suitable for implementing educational change.

During planning, considerable attention was given to the problems faced by teachers trying out the ideas in the Language Experience Approach, how training workshops can be made more effective and also how a system can be built up to facilitate the implementation of these teaching strategies in the classroom.

It was anticipated that a sudden change from simple order and drill to a highly flexible and individualised programme might be confusing, especially for teachers who are not native speakers of English themselves. The established instructional method used
in Singapore adheres to the published reading scheme and teachers have their children work systematically through the textbooks and workbooks. The idea of departing from this system is threatening to teachers who feel they need support from published reading schemes in order to teach children.

It was decided therefore to disseminate this approach with maximum accommodation of the Singapore situation. The Language Experience Approach has been adapted to existing curriculum materials, and detailed guidelines as well as ready-made instructional materials are provided to facilitate an easier transition in materials and approach.

Hurst (1983) in a critical review of literature on implementing educational change laments the fact that the common pattern in education is to put major effort into designing and disseminating new schemes, and maybe to conducting evaluative post-mortems, but largely to leave implementation to itself. We see specific guidelines for implementing educational change as a crucial component, for although guidelines alone cannot guarantee success, the literature review shows that innovations are unlikely to be adopted unless specific features and stages of change implementation are systematically attended to.

An examination of the plans for teacher-training and the implementation of REAP shows the presence of some of the conditions conducive to the successful implementation of educational innovations described in the literature (Berman and McLaughlin, 1978; Whithead, 1980; Hurst, 1983).
Teacher-Training

Berman and McLaughlin (1978) specify some of the features required of a thorough training programme that is to prepare teachers adequately.

(a) Training should not be merely in the form of lectures but should expose teachers to concrete experience (e.g. demonstrations and trials).

(b) In line with the educational principle that individualised activities teach more effectively than group activities, the training of teachers should focus on meeting the different specific needs of the teachers and pupils.

(c) Training should be ongoing to meet the changing needs of the teacher. It is therefore essential to provide resource persons who can give on-call advice.

(d) Training should include school-based practice demonstration classes and teacher-participant interaction.

(e) Besides receiving training, teachers should also be motivated to change to more effective teaching styles. One of the more effective ways of persuading teachers to change is to allow teachers to be agents of change (Whitehead, 1980). In REAP, three key members of the team, recently primary school teachers, provided valuable assistance with choosing the content of the teacher-training programme.

General psychological principles of learning were applied to facilitate more effective learning of the REAP teaching strategies by the teachers.
(a) The training sessions for the workshop leaders and teachers are conducted in phases spread over the school year. For example the workshops for the first semester this year were held in January, March and April. The teaching skills taught at each phase are sequenced with stages of pupil progress in language learning and teacher curriculum needs in mind.

(b) Instead of following a logical structure of first initiating the teachers into the basic principles of the Language Experience Approach, the training programme starts with a specific teaching technique: the Shared Book. It is hoped that this simple teaching technique, an invaluable appendage to the Language Experience Approach, will if introduced in Phase I, prepare the teachers for the more complex techniques in the Language Experience Approach in Phase II.

(c) General guidelines for the teaching approach are supported by specific guidelines. The two types of guidelines help a teacher not only to use a technique but also to understand the rationale underlying its usage. The delicate balance between principle and practice is designed to aid mastery of teaching techniques.

This organization allows time for practising one new technique before another is introduced. In Phase II, teachers will be gradually introduced to the Language Experience Approach, the plan being to progress from more structured LEAR activities in Term 2
to less structured activities in the third and fourth terms of the year.

The Teacher Trainers

One of the limiting factors in the implementation of REAP, is the lack of personnel qualified in the Language Experience Approach. This means that those running the workshops in schools have themselves to be first trained in the new teaching strategies. Previous strategies for training workshop leaders were re-evaluated and the following strategies were devised to compensate for weaknesses which may hinder successful implementation.

(a) To help prevent dilution occurring between the REAP training sessions for workshop leaders and the training sessions for teachers, a training package (slides, tapes and possibly video) is being developed to complement the training programme for workshop leaders. Furthermore, the teachers' workshop sessions follow closely after the training sessions for the workshop leaders.

(b) While workshop leaders are instructed to monitor and guide the teachers in the implementation of REAP teaching techniques in the schools, a device is also being developed to oversee this monitoring system. Whenever necessary, meetings with workshop leaders are held to discuss problems and possible solutions to the problems faced by the leaders in this infancy stage of REAP.
Support System

Of extreme importance is the support of other members of the staff, in particular the principals, and parents. Because REAP is activity-based in order to present realistic language situations, principals and parents may perceive the approach as detrimental to school achievement, which is largely encouraged by intensive adherence to syllabus and set materials. Those people have to be familiarised with the approach to see its relevance. They need to be assured that the innovations will not be detrimental to their children's achievement. It is intended that effective means of communication (e.g. through mass-media) be used to inform concerned parties of the rationale and workings of the new policy. For that purpose; before REAP was implemented, a meeting was held to brief principals of the schools involved on the background and rationale for REAP. The discussion was followed by a brief practical demonstration of some REAP teaching techniques. Another similar meeting was held with primary school inspectors. The desire to obtain utmost support from all instructional bodies connected with English language teaching in the primary school is reflected in the composition of the REAP task force, which draws its members from the Ministry of Education, the Curriculum Development Institute of Singapore and the Institute of Education.

Careful Monitoring of the Implementation Procedures

Mann (1976) pointed out that although what happens at the service delivery level, inside the school, is related to our success or failure, the gap in our knowledge about implementing change in the schools is formidable. In an attempt to close up
this gap, Hurst (1983) identified the most important activity in innovative project management as the close monitoring of the implementation procedure, not only to ensure the adherence of the essential principles of the recommended teaching approach but also to note the rate and level of acceptance of the innovation and to analyze the reasons for any low levels of adoption. Such an analysis enables the project manager to take corrective actions to overcome disincentives, difficulties and obstacles which may be encountered.

It is important therefore at this initial stage of implementation that REAP be carefully monitored so that improvement can be effected through feedback. Instruments have been being developed to monitor the following areas (see Table I):

1) The monitoring form, A, and the accompanying coding descriptions are used by the workshop leader to help him guide the teacher to a minimum level of competence in the use of REAP teaching techniques (in this case the Shared Book technique).

2) Feedback from the workshop leaders and the teachers on the effectiveness of training sessions is obtained by questionnaires (Forms B and C).

3) Teachers' and children's opinions of REAP in action in the classroom will be sought through the use of Forms D and E.

Any problems in implementation of REAP can be charted with the use of the above forms.
Table I: Monitoring Forms for REAP (Phase I)*

<table>
<thead>
<tr>
<th>TITLE</th>
<th>OBJECTIVES</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Workshop Leader's Monitoring Form on Shared Book Approach Lesson</td>
<td>To systematically monitor teacher performance so as to help teacher use SBA and materials more effectively.</td>
</tr>
<tr>
<td>B Workshop Leader Feedback on Training Sessions</td>
<td>To obtain feedback on the effectiveness of training session for workshop leaders.</td>
</tr>
<tr>
<td>C Teacher Feedback on Workshop</td>
<td>To obtain feedback on the effectiveness of workshop run by workshop leaders.</td>
</tr>
<tr>
<td>D Teacher Feedback on the Shared Book Approach</td>
<td>To obtain feedback on:</td>
</tr>
<tr>
<td></td>
<td>a) effectiveness and appropriateness of SBA and materials</td>
</tr>
<tr>
<td></td>
<td>b) pupil and teacher's enjoyment of approach</td>
</tr>
<tr>
<td></td>
<td>c) pupil's most/least favourite Big Books</td>
</tr>
<tr>
<td>E Pupil's Feedback on Use of the SBA in the Classroom</td>
<td>As above.</td>
</tr>
</tbody>
</table>

* Parallel forms are being developed for the Language Experience teaching techniques in Phase II.
Monitoring Children's Achievement

Because REAP has as its major aims not only the improvement of teaching skills but also the raising of children's achievement and interest in English Language, it is also important to monitor, through the first year, the impact of REAP on the learning progress of our children. Three kinds of instruments will be used for this purpose.

i) the individually administered battery of tests used in the Reading Skills Project (see Ng, 1985),

ii) an English Language examination having a structure similar to a school's usual mid and final year English Language examination and

iii) an interest inventory to measure children's interest in reading and language.

Although care has been exercised in the design of the monitoring procedures, it is very difficult to control all the variables that may influence the success of implementation and one should not be unduly surprised if no clear-cut findings emerge at the end of the first year.

6 INITIAL FEEDBACK

Feedback from monitoring REAP in its initial phases has been encouraging. During meetings held to discuss teething problems, workshop leaders reported the observation that the Shared Book lessons were enjoyed by both teachers and children. Some teachers were pleasantly surprised by the amount of oral language and
reading skills the children were developing with the use of this technique. Analysis of the feedback forms returned by workshop leaders and teachers about the first sessions (see Table 1, Forms B and C) show that the workshops were generally well-received.

Wherever possible, corrective measures have been adopted to strengthen the weak points that have surfaced in these first months of implementation. For example features of the tape-slide presentation of REAP teaching techniques (e.g. the sound quality of the cassette tapes) were improved for the second workshop session. Both tape-slide packages are being revised to include clarification and increased emphasis on concepts teachers found difficult to grasp in the workshops. For other problems, remedial measures may not be as easy.

If time had permitted, better trialling of REAP teaching techniques could have been carried out before the package reached the 30 target schools. The initial training package is based on feedback from (a) teachers who have tried out Language Experience Approach activities acquired from a previous in-service course run at the Institute of Education and (b) a REAP officer working out these techniques in a normal Primary 1 classroom. This project officer however, is a highly motivated and effective primary school teacher and more useful feedback might have been obtained by letting a more ordinary Primary 1 teacher trial the REAP package first.

Better methods of communication need to be worked out for those participating in REAP, especially for the principals.
Initially it was envisaged that channels of communication could be effected by inviting principals and senior teachers (in charge of English Language teaching) in the target schools to attend the workshops run for teachers. However, very few principals or senior teachers actually do attend the workshops. A device is now being worked out to hold meetings with principals by zones for the purposes of discussion and disseminating information.

Perhaps the greatest problem may be the inability (or reluctance) of some REAP participants and perhaps some administrators to recognise and understand the nature of implementing educational change. This problem was highlighted when a request came from some REAP participants for a clearer conceptualization of the workings of REAP - a request not easily complied with, since REAP is still in its infancy phase of implementation. Administrators also need to understand that order and rigidity inherent in any system is an obstacle to flexible and responsive reform efforts (Hurst, 1983). The normal administrative system designed for routine work is not suited for innovative work which requires careful monitoring of events, swift analysis and highly flexible responses. Participants in an innovative organization should be given freedom to exercise extensive discretion whereby the hierarchial process of communication and decision making is cut to the barest minimum. Most ministries of education do not have this structure, having been set up for the management of steady-state or expanding systems, rather than changing ones.
According to Hurst (1983) two main conditions are essential for implementing educational change. First, administrative procedures need to be changed in order to allow project managers and others involved in implementing innovations to respond appropriately. Second, the same people need training. Recognition of the fact that innovative projects are different from routine work may be a start to providing more adequately for the needs of participants involved in implementation.

7 CONCLUDING REMARKS

It can be seen from the above discussion that successful implementation depends on many factors including the training of workshop leaders, the training and supervision of teachers, the development of guidelines for REAP activities, the supportive system set up to aid teachers in implementation, the monitoring system set up for analysis of participant responses and the corrective action which must follow. Although a lot of effort has been expended in designing a fairly effective monitoring system one should not expect astounding results at the end of this first year of implementation. REAP teaching strategies, although incorporating bits of the traditional teaching methods, are still relatively new to Singapore teachers and many of its elements have to be systematically tried out in Singapore classrooms. Besides, management of implementation projects is new to all of the REAP team members.

Despite the note of caution, there are strong grounds for hope that REAP, after the initial teething problems, will show
evidence of positive effects on the language achievement of children and their attitude to language learning and reading. In any case, the first year of implementing REAP should provide, at the very least, a valuable point of departure plus useful feedback information about future strategies for improving language teaching for young Singaporean children.

REFERENCES


