

SECTION TWO

DEVELOPMENT OF WORKABLE PLAN FOR PHASE TWO

2.1 Phase One development

Phase One was commissioned on 18 October 1996. The development of the project work for Phase One was as follows:

Timeline	Consortium	Consultation
6 Nov. 1996	First teleconference	
13 Nov. 1996	First team meeting in Sydney to discuss overall strategies.	First round of State/Territory consultation
22 Nov. 1996	First Monthly Progress Report	
18 Dec. 1996	Second team meeting in Melbourne to discuss sampling. Second Monthly Progress Report	
15 Jan. 1997	Third team meeting in Sydney to identify issues for the second round of State/Territory consultation. Drafting of final report.	Second round of State/Territory consultation
17 Jan. 1997	Third Monthly Progress Report	
6 Feb. 1997	Second teleconference to discuss test paper selection	
12 Feb. 1997	Fourth team meeting in Melbourne to finalise test selection and to discuss final report.	Meeting with Robert Bruce to exchange views on all relevant issues.
18 Feb. 1997	Fourth Monthly Progress Report	
28 Feb. to 3 Mar. 1997	Final Consortium meeting in Sydney to prepare the final draft of the Final Report	
4 to 6 Mar. 1997	Editing of the Final Report	
7 Mar. 1997	Submission of the Final Report	

2.2 Issues arising and suggested solutions

The following are some of the major issues that have arisen during discussions with States/Territories in Phase One and would impact on the work of Phase Two. The section gives an overview of those issues and the suggested solutions arrived at so far. Details are contained in the relevant sections of this report.

The major components of the proposal form an integrated structure. Decisions taken on one component often have implications for others. As a consequence, the discussion in this report on individual components sometimes requires some appreciation of other components. This section, therefore, provides an overview of the proposed design and methodology.

2.2.1 Test dates

Following the guidelines in section 1.3, there are a number of constraints regarding test dates:

- The time of testing has to be outside the testing programs of any State/Territory.
- The time has to be convenient for the schools to carry out the testing.
- The tests in all States/Territories have to be administered within a common period of time, say a fortnight, for all States/Territories.

Because of the tight timeline anticipated, October 1997 is the period recommended. The contractor of Phase Two has thus to have everything relating to testing and analysis thoroughly rehearsed before the actual testing commences. Any delay in the operations after the tests are administered would have serious effects on the timely completion of Phase Two.

2.2.2 The statistical model

The statistical model for the estimation of the equivalences among State/Territory tests was considered within the context of the whole exercise, that is, the particular sampling plan used, the way test materials are selected and the guidelines in section 1.3. The model chosen is within the item response family of models. The estimation procedure will have to include State/Territory characteristics and age difference (which relate to WA and NT). The general class of Rasch models has been chosen as the approach that would satisfy those requirements.

Because of the particular estimation procedure in Rasch models, the arrangements for test administration can be simplified considerably to enable a straightforward test administration arrangement and an analysis model that does not require that all students take all of the tests from other States/Territories.

2.2.3 Year level

The year level must meet conflicting requirements for the establishment of equivalence. The sample tested in Phase Two must be at a level of schooling comparable across States/Territories; second, the sample must involve students who are being administered their own State/Territory literacy tests. The ages of students in primary schools in various States/Territories are not the same for the same year level (see appendix II).

The decision by the Consortium is to select the sixth year of schooling as the level for testing in Phase Two. The reason for this is to select students towards the end of their primary schooling and at a level when State/Territory literacy tests are administered. The primary school year level for the sixth year of schooling across States/Territories is as follows:

- Year 5 ACT, NSW, NT, SA, Tas. and Vic.,
- Year 6 Qld and WA.

In terms of State/Territory testing programs, testing students at the sixth year of schooling would include the level when most States/Territories administer their own tests, except WA which tests at Year 7 and NT which tests at Year 6.

Such a situation has important implications for the sampling plan. The solution is to sample students in the sixth year of schooling for all States/Territories except NT, which samples Year 6. A small sub-sample will be selected for Year 7 in WA and for Year 5 in NT so that links can be established which will enable the equivalences to be extended to WA and NT.

2.2.4 Sampling

The issue of sampling has to be addressed in terms of the feasibility for the States/Territories, the cost involved and the optimal level of precision practicable. An initial projection by the Consortium was for a total sample of 9000 students across the country. Details of the sampling plan are described in section 3.

2.2.5 Selection of test materials

The Consortium considered nine possible options for selection of tests. A table reporting advantages of, disadvantages of and recommendations for the nine options appears in appendix III.

The nine options were grouped into three general categories:

- embedding common items in State/Territory tests
- combining different items from State/Territory tests to form new test forms
- keeping existing State/Territory tests with minimal modification.

Item embedding is not recommended because of the disruptions it would cause to State/Territory testing programs. Most States/Territories had already begun development of testing programs for 1996. Victoria, for instance, was almost finished. The budgets for test development are considerable, and to disrupt this process would lead to serious opposition from the systems. For 1997 it was too late to become involved in the test development program. Even for 1998 a decision in this area would need to be made before May or June 1997.

In Phase Two implementation, item embedding will not be organised in time for the 1997 school year as most States/Territories will have finalised their 1997 testing arrangements by the time Phase Two begins.

Embedding items in each State or Territory test raises other problems, including the issue of test security. Tests administered in Victoria in March become public documents. Link items from that test embedded in other State/Territory tests may have a serious effect. Once the items become public, the relative difficulty of the item is lowered. They appear easier in relation to the remainder of items in other State/Territory tests. If the link items are used as anchor points it would lead to an apparent lowering of performance in other States/Territories.

Combining different items from State/Territory tests is also not recommended because it would involve very complex test administration logistic issues and would lead to rather high standard errors with the planned sample size of 9000.

Using existing State/Territory tests was considered in two ways:

- All States/Territories taking all tests. While this would give maximum links across all tests using common person equating, it would be expensive in terms of materials and very intrusive in terms of teacher time. A participating teacher would be required to administer six reading tests and five writing tests.
- Each State/Territory would administer its own tests (referred to as the Home Test) and a test from another State/Territory (referred to as the Foreign Test). This has the advantage of enabling every State/Territory test to be linked either directly or indirectly to every other State/Territory test and minimises the intrusion for participating teachers. Details of this procedure are given in sections 3 and 6.

The use of existing State/Territory tests with minimal alterations is recommended because it presents the most appropriate basis for making equivalences among State/Territory tests. By administering tests of other States/Territories to students, it would be possible to establish equivalences among existing State/Territory tests. Test administration logistics would be simple. Standard errors associated with the tests can be lowered considerably. Details of the scheme can be found in section 3 of this report. Six tests of aspects of literacy are used in the country:

- BST for New South Wales and South Australia
- DART for the Australian Capital Territory and Tasmania
- LAP for Victoria

- MAP for the Northern Territory
- MSE for Western Australia
- NET for Queensland.

Each State/Territory needs to be administered one test from another State/Territory besides its own test in order to provide a minimal basis for forming equivalences. The test administration in Phase Two will, therefore, have each State/Territory taking two tests: its own test (the Home Test) and a test from another State/Territory (the Foreign Test).

2.3 Overview of the development of a workable plan

This section provides an overview of the plan to be implemented in Phase Two. Details of the plan are described in section 10. Discussion of the rationale for the major components of the work plan are found in sections 3 to 8 of this report. In working towards a workable plan in Phase One, the Consortium has focused on the following requirements:

- States/Territories be consulted
- Phase Two is to be completed by the end of 1997
- The plan needs to be cost-effective.

The plan described below meets the three requirements above. The caveat on the above is that negotiations with States/Territories during the short timeframe of Phase One (just slightly over four months) have been focused on major issues to ensure the feasibility of Phase Two. Discussions are still on-going with States/Territories. The plan presented in this report, therefore, represents what seems achievable at the current state of understanding and agreement with States/Territories. It should be pointed out that all major issues have been clarified. What remain to be negotiated are specific details in some of the procedures. The following are some examples:

- The exact number of classes/schools
- The details of the Northern Territory and Western Australian additional small samples
- The decision of the exact test dates in each State/Territory.