



Australian Primary Principals Association and the  
Centre for Applied Educational Research,  
The University of Melbourne

**The Place of Literacy and Numeracy  
In the Primary School Curriculum**

**A National Survey**

**Peter W. Hill  
Rosalind Hurworth  
Kenneth J. Rowe**

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## Foreword

Early in 1997, the Australian Primary Principals Association (APPA) commenced discussions with the Commonwealth Government, through the Department of Employment, Education, Training and Youth Affairs (DEETYA), with the purpose of researching, identifying and promoting literacy and numeracy in the primary school curriculum. It was proposed that the research would be conducted in conjunction with the Centre for Applied Educational Research (CAER) at The University of Melbourne.

An application to conduct a project was subsequently lodged with DEETYA. Following the success of the application, CAER and APPA commenced work on the project in May 1997. The project sought to undertake a national survey that would:

- gauge the extent to which the curriculum of primary schools has changed in recent years and in what ways, with particular focus on the amount and breadth of curriculum coverage;
- obtain the perceptions of school principals regarding the extent to which teachers in their schools have accommodated changes in curriculum emphasis in recent years and the impact of these changes on literacy and numeracy teaching;
- obtain accurate information on the time, effort and other resources devoted to specific literacy and numeracy instruction, particularly during the early years of primary schooling and how this has changed in recent years; and
- make recommendations on ways in which schools can prevent overloading of the curriculum, maintain literacy and numeracy as a priority and improve learning across all key learning areas.

The outcomes of this study clearly indicate that schools across Australia have not only sought to broaden the curriculum but have placed a much greater emphasis on literacy and numeracy in the last three years. This response has been due largely to external pressures, particularly the increased focus on improved outcomes in the early years of schooling that has been pursued and supported at the Commonwealth level. The greatest impact has been an increased emphasis on literacy in the early years but the study also indicates a major emphasis on the use of computers and technology in the classroom.

In considering the outcomes of the study the Australian Primary Principals Association (APPA) presents the following recommendations for discussion and consideration:

- A further study is required to determine whether the increased focus on literacy and numeracy has actually contributed significantly to improved student outcomes.
- The study clearly indicates that the clarity and coherence of the curriculum, the availability of extra resources and increased access to professional development are perceived to have the most positive impact on student progress. The major impact to date has been in the area of literacy but these same factors will be equally important in the development of a strategy for further enhancing numeracy outcomes.
- The impact of computers and technology in our schools has been shown to be significant and is evident in the increased time devoted to technology in the classroom. To use these tools effectively in further improving student outcomes in literacy and numeracy there needs to be equitable access to the technology for all students and teachers, increased professional development for teaching and non-teaching staff and a high level of technical support.
- Further study is required into the changing nature of the principal's role. The study confirmed that increased time is being spent on areas including parent communication, school governance and student discipline and welfare direct energy and resources away from the educational leadership responsibilities. An examination of structures and strategies to balance the leadership and management roles within our schools would be valuable.
- The perceived reduction in the time being allocated to the areas of The Arts, Studies of Society and Environment, and Science is a concern. With an increasing number of social issues confronting schools and their communities a balanced and comprehensive program is essential. Areas of the curriculum where outcomes can not be so easily measured but where the impact on personal and social growth is significant must be safeguarded.

- The study indicates that program implementation is most effective when outcomes and expectations are clearly articulated and supported not only at the State and Territory level but also nationally. The success of the initiatives in literacy particularly should serve as a model for support and development in other key learning areas.
- The study findings suggest difficulties in the implementation of LOTE programs in many of our schools. Several states have made an impact with recent policy initiatives but a significant number of students are not catered for. A lack of readily available trained staff creates concern as do the resources needed for teaching a second language when an emphasis on improved literacy and numeracy outcomes is the highest priority. Effective models for the implementation of LOTE need further examination.
- The study has shown that principals perceive a strong link between student progress and professional development. Teachers value effective professional development and when success in the classroom follows there is an increased desire for learning. The support and development of the teaching service is fundamental to both the effectiveness of our schools and the status of teaching.
- The study has illustrated that access to appropriately trained specialist staff has been a critical factor in improving learning across all key learning areas. Consideration needs to be given to the on-going training of specialists and support teachers in the key areas of literacy and numeracy.
- Outcomes of the study confirm the perception that the curriculum is 'overcrowded'. The broadening of expectations is seen as having a significant negative impact on student progress. This negative influence on student outcomes needs to be recognised and further work is required into effective strategies to overcome this perception.

The Australian Primary Principals Association sees these issues as critical in the development and maintenance of effective schools that produce quality outcomes for all Australian students. The concept of partnerships at school community level and also in the national arena is a critical element in this development and the Association would welcome continuing involvement in dealing with these recommendations.

The Australian Primary Principals Association is indebted to Professor Peter Hill, Dr Ken Rowe, Ms Rosalind Hurworth and Mr Tim Jones (CAER) for their efforts in developing the survey instrument and in collating, analysing and interpreting the responses. APPA also thanks the members of the Association's National Executive Council who trialled the questionnaire and members across all States/Territories who contributed their time and effort in responding to the survey instrument. Key members of APPA have reviewed the report and the Association has pleasure in presenting the findings and recommendations for consideration.

It is our hope that the findings of this study will inform both policy makers and assist practitioners in delivering the best possible outcomes for all Australian students and school communities

Chris Cameron

Immediate Past President,  
Australian Primary Principals Association Inc.

## 1 Background to the survey

This study was carried out as part of the Commonwealth Government's *Literacy – Grants for National Literacy Strategies and Projects* program. The objective of this program is to identify, research and implement strategic national initiatives and developments in literacy and numeracy.

The motivation for the study was a desire to know more about the place of literacy and numeracy within the primary school curriculum and about the priority schools are attaching to them.

Through its membership, the Australian Primary Principals Association (APPA) had become aware of pressures on schools in recent years to broaden their curricular offerings. In addition, there was a widespread view that schools have been under considerable pressure in recent years to add more to the curriculum and to address social issues such as alcohol and substance abuse, personal health and safety, and so on.

Many members of the APPA were of the view that the primary school curriculum had become 'overcrowded'. Less certain was the extent to which any such over-crowding had impacted on the time and resources available specifically for the teaching of literacy and numeracy. This was seen as a significant issue because any reduction in time and resources for literacy and numeracy is likely to be associated with negative effects on literacy and numeracy standards, as well as on teacher and school effectiveness.

These considerations led to the notion of a national survey to obtain information about the place of literacy and numeracy in the primary school curriculum. Accordingly, an application was submitted to Department of Employment, Education, Training and Youth Affairs (DEETYA), on behalf of the Australian Primary Principals Association and the Centre for Applied Educational Research, to undertake such a survey.

## 2 Influences on the curriculum of Australian primary schools

There is no doubt that one of the greatest influences on the curriculum of Australian primary schools in recent years has been the development, promotion by systems and implementation by schools of curriculum frameworks covering eight key learning areas. While the details of these curriculum frameworks differ somewhat among States and Territories, all show a strong resemblance to national frameworks developed through a process of national collaboration and subsequently published by the Curriculum Corporation. The degree of acceptance of these curriculum frameworks has been relatively high. As a consequence, there are not major differences between the curricula of schools within, and across, different States and Territories or across Government, Catholic and independent schools.

There is also little doubt that these curriculum frameworks have helped promote the value of a broad curriculum and have identified a wide range of learning outcomes that schools might seek to promote in the eight key learning areas of the Arts, English, Health and Physical Education, Languages other than English, Mathematics, Science, Studies of Society and the Environment, and Technology. To the extent that they generate an expectation that all schools can, and will, offer a comprehensive curriculum based on these eight key learning areas, it is reasonable to suppose that they have contributed to pressures for a broadening of the curriculum of primary schools and perhaps also to the perception that the curriculum has become 'overcrowded'.

On the other hand, the perception of an 'overcrowded' curriculum pre-dates the national collaborative work on curriculum frameworks. It was something that was evident to the Review Committee chaired by Professor Peter Karmel and discussed in their report *Quality of Education in Australia*.<sup>1</sup> The report noted that there was no shortage of statements at the highest level of generality about the goals, aims or purposes of schooling, but no ready agreement about the details or about the priorities to be attached to different outcomes. The report states:

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<sup>1</sup> Karmel, P. (Chairman) (1985). *Quality of education in Australia*. Canberra: Australian Government Publishing Service.

Realistically, schools cannot be expected to pursue successfully a broad range of sometimes internally inconsistent objectives. Neither can they be expected to achieve satisfactorily an increasing range of objectives not to encompass a steadily expanding curriculum. (§5.4, p.69)

Apart from resource limits, there are both human and physical limits to the amount of time the students themselves are able to devote to schooling and to learning processes. Even increases in the lengths of the school day and year and the average duration of schooling may not provide sufficient student time to permit schools to cover the extensive range of knowledge, skills, values and attitudes which are from time to time proposed as school responsibilities. Where these limits are coupled with those of resource availability and human frailty, schools and school authorities must of necessity select the objectives they pursue and the vigour with which they pursue them. (§5.5, pp.69-70).

The approach of the Review Committee to this problem, so evident in 1985, was to advance the notion of 'competence' as the main goal of schooling. They defined competence as the ability to use knowledge and skills effectively to achieve a purpose and argued that priority be given to the pursuit of a set of five competencies, namely those of: 1) acquiring information, 2) conveying information, 3) applying logical processes, 4) practical tasks, and 5) group tasks. The recommendations of the Committee regarding their notion of competences were largely ignored following the release of the 1985 Karmel report, but the concept re-surfaced in the report of the committee chaired by Brian Finn entitled: *Young People's Participation in Post-Compulsory Education and Training*<sup>2</sup> which recommended the development of a set of employment-related 'key competencies' for effective participation in the emerging patterns of work and work organisation.

In short, the notion of an 'overcrowded' curriculum is not a new one, nor is the notion of the need to establish priorities within the curriculum and to emphasise core learning outcomes or competencies, particularly those of literacy and numeracy.

Another important influence on the curriculum of schools has been external pressure from society at large for schools to respond to current social issues and problems by adding new content to the curriculum. Once again, this is not a new phenomenon. The Review Committee observed as follows:

... there is continuing pressure for the addition of new material to the curriculum. Few of the potential additions are trivial but rarely are there corresponding suggestions of things that might be dropped. Driver education, political education, aspects of health education are just a few examples of claims for new or expanded space in the school curriculum. . (§6.6, p. 81)

The authors went on to observe that "...without a positive narrowing of the focus of the curriculum, schools will attempt so much that they will be unable to do any of it well" (§6.7, p.81).

Yet another influence on the curriculum of schools has been the expectations of parents. With the growing awareness of the importance of a good education and the increased capacity to choose which school their child will attend, many parents are now taking an increased interest in the curricular choices provided by different schools. In order to maintain 'market share' in terms of student enrolments, many schools have sought to broaden their curricular offerings to make them more attractive to parents and students. Inevitably, these 'market' pressures tend to come primarily from more educated parents on behalf of generally more advantaged students. They also tend to focus on ensuring a greater focus on computers in the classroom, on languages other than English and on areas such as the visual and performing arts. They tend not to focus on literacy and numeracy, which are often taken for granted by parents seeking greater opportunities for their children.

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<sup>2</sup> Finn, B. (Chair) (1991). *Young People's Participation in Post-Compulsory Education and Training*. Report of the Australian Education Council Review Committee. Canberra: Australian Government Publishing Service.

### 3 Research questions

In view of the above, the aim of the survey was to seek answers to the following questions:

- To what extent has the curriculum in primary schools changed during the past three years (1996-1998) in terms of broadening or narrowing, more or less, and in what ways?
- How much time, effort and resources are being devoted to specific literacy and numeracy instruction in primary schools, and to what extent have these changed over recent years?
- What are the perceptions of primary school principals regarding the extent to which teachers in their schools have been supported with respect to, and have accommodated to changes in curriculum emphasis during the past three years?
- What are the perceptions of principals regarding those factors that have most influenced the teaching of literacy and numeracy?
- What are the perceptions of principals regarding the positive steps that could be taken to ensure that priority is given to the teaching of literacy and numeracy?

### 4 Methodology

#### Questionnaire design and construction

In consultation with a small group of leading principals, a questionnaire for distribution by mail was developed to address the above research questions. The item content was designed mainly around those requiring principals to indicate the extent to which various activities had *increased* or *decreased* over the last three years. The final two research questions were addressed through the inclusion of two open-ended response questions. It was estimated that the questionnaire would take approximately 20 minutes to complete. Particular attention was given to ensuring the use of terminology that would be familiar to or would be understood by principals in all States and Territories.

Trials of an initial draft of the questionnaire were undertaken involving 20 primary school principals who were asked to comment on:

- the *prima facie* 'validity' of the item content in terms of the specified research questions (as outlined above)
- clarity of item wording and instructions for responses, and to
- specific suggestions for item inclusion, exclusion and/or modification.

Comments made by principals on the trial version of the questionnaire resulted in modifications to several items. The final version of the questionnaire and the covering letter to school principals are reproduced as Appendix 1.

#### Sample design

With the assistance of the 1997/98 *National Schools' Data Base* supplied by DEETYA, an appropriate sampling frame was constructed, with all primary schools classified by 8 State/Territories, 3 Sectors (Government, Catholic and independent), and 7 school enrolment size strata. Given that there was a target population of 7792 schools providing primary education (with complete enrolment data), it was estimated that a proportional 10% sample drawn from each State and/or Territory would suffice to ensure stable estimates – at or beyond 95% confidence limits ( $N_t = 780$ ).<sup>3</sup> Hence, a proportional, stratified sample was drawn, with 10% of schools in each State/Territory being selected randomly within the 3 sectors, but with probability proportional to 7 enrolment size

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<sup>3</sup> While completed responses from only 780 schools were required to meet these sampling precision constraints, it was decided to increase the number of mail-outs to 1200 due mainly to the well-known and notorious *non-response bias* from postal surveys.

strata. Because approximately 50% of primary education providers in all Australian States and Territories have enrolments of less than 200 students, the adoption of a simple random sample would have yielded a disproportionate number of small schools. To avoid this, it was essential to stratify the sample by school enrolment size to ensure that all schools within each strata, State/Territory and sector) had an equal probability of selection. Details of the sampling design are presented in Appendix 2.

### Mail-outs and returns

Unfortunately, the initial mail-out of 1200 questionnaires in early April 1998, resulted in only a small proportion of completed questionnaires being returned by the due date of May 1, 1998 (i.e., 25%). Feedback from schools suggested that the low response rate reflected reluctance on the part of many principals to devote time to complete the questionnaire, given other demands on their time. Two follow-up mail-outs were undertaken – the first in June and the second in July – which yielded additional returns. Useable responses were received from 459 schools of the total target sample of 780. Table 1 summarises details of the achieved sample. The highest percentage of target sample returns were from Tasmania (86.5%), ACT (80.1%) and Victoria (71%).

**Table 1. Achieved Sample of Primary Schools by State/Territory and School Enrolment Size**

State/ Territory	School Enrolment Size							Totals	% of Target Sample
	≤ 50	51-200	201-350	351-500	501-650	651-800	> 800		
ACT	-	3	1	2	2	-	-	8	80.1
NSW	14	27	32	27	12	9	3	124	50.1
NT	2	2	2	2	1	-	-	9	58.1
QLD	15	23	13	13	8	4	9	85	58.9
SA	6	16	12	10	1	2	1	48	66.6
TAS	1	4	5	3	2	1	2	18	86.5
VIC	15	42	47	21	5	1	4	135	70.7
WA	4	6	10	4	5	1	2	32	40.8
<b>Totals</b>	<b>57</b>	<b>123</b>	<b>122</b>	<b>82</b>	<b>36</b>	<b>18</b>	<b>21</b>	<b>459</b>	<b>58.8</b>

Despite the relatively low response rate, several computed univariate and multivariate *sampling adequacy* statistics indicated that the obtained estimates for item frequencies and scale means were within the designed 95% confidence limits. That is, the magnitude of these indices suggest that the obtained results have a high probability of replication from samples of similar or larger size drawn from the same population of schools.

### Data analysis and results presentation

The questionnaire provided both quantitative and qualitative data on principals' perceptions of the place of literacy and numeracy in the primary school curriculum. Following data-entry and checking, responses to the questions in sections 1-6 were analysed using the SPSS statistical package to obtain descriptive statistics at the item and scale levels. All scales used in modelling schools' responses (section 14 of this report) were computed using PRELIS<sup>4</sup> and LISREL<sup>5</sup> by fitting maximally-reliable one-factor, congeneric measurement models for the constituent items.<sup>6</sup> To explore the relationships among these scales, structural equation models were fitted using LISREL.

<sup>4</sup> Jöreskog, K.G., & Sörbom, D. (1988). PRELIS: A Program for Multivariate Data Screening and Data Summarization: A Preprocessor for LISREL (2nd ed.). Chicago, IL: Scientific Software, Inc.

<sup>5</sup> Jöreskog, K.G., & Sörbom, D. (1989). LISREL 7 User's Reference Guide. Chicago, IL: Scientific Software, Inc.

<sup>6</sup> Jöreskog, K.G. (1971). Statistical analysis of sets of congeneric tests. *Psychometrika*, **36**, 109-133.

Responses to the open-ended questions in section 7 were transcribed and analysed using the hyperRESEARCH software package for the analysis of qualitative data to establish the frequency of different categories of comments and to identify examples of illustrative comments.

## **5** Executive Summary

The aim of the present study was to investigate the place of literacy and numeracy within the primary school curriculum and the priority schools are attaching to them. The motivation for the study was an appreciation of the importance of literacy and numeracy within the primary school curriculum and a concern that pressures to add more to the curriculum may have been exerting a negative impact on the time, resources and priority given to literacy and numeracy.

A questionnaire was distributed to principals in a stratified random sample of Australian primary schools and usable returns were received from 459 schools. An analysis of these returns indicates a remarkably positive picture. In response mainly to external pressures, schools over the past three years have sought both to broaden the curriculum and to place a greater emphasis on literacy and numeracy. The greatest changes have been an increased emphasis on literacy, especially in the early years, followed by an emphasis on the use of computers and technology in the classroom. The survey thus established that there has been a degree of ‘overcrowding’ of the curriculum, but that this has not adversely affected the time or importance attached to literacy or numeracy. It is also clear that the major emphasis of schools has been on literacy, especially early literacy, rather than on numeracy.

In more detail, the survey established the following findings:

- There is a tendency for schools to perceive that the time devoted to different curriculum areas has increased over the past three years.
- The areas of the curriculum in which schools perceive the greatest increases in time are English and Technology, followed by Mathematics, Health and Physical Education and LOTE.
- The areas of the curriculum in which schools perceive the greatest decreases in allocated time are *The Arts*, *Studies of Society and Environment*, and *Science*.
- 77.6% of schools reported that the time devoted to English had increased a little or a lot in the initial three years of the primary school and 68.4% reported that the time devoted to English had increased a little or a lot in the last three years of the primary school.
- In the early years, primary schools are devoting on average approximately nine hours a week to literacy and just under four hours a week to numeracy. In the final years, primary schools are devoting just over eight hours a week to literacy and five hours to numeracy.
- Changes in perceptions of time devoted to different curriculum areas are generally consistent across States and Territories with the exception of English, Technology and LOTE, and in particular with responses indicating greater time being devoted to LOTE in Tasmania and Western Australia.
- Over the Years Pre-1 to 7 there is a slight decline in the number of hours per week spent on literacy and a slight increase in the number of hours spent on numeracy in primary schools.
- There is a widespread perception among schools that the amount of time devoted to activities such as parent communication, school governance, curriculum development/implementation, and student discipline and welfare, have increased substantially over the past three years.
- The great majority of schools perceive that over the last three years the curriculum has become broader and that a wider range of curriculum content is being taught.
- The great majority of schools perceive that there has been increased external pressure to add more to the curriculum.
- A majority of schools believe that there is greater clarity about literacy standards that schools are expected to achieve.

- The great majority of schools perceive that over the last three years literacy and to a lesser extent numeracy have increased as priorities and are being given a greater emphasis within the curriculum.
- Most schools believe that students are making the same progress or greater progress in literacy and numeracy and that teachers' confidence about ensuring success in literacy and numeracy is the same or has increased over the past three years.
- Significantly more schools indicated that low achieving students have benefited most from changes to the curriculum as opposed to high achieving students.
- A majority of schools perceive that classroom teachers have experienced some difficulties in adapting to recent changes in curriculum.
- Schools perceive that they have increased freedom to make decisions about the time allocated to different learning areas, if not about content of the curriculum.
- Schools perceive that more financial support had been made available for literacy, particularly literacy intervention for 'at risk' students, but that less financial support has been made available for numeracy.
- Schools perceive that professional development and support have increased for literacy, especially in the early years, but that professional support and development for numeracy have decreased slightly.
- Schools perceive that the most important changes affecting the teaching of literacy have been: new curriculum initiatives; the introduction of new literacy programs; new teaching and organisational strategies; increased professional development and training; the appointment of specialist/support teachers; increased resources or inadequate resources available for literacy, and; increased attention to matching teaching to the needs of students.
- Schools perceive that the most important changes affecting the teaching of numeracy have been: new teaching strategies including the use of new resources; new curriculum initiatives; more resources available for numeracy; the development of school plans/policies for numeracy; increased professional development; an increase in experienced special and support staff, and; increased attention to matching teaching to the needs of students.
- Schools believe that the most positive actions that could be taken to ensure that literacy and numeracy are given priority within the school curriculum are: to increase funding, to increase access to appropriate professional development and training; to increase provision or access to specialist and support staff, and; to reduce overcrowding of the curriculum.

## **6**

### **Changes in curriculum emphasis**

In order to ascertain the extent of changes in the proportion of time allocated to different areas of the curriculum, principals were asked to use a five-point scale ranging from 'decreased a lot' to 'increased a lot' to indicate change over the past three years in each of the eight key learning areas. It is acknowledged that relying on perceptions may not provide an entirely accurate picture of the changes that have actually taken place. On the other hand, it was deemed unrealistic to expect principals to have the time or capacity to provide data relating to the actual change in time allocations. The results are summarised in two tables. Table 2.1 relates to the curriculum for students in their initial three years of primary schooling, while Table 2.2 relates to the curriculum for students in their final three years of primary schooling.

**Table 2.1 Percentage Responses Indicating Perceived Changes in Time Devoted to Eight Curriculum Areas over the Period 1996-1998 for Students in the Initial 3 Years of Primary Schooling**

Learning Area	Decreased a lot	Decreased a little	Remained the same	Increased a little	Increased a lot	Not applicable
1. The Arts	3.1	<b>27.9</b>	<b>49.6</b>	14.3	3.8	1.3
2. English	0.2	2.9	18.8	<b>41.9</b>	<b>35.7</b>	0.4
3. Health and Physical Education	1.6	14.1	<b>52.0</b>	<b>25.1</b>	6.5	0.7
4. Languages other than English	6.3	9.7	<b>35.0</b>	<b>16.3</b>	13.8	19.0
5. Mathematics	0.2	3.5	<b>60.4</b>	<b>26.1</b>	8.6	1.1
6. Science	1.3	<b>23.5</b>	<b>53.1</b>	17.7	3.4	0.9
7. Studies of Society & Environment	2.0	<b>25.8</b>	<b>55.9</b>	13.4	1.8	1.1
8. Technology	0.4	6.5	21.6	<b>41.0</b>	<b>28.7</b>	1.8

**Table 2.2 Percentage Responses Indicating Perceived Changes in Time Devoted to Eight Curriculum Areas Over the Period 1996-1998 for Students in the Final 3 Years of Primary Schooling**

Learning Area	Decreased a lot	Decreased a little	Remained the same	Increased a little	Increased a lot	Not applicable
1. The Arts	7.4	<b>27.4</b>	<b>42.7</b>	17.1	3.8	1.6
2. English	0.4	4.9	25.1	<b>41.7</b>	<b>26.7</b>	1.1
3. Health and Physical Education	0.9	14.2	<b>49.5</b>	<b>27.9</b>	6.1	1.4
4. Languages other than English	4.5	9.5	<b>38.5</b>	<b>23.1</b>	16.3	8.1
5. Mathematics	0.0	5.2	<b>58.9</b>	<b>25.1</b>	9.3	1.6
6. Science	1.1	<b>20.7</b>	<b>51.2</b>	20.2	5.2	1.6
7. Studies of Society & Environment	2.2	<b>25.1</b>	<b>55.4</b>	13.2	2.5	1.6
8. Technology	0.7	6.5	20.0	<b>38.4</b>	<b>31.9</b>	2.5

The first thing that needs to be pointed out is that the results as summarised in Tables 2.1 and 2.2 should be interpreted in the light of the structure of primary schooling as it exists in the States and Territories. This structure is summarised in Table 3.

**Table 3. Structure of Primary Schooling in Different States and Territories**

State/Territory	Initial three years	Final three years
NSW, Vic., Tas., ACT	Pre-Year 1, Year 1, Year 2	Year 4, Year 5, Year 6
SA, NT	Pre-Year 1, Year 1, Year 2	Year 5, Year 6, Year 7
Qld., WA	Year 1, Year 2, Year 3	Year 5, Year 6, Year 7

The data summarised in Tables 2.1 and 2.2 indicate that there is a tendency for schools to perceive that the time devoted to different key learning areas has increased over the past three years. That is, the percentage of responses indicating an *increase* in the amount of time to various key learning areas exceeds the percentage of responses indicating a *decrease*. This perception of an overall increase in the time allocated to different key learning areas is unlikely to reflect an increase in the length of the school year or school day, since there is no evidence to suggest that these have changed significantly over the last three years. To the extent that the responses of principals reflect an accurate perception of change over the past three years, it must be assumed that schools are making increasing use of integrated approaches to teaching particular key learning areas. (Evidence regarding the extent to which schools make use of integrated approaches to teaching is presented in section 9.)

In both the first and last three years of the primary school, the areas of the curriculum in which schools perceive the greatest increases in time are English and Technology, followed by Mathematics, Health and Physical Education and LOTE. Conversely, the areas of the curriculum in which schools perceive the greatest decreases in allocated time are The Arts, Studies of Society and Environment, and Science.

It would be difficult to argue on the basis of these results that there has been a reduction in the attention paid to literacy and numeracy within the primary school curriculum in recent years. While it is inappropriate to see literacy and numeracy as exclusively associated with English and mathematics, the proportions of time allocated to English and mathematics provide a good indicator of the time devoted specifically to literacy and numeracy teaching.

From Tables 2.1 and 2.2 it can be seen that the majority of schools perceived an increase in the time allocated to English. 77.6% of schools reported that the time devoted to English had increased a little or a lot in the initial three years of the primary school and 68.4% reported that the time devoted to English had increased a little or a lot in the last three years of the primary school.

Figures 1.1 and 1.2 provide a graphical display of perceived changes in the time allocated to different curriculum areas in each of the States and Territories. They indicate a generally consistent pattern across systems. This suggests that over the past three years the curricula of Australian primary schools have been affected more by national than by system influences. The exceptions relate to perceived time allocations for English and Technology and LOTE. In particular, it is evident that there has been a significant increase over the past three years in the time allocated to LOTE in Tasmania and Western Australia, reflecting recent policy initiatives in those States.

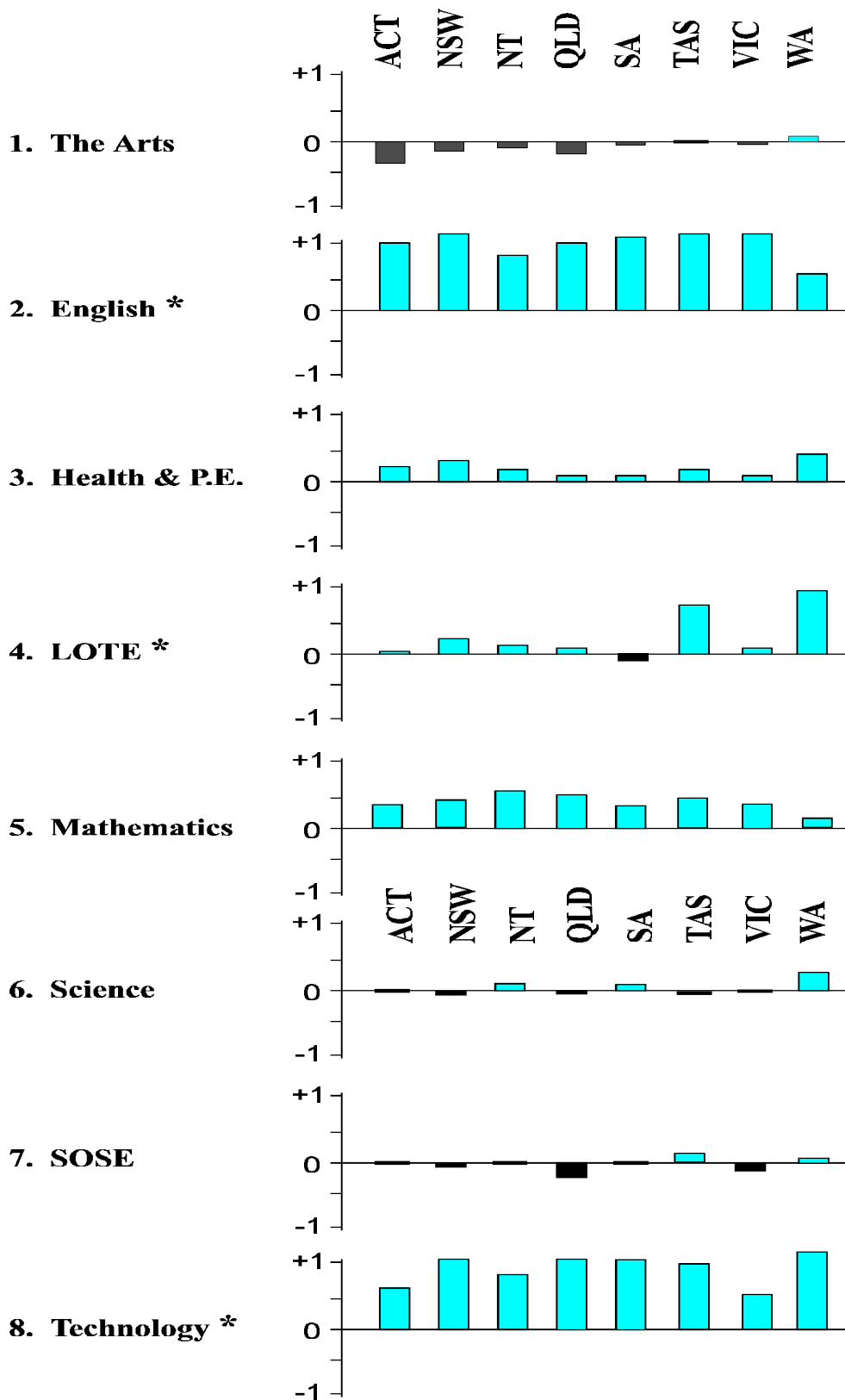


Figure 1.1 Relative changes in time devoted to eight curriculum areas during 1996-1998 for students in the initial 3 years of their primary schooling, by State/Territory (\*  $p < 0.01$ )

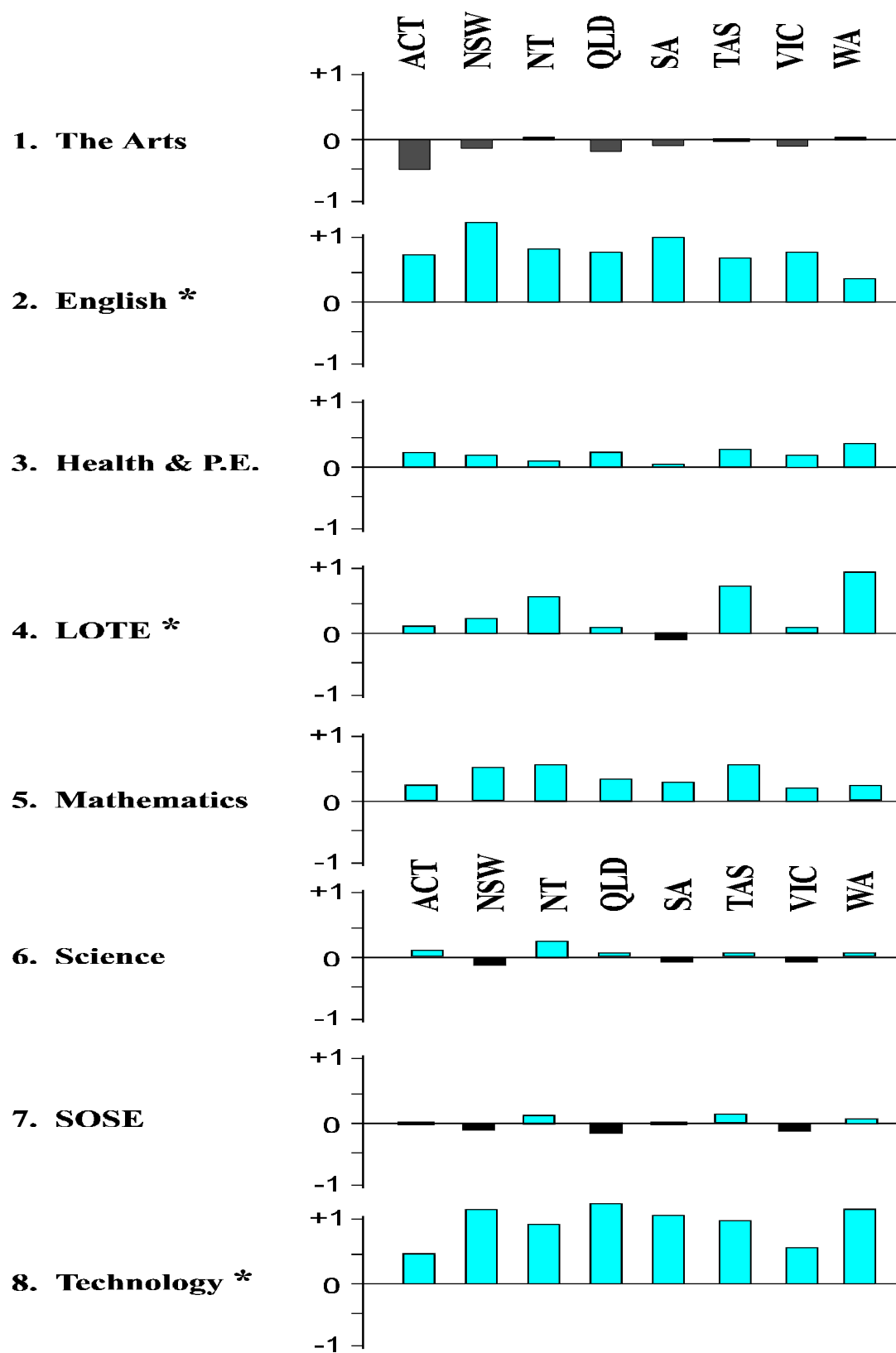


Figure 1.2 Relative changes in time devoted to eight curriculum areas during 1996-1998 for students in the final 3 years of their primary schooling, by State/Territory (\*  $p < 0.01$ )

Changes in curriculum emphasis were also explored by means of a rating scale in which principals were asked to respond on a five-point scale to a series of bipolar statements about the curriculum. The relevant items and the percentage of responses on the five-point scale for each item are summarised in Tables 4 to 7.

**Table 4. Percentage Estimates in 5 Categories for Situation Applying During the Previous Three Years (1996-1998): Items Relating to Broadening of the Curriculum**

1. The curriculum has become <b>broader</b>	<b>38.6</b>	<b>40.6</b>	11.5	8.8	0.4	The curriculum has become <b>narrower</b>
4. A <b>wider</b> range of curriculum content is being taught in the <b>first 3 years</b> of schooling	24.3	39.7	24.1	10.8	1.1	A <b>narrower</b> range of curriculum content is being taught in the <b>first 3 years</b> of schooling
9. A <b>narrower</b> range of curriculum content is being taught in the <b>final 3 years</b> of primary schooling	1.6	9.8	22.3	<b>50.4</b>	15.8	A <b>broader</b> range of curriculum content is being taught in the <b>final 3 years</b> of primary schooling
18. Parents express a desire for the school to offer a <b>broader range</b> of subjects and specialist programs	14.3	17.0	<b>41.5</b>	<b>20.1</b>	7.1	Parents express a desire for the school to concentrate on a <b>narrower range</b> of subjects and specialist programs
25. There is increased external pressure to add more to the curriculum	<b>64.5</b>	<b>26.9</b>	6.8	1.5	0.2	There is less external pressure to add more to the curriculum
5. The school has <b>increased freedom</b> to make decisions about curriculum content	6.6	<b>28.4</b>	<b>29.3</b>	22.5	13.2	The school has <b>less freedom</b> to make decisions about curriculum content
33. The school has had <b>more freedom</b> in making decisions about the time allocated to different learning areas	9.1	<b>34.7</b>	<b>35.1</b>	15.9	5.3	The school has <b>had less freedom</b> in making decisions about the time allocated to different learning areas

From Table 4 it is evident that the great majority of schools perceive that over the last three years the curriculum has become broader and that a wider range of curriculum content is being taught. 78% of principals indicated that they agreed or strongly agreed with the statement “The curriculum has become broader”. It is also evident from Table 4 that principals perceive increased external pressure to add more to the curriculum, particularly from parents. Interestingly, while schools perceive themselves to be subject to external pressures to broaden the curriculum, they also acknowledge that they have had increased freedom to make decisions about the time allocated to different learning areas, if not about content of the curriculum.

Table 5 summarises responses to a set of five items that focus specifically on the extent to which increased priority and emphasis has been given to literacy within the curriculum. Table 5 provides clear evidence that the great majority of principals believe that literacy has increased in importance and that relative to other curriculum areas a greater emphasis is being placed on literacy. This finding is in line with the data summarised in Tables 2.1 and 2.2 regarding changes in time devoted to the eight curriculum areas. It is noteworthy that 77.6% of schools reported that the time devoted to English had increased a little or a lot in the initial three years of the primary school and 68.4% reported that the time devoted to English had increased a little or a lot in the last three years of the primary school. It is also clear that increased time and attention are being given to coordinating literacy within schools.

**Table 5. Percentage Estimates in 5 Categories for Situation Applying During the Previous Three Years (1996-1998): Items Relating to Priority and Emphasis on Literacy**

13. Literacy has <b>increased</b> in importance as a priority in this school	<b>41.1</b>	<b>45.3</b>	12.5	1.1	0.0	Literacy has <b>decreased</b> in importance as a priority in this school
31. Relative to other curriculum areas, <b>greater emphasis</b> is being placed on <b>literacy</b> teaching and learning	<b>43.6</b>	<b>45.4</b>	8.8	1.5	0.7	Relative to other curriculum areas, <b>less emphasis</b> is being placed on <b>literacy</b> teaching and learning
2. The time allocated for specific teaching of <b>literacy</b> in the <b>first 3 years</b> of schooling has <b>decreased</b>	1.1	5.5	19.4	<b>49.1</b>	<b>24.9</b>	The time allocated for specific teaching of <b>literacy</b> in the <b>first 3 years</b> of schooling has <b>increased</b>
12. <b>More</b> attention is being paid to <b>literacy</b> relative to other curriculum areas in the <b>final 3 years</b> of primary schooling	16.4	<b>45.5</b>	<b>28.9</b>	9.0	0.2	<b>Less</b> attention is being paid to <b>literacy</b> relative to other curriculum areas in the <b>final 3 years</b> of primary schooling
34. <b>Literacy</b> is an area that has required <b>increased</b> levels of leadership and co-ordination	<b>45.3</b>	<b>45.5</b>	8.2	1.1	0.0	<b>Literacy</b> is an area that has required <b>decreased</b> levels of leadership and co-ordination

Table 6 summarises responses to parallel items relating to the priority and emphasis being placed on numeracy. While responses tend to indicate that increased priority and attention are being given to numeracy, the trend is nothing like as strong as it is for numeracy. In particular it is noteworthy that a significant number of schools indicated that there is less time available for the specific teaching of numeracy during the final three years of the primary school.

Table 7 summarises responses to a set of four items relating to changes in the coherence, clarity and depth. Despite pressures to add more to the curriculum, it would seem that the majority of schools do not believe that the curriculum has become more fragmented. In addition, a majority believe that there is more clarity about student literacy standards that schools are expected to achieve. On the question as to whether depth of coverage in literacy and numeracy has increased or decreased, there was a tendency for more principals to indicate greater depth of coverage in literacy, but opinions were evenly divided between increased or decreased depth of coverage in numeracy.

**Table 6. Percentage Estimates in 5 Categories for Situation Applying During the Previous Three Years (1996-1998): Items Relating to Priority and Emphasis on Numeracy**

39. Relative to other areas of the curriculum, <b>less emphasis</b> is being placed on <b>numeracy</b> teaching and learning	2.0	14.1	<b>44.4</b>	<b>36.0</b>	3.5	Relative to other areas of the curriculum, <b>greater emphasis</b> is being placed on <b>numeracy</b> teaching and learning
28. Numeracy has <b>decreased</b> in importance as a priority in this school	0.7	9.3	<b>43.4</b>	<b>36.1</b>	10.6	Numeracy has <b>increased</b> in importance as a priority in this school
30. The time allocated for specific teaching of <b>numeracy</b> in the <b>first 3 years</b> of primary schooling has <b>decreased</b>	0.4	13.4	<b>61.9</b>	<b>20.9</b>	3.3	The time allocated for specific teaching of <b>numeracy</b> in the <b>first 3 years</b> of primary schooling has <b>increased</b>
3. There is <b>more time</b> available for specific teaching of <b>numeracy</b> in the <b>final 3 years</b> of primary schooling	2.7	14.8	<b>45.0</b>	<b>29.5</b>	8.1	There is <b>less time</b> available for specific teaching of <b>numeracy</b> in the <b>final 3 years</b> of primary schooling
37. <b>Numeracy</b> is an area that has required <b>decreased</b> levels of leadership and co-ordination	1.3	6.0	<b>40.6</b>	<b>38.9</b>	13.2	<b>Numeracy</b> is an area that has required <b>increased</b> levels of leadership and co-ordination

**Table 7. Percentage Estimates in 5 Categories for Situation Applying During the Previous Three Years (1996-1998): Items Relating to Curriculum Coherence, Clarity and Depth**

8. The curriculum overall has become more <b>coherent</b>	6.0	<b>30.8</b>	<b>31.4</b>	22.3	9.5	The curriculum overall has become more <b>fragmented</b>
10. There is <b>more clarity</b> about students' <b>literacy standards</b> that schools are expected to achieve	<b>20.8</b>	<b>46.7</b>	16.0	12.5	3.9	There is <b>less clarity</b> about students' <b>literacy standards</b> that schools are expected to achieve
40. The <b>depth</b> of curriculum coverage for areas other than literacy and numeracy in the <b>first 3 years</b> of schooling has <b>increased</b>	7.9	<b>28.1</b>	<b>39.5</b>	19.3	5.1	The <b>depth</b> of curriculum coverage for areas other than literacy and numeracy in the <b>first 3 years</b> of schooling has <b>decreased</b>
16. The <b>depth</b> of curriculum coverage for areas other than literacy and numeracy in the <b>final 3 years</b> of primary schooling has <b>increased</b>	11.0	<b>28.5</b>	<b>26.2</b>	<b>25.8</b>	8.5	The <b>depth</b> of curriculum coverage for areas other than literacy and numeracy in the <b>final 3 years</b> of primary schooling has <b>decreased</b>

## 7

### Time allocated to literacy and numeracy

Tables 8.1 and 8.2 present estimates by principals of the average number of hours per week spent specifically on literacy and numeracy in each year of schooling. In addition, to give some idea of the variability around average figures, the standard deviation of these estimates together with minimum and maximum values are provided.

Table 8.1 indicates that in the early years, primary schools are devoting, on average, approximately nine hours a week to literacy. In the final years, primary schools are devoting just over eight hours a week to literacy. At the extremes are schools who claim to devote no time specifically to the teaching of literacy and others that claim to

devote all their time to the teaching of literacy. Schools in the Northern Territory devote, on average, the highest proportion of time to literacy, while schools in the ACT devote, on average, the lowest proportion of time to literacy.

**Table 8.1 Estimates of the Mean Number of Hours Per Week Spent on LITERACY, by Year Level and State/Territory**

Year:	Pre-1	1	2	3	4	5	6	7
<b>Mean:</b>	<b>8.9</b>	<b>9.2</b>	<b>9.1</b>	<b>8.7</b>	<b>8.5</b>	<b>8.3</b>	<b>8.3</b>	<b>8.0</b>
<b>SD:</b>	<b>4.3</b>	<b>4.0</b>	<b>3.9</b>	<b>3.7</b>	<b>3.6</b>	<b>3.5</b>	<b>3.4</b>	<b>3.4</b>
<b>Min:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1.5</b>	<b>1.5</b>	<b>0</b>	<b>1.5</b>	<b>0</b>
<b>Max:</b>	<b>38</b>	<b>38</b>	<b>38</b>	<b>36</b>	<b>36</b>	<b>34</b>	<b>34</b>	<b>30</b>
<b>ACT</b>	7.3	6.4	5.8	5.6	5.6	5.2	5.2	0.0
<b>NSW</b>	8.8	8.7	8.6	8.4	8.2	8.1	8.2	5.6
<b>NT</b>	<b>10.8</b>	<b>11.5</b>	<b>11.0</b>	<b>10.6</b>	<b>9.9</b>	<b>9.9</b>	<b>9.9</b>	<b>9.9</b>
<b>QLD</b>	7.4	8.9	8.8	8.5	8.1	7.9	8.0	7.9
<b>SA</b>	9.5	9.6	9.6	8.9	9.0	8.5	8.5	8.3
<b>TAS</b>	8.0	8.5	7.8	8.2	8.7	8.4	8.2	7.3
<b>VIC</b>	<b>9.7</b>	9.6	9.6	8.9	8.8	8.6	8.6	7.9
<b>WA</b>	7.0	9.7	9.6	9.0	8.6	8.4	8.4	8.4
<i>p</i>	<b>&lt; 0.05</b>	0.18	0.09	0.34	0.34	0.34	0.35	0.28

**Table 8.2 Estimates of the Mean Number of Hours Per Week Spent on NUMERACY, by Year Level and State/Territory**

Year:	Pre-1	1	2	3	4	5	6	7
<b>Mean:</b>	<b>4.6</b>	<b>4.8</b>	<b>4.9</b>	<b>4.9</b>	<b>5.0</b>	<b>5.0</b>	<b>5.1</b>	<b>5.1</b>
<b>SD:</b>	<b>2.6</b>	<b>2.1</b>	<b>2.0</b>	<b>2.0</b>	<b>2.0</b>	<b>2.0</b>	<b>1.7</b>	<b>1.7</b>
<b>Min:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.7</b>	<b>0.7</b>	<b>0.8</b>	<b>0.8</b>	<b>0</b>
<b>Max:</b>	<b>30</b>	<b>23</b>	<b>23</b>	<b>23</b>	<b>23</b>	<b>23</b>	<b>23</b>	<b>10</b>
<b>ACT</b>	4.8	4.9	5.1	4.4	4.5	4.4	4.6	0.0
<b>NSW</b>	4.3	4.3	4.9	4.6	4.7	4.8	4.8	4.6
<b>NT</b>	4.3	4.8	4.8	4.8	5.0	5.0	5.1	5.1
<b>QLD</b>	4.7	<b>5.3</b>	<b>5.4</b>	<b>5.5</b>	5.3	5.3	5.4	5.4
<b>SA</b>	4.8	4.7	4.9	5.0	5.2	5.2	5.3	5.2
<b>TAS</b>	5.0	<b>5.5</b>	<b>5.4</b>	<b>5.5</b>	<b>6.0</b>	5.7	5.7	5.3
<b>VIC</b>	4.9	4.9	4.9	5.0	5.0	5.1	5.1	4.7
<b>WA</b>	4.3	4.2	4.2	4.3	4.6	4.6	4.7	4.7
<i>p</i>	0.79	<b>0.02</b>	<b>0.04</b>	0.07	0.16	0.31	0.39	0.51

Table 8.2 indicates that in the early years, primary schools are devoting on average just under five hours a week specifically to the teaching of numeracy. In the final three years, this time allocation increases slightly to just over five hours a week. At the extremes there are schools that do not regard that they devote any time specifically to the teaching of numeracy and others that see themselves as specifically teaching numeracy for much of the total available time. Schools in Queensland and Tasmania appear to devote a higher proportion of time to numeracy in Years 1 to 3 than schools in other States and Territories.

Tables 8.1 and 8.2 indicate that over the Years Pre-1 to 7 there is a slight decline in the number of hours per week spent on literacy and a slight increase in the number of hours spent on numeracy in primary schools.

## 8 Curriculum integration and specialisation

Tables 9.1 and 9.2 provide specific information on whether particular key learning areas are taught within schools, taught as a separate subject or integrated with the teaching of other subjects. These tables reveal distinctive patterns of provision for different key learning areas.

**Table 9.1 Percentage Responses for 5 Categories of Teaching Method Across Nine Curriculum Areas for the INITIAL 3 Years of Primary Schooling**

Learning Area	A Not taught to students	B Taught as a separate subject by the class teacher	C Integrated with the teaching of other learning areas	D Combination of B & C	E Taught by a specialist teacher
1. English	0.0	10.6	<b>17.0</b>	<b>71.5</b>	0.9
2. Maths	0.0	<b>48.3</b>	5.8	<b>45.0</b>	0.9
3. Science	0.2	17.5	<b>27.3</b>	<b>49.9</b>	5.1
4. SOSE*	0.4	9.2	<b>36.4</b>	<b>53.3</b>	0.7
5. LOTE	<b>33.3</b>	10.5	2.7	5.0	<b>48.5</b>
6. Art	0.0	13.0	19.7	<b>43.0</b>	<b>24.4</b>
7. Music	1.6	<b>19.5</b>	8.6	<b>19.3</b>	<b>51.0</b>
8. Health	0.2	22.6	<b>30.2</b>	<b>40.4</b>	6.7
9. P.E./Sport	0.0	<b>42.6</b>	3.3	12.6	<b>41.5</b>

\* Studies of Society & the Environment

Of particular note is the high proportion of responses in column D for subject English, indicating that in the majority of schools, English is taught both as a separate subject and integrated with the teaching of other learning areas. Also of note is the pattern of responses for mathematics, which indicates that, in most schools, mathematics is taught either as a separate subject by the class teacher or as a combination of separate subject and integrated with the teaching of other learning areas.

**Table 9.2 Percentage Responses for 5 Categories of Teaching Method Across Nine Curriculum Areas for the FINAL 3 Years of Primary Schooling**

Learning Area	A Not taught to students	B Taught as a separate subject by the class teacher	C Integrated with the teaching of other learning areas	D Combination of B & C	E Taught by a specialist teacher
1. English	0.0	<b>16.6</b>	13.2	<b>69.4</b>	0.9
2. Mathematics	0.0	<b>59.6</b>	4.7	<b>34.4</b>	1.3
3. Science	0.0	<b>28.9</b>	20.2	<b>44.4</b>	6.5
4. SOSE*	0.4	16.0	<b>29.9</b>	<b>52.6</b>	1.1
5. LOTE	<b>14.1</b>	12.5	1.4	3.6	<b>68.3</b>
6. Art	0.0	20.2	16.4	<b>37.3</b>	<b>26.1</b>
7. Music	2.5	<b>22.2</b>	8.3	13.0	<b>53.9</b>
8. Health	0.5	<b>28.4</b>	25.1	<b>40.2</b>	5.9
9. P.E./Sport	0.0	<b>44.8</b>	2.7	10.4	<b>42.1</b>

\* Studies of Society & the Environment

## 9 Time devoted to other activities

Any discussion of changes in time allocations to different areas of the curriculum needs to be interpreted in the light of related pressures on staff in schools to devote more time and attention to co-curricular or extra curricular activities and activities that relate to the running of schools. Table 10 summarises perceptions of primary school principals regarding changes over the last three years in the amount of time devoted to a range of such activities.

**Table 10. Percentage Estimates of Changes in the Amount of Time Devoted to Ten Activities During the Previous Three years (1996-1998)**

Activity	Decreased a lot		Increased a lot		
1. External special events (e.g., excursions, camps, inter-school cultural events and sporting carnivals)	0.9	13.4	<b>55.2</b>	<b>26.4</b>	4.2
2. Student withdrawal programs (e.g., Music, ESL, remedial, enrichment or accelerated programs)	3.1	11.5	<b>29.1</b>	<b>46.7</b>	9.7
3. Student discipline and welfare	1.1	6.2	<b>33.0</b>	<b>35.2</b>	<b>24.4</b>
4. Internal special events (e.g., assemblies, fund-raising, whole-school cultural and sporting activities)	0.7	9.7	<b>59.1</b>	<b>26.4</b>	4.2
5. Within-school administrative activities (such as: collection of monies, public address announcements, delivery of messages to classrooms, organisation of teaching resources)	2.6	9.9	<b>38.2</b>	<b>32.5</b>	<b>16.7</b>
6. Parent participation (e.g., parents reading to and/or listening to children read; direct assistance in the classroom; making teaching aids, etc.)	1.1	10.0	<b>36.9</b>	<b>39.6</b>	12.4
7. Parent communication (e.g., Parent-teacher consultations; Parent information/education programs)	0.0	1.5	<b>25.0</b>	<b>53.7</b>	<b>19.7</b>
8. School governance (e.g., Teacher and staff meetings; School Board/Council/parent bodies meetings; curriculum committees)	0.2	1.8	<b>27.4</b>	<b>42.3</b>	<b>28.3</b>
9. Curriculum development/implementation activities for teachers that are organised centrally by state and/or regional bodies	5.1	9.5	<b>22.5</b>	<b>36.8</b>	<b>26.2</b>
10. Establishing and maintaining links with other schools, such as curriculum networks, sharing resources/expertise, etc.	3.3	16.0	<b>36.0</b>	<b>36.3</b>	8.4

Table 10 indicates that principals generally perceive an increase in the amount of time devoted to all areas. In particular, there is a widespread perception among schools that the amount of time devoted to activities such as parent communication, school governance, curriculum development/implementation, and student discipline and welfare, have increased substantially over the past three years. It must be assumed that these pressures can only reinforce the perception of an ‘overcrowded’ curriculum.

## 10 Impact of changes in curriculum emphasis on students

Table 12 summarises patterns of responses to a set of seven items relating to the impact on students of recent changes in curriculum. There are mixed perceptions about whether recent changes have improved the quality of education for most students, but a clear tendency to see low achieving students as benefiting the most. Principals tend not to see great changes in the amount of progress being made by students in literacy and numeracy although a significant proportion see students as making greater rather than less progress, particularly in the first three years of the primary school and particularly in literacy. 62.2% of principals agreed or strongly agreed with the statement “Students have been making greater progress in literacy during the first 3 years of their schooling”.

**Table 12. Percentage Estimates in 5 Categories for Situation Applying During the Previous Three Years (1996-1998): Items Relating to Impact on Students**

7. Recent changes in the curriculum <b>have not improved</b> the quality of education for most students	7.0	20.7	<b>31.7</b>	<b>33.5</b>	7.0	Recent changes in the curriculum <b>have improved</b> the quality of education for most students
32. Low achieving students have <b>benefited least</b> from changes to the curriculum	3.6	9.6	<b>33.3</b>	<b>41.3</b>	12.3	Low achieving students have <b>benefited most</b> from changes to the curriculum
23. High achieving students have <b>benefited least</b> from changes to the curriculum	8.6	17.7	<b>52.2</b>	18.1	3.3	High achieving students have <b>benefited most</b> from changes to the curriculum
11. Students <b>have not</b> been making greater progress in <b>literacy</b> during the <b>first 3 years</b> of their schooling	2.0	7.3	<b>28.5</b>	<b>48.1</b>	14.1	Students <b>have been</b> making greater progress in <b>literacy</b> during the <b>first 3 years</b> of their schooling
21. Students have been making <b>greater progress</b> in <b>literacy</b> during the <b>final 3 years</b> of their primary schooling	5.4	<b>32.6</b>	<b>50.6</b>	10.1	1.3	Students have been making <b>less progress</b> in <b>literacy</b> during the <b>final 3 years</b> of their primary schooling
26. Students have been making <b>greater progress</b> in <b>numeracy</b> during the <b>first 3 years</b> of their primary schooling	5.1	<b>30.5</b>	<b>60.1</b>	3.8	0.4	Students have been making <b>less progress</b> in <b>numeracy</b> during the <b>first 3 years</b> of their primary schooling
38. Students have been making <b>less progress</b> in <b>numeracy</b> during the <b>final 3 years</b> of their primary schooling	0.7	8.1	<b>68.2</b>	<b>21.2</b>	1.8	Students have been making <b>greater progress</b> in <b>numeracy</b> during the <b>final 3 years</b> of their primary schooling

## 11 Impact of changes in curriculum emphasis on teachers

Table 13 summarises responses to a set of three items relating to the impact of recent changes in curriculum on teachers. Principals believed that over a half of all teachers have experienced difficulties in adapting to recent changes in the curriculum. On the other hand, just less than half thought that they have become more confident about ensuring success for students in literacy. This is consistent with responses to items summarised in Table 12 relating to the impact of changes in the curriculum on student progress in literacy. Once again, responses relating to the impact of change on teachers reflect a less positive for numeracy than for literacy.

**Table 13. Percentage Estimates in 5 Categories for Situation Applying During the Previous Three Years (1996-1998): Items Relating to Impact on Teachers**

6. Classroom teachers have experienced <b>difficulties in adapting</b> to recent changes in the curriculum	18.4	<b>38.9</b>	15.1	19.7	7.9	Classroom teachers have <b>adapted well</b> to recent changes in the curriculum
27. Teachers have become <b>less confident</b> about ensuring success for all students in <b>literacy</b>	3.3	16.3	<b>31.5</b>	<b>42.5</b>	6.4	Teachers have become <b>more confident</b> about ensuring success for all students in <b>literacy</b>
17. Teachers have become <b>more confident</b> about ensuring success for all students in <b>numeracy</b>	4.0	<b>26.6</b>	<b>51.2</b>	15.6	2.6	Teachers have become <b>less confident</b> about ensuring success for all students in <b>numeracy</b>

## 12 Resources and support for literacy and numeracy

Tables 14.1 and 14.2 summarise responses to a set of items relating to perceived changes in the amount of financial and professional support for the teaching of literacy and numeracy in primary schools.

**Table 14.1 Percentage Estimates in 5 Categories for Situation Applying During the Previous Three Years (1996-1998): Items Relating to Resources and Support for Literacy**

20. There is <b>more financial support</b> to assist schools in achieving high <b>literacy</b> outcomes for students	9.5	<b>30.8</b>	<b>25.1</b>	18.7	15.9	There is <b>less financial support</b> to assist schools in achieving high <b>literacy</b> outcomes for students
15. <b>Less resources</b> have been made available to provide <b>literacy</b> interventions for ‘at risk’ students	11.4	10.8	14.1	<b>38.2</b>	<b>25.5</b>	<b>More resources</b> have been made available to provide <b>literacy</b> interventions for ‘at risk’ students
22. There is <b>less professional support</b> to assist schools in achieving high <b>literacy</b> outcomes for students	9.9	17.9	<b>21.6</b>	<b>40.8</b>	9.7	There is <b>more professional support</b> to assist schools in achieving high <b>literacy</b> outcomes for students
19. Teachers have <b>less access</b> to professional development focused on the teaching of <b>literacy</b> relevant to the <b>first 3 years</b> of schooling	6.0	10.8	15.2	<b>43.3</b>	<b>24.7</b>	Teachers have <b>more access</b> to professional development focused on the teaching of <b>literacy</b> relevant to the <b>first 3 years</b> of schooling
29. Teachers have <b>more access</b> to professional development focused on the teaching of <b>literacy</b> relevant to the <b>final 3 years</b> of primary schooling	7.2	<b>34.5</b>	<b>30.2</b>	21.2	7.0	Teachers have <b>less access</b> to professional development focused on the teaching of <b>literacy</b> relevant to the <b>final 3 years</b> of primary schooling

It is evident that there are quite varied perceptions among principals regarding the level of financial support for literacy. While almost 16% strongly agree with the statement that there is less financial support for the teaching of literacy, almost 31% agree with the statement indicating more financial support for literacy. This variation could reflect a variety of factors, including external changes in funding arrangements and between-system differences in funding policies and within-school decisions regarding the allocation of available funds.

Significantly, almost 64% of principals agreed or strongly agreed with the statement “More resources have been made available to provide literacy interventions for ‘at risk’ students”. This is consistent with responses indicating that low achieving students had benefited most from recent changes in the curriculum. It is assumed that these responses reflect the increased support in recent years by several systems for early intervention programs such as Reading Recovery.

What is quite clear from Table 14.1 is the widespread perception among principals that there is more professional support available to assist schools in achieving high literacy outcomes for students and greater access to professional development related to literacy, particularly for teachers of students in the first three years of schooling. In particular, 68% of principals agreed or strongly agreed with the statement “Teachers have more access to professional development focused on the teaching of literacy relevant to the first 3 years of schooling”. It is assumed that these responses reflect the attention being given by systems and schools to programs such as W.A.’s *First Steps* and Victoria’s *Keys To Life* programs.

Table 14.2 summarises responses to parallel items relating to numeracy.

**Table 14.2 Percentage Estimates in 5 Categories for Situation Applying During the Previous Three Years (1996-1998): Items Relating to Resources and Support for Numeracy**

35. There is <b>less financial support</b> to assist schools in achieving high <b>numeracy</b> outcomes for students	21.4	<b>27.4</b>	<b>38.6</b>	11.5	1.1	There is <b>more financial support</b> to assist schools in achieving high <b>numeracy</b> outcomes for students
36. There is <b>more professional support</b> to assist schools in achieving high <b>numeracy</b> outcomes for students	2.0	15.2	<b>42.2</b>	<b>27.2</b>	13.5	There is <b>less professional support</b> to assist schools in achieving high <b>numeracy</b> outcomes for students
14. Teachers have <b>more access</b> to professional development focused on the teaching of <b>numeracy</b> relevant to the <b>first 3 years</b> of schooling	6.4	22.5	<b>35.9</b>	<b>23.3</b>	11.9	Teachers have <b>less access</b> to professional development focused on the teaching of <b>numeracy</b> relevant to the <b>first 3 years</b> of schooling
24. Teachers have <b>less access</b> to professional development focused on the teaching of <b>numeracy</b> relevant to the <b>final 3 years</b> of primary schooling	13.7	<b>34.9</b>	<b>35.8</b>	13.5	2.0	Teachers have <b>more access</b> to professional development focused on the teaching of <b>numeracy</b> relevant to the <b>final 3 years</b> of primary schooling

Significantly, just under a half of principals agreed or strongly agreed that there was less financial support to assist schools in achieving high standards of numeracy. There was also a tendency to see professional support for schools and access by teachers to professional development as being less available for numeracy. This suggests that numeracy has not been a major priority over the past three years in terms of providing professional and financial support, despite the increased emphasis being placed on mathematics within the curriculum.

## 13 Variations among States and Territories

Table 15 summarises mean ratings on a scale of 1-5 on selected clusters of related items for each of the eight States and Territories. High scores reflect more rather than less, increase rather than decrease for each of the items. Care needs to be taken to avoid reading too much into these results. In particular, the small number of responses from schools in the ACT, Northern Territory and Tasmania mean that the results from these States and Territories may not be entirely representative of the populations from which they were drawn. As a guide to the interpretation of differences, high values are in bold and the probability that the differences among States/Territories were due to chance is indicated in the final column headed '*p*'.

Mean ratings on the first cluster of items indicate no significant differences among States/Territories in perceptions regarding the broadening of the curriculum.

In terms of the priority and emphasis on literacy and numeracy, differences are significant, with principals in Victoria, New South Wales and Queensland perceiving the highest priority and emphasis on literacy and Queensland and Tasmania principals perceiving the highest priority and emphasis on numeracy.

Principals in Tasmania, the ACT and Victoria gave highest ratings to items relating to the clarity and coherence of the curriculum, while principals in Western Australia perceived themselves as having the greatest amount of freedom to determine the content of the curriculum and the amount of time allocated to different areas of the curriculum.

There were no significant differences among States/Territories in principals' perceptions of changes in the amount of progress students have been making in literacy and numeracy.

With respect to change in teacher access to professional development, the highest ratings were from principals in Western Australia, South Australia and Victoria, whereas for increased financial support, the highest ratings were from principals in South Australia and Queensland.

The cluster of items with the highest ratings was cluster 2, namely those items relating to an increased priority and emphasis being given to literacy and numeracy. The cluster of items with the lowest ratings was cluster 7, namely items relating to teacher access and support for professional development.

Western Australian and Victorian principals responded with the highest ratings overall across the eight clusters of items, while principals in the Northern Territory and New South Wales responded with the lowest overall ratings.

**Table 15. Mean Estimates of 10 Situation in Your School Factors, by State/Territory**

<i>School Situation Factor</i>	ACT	NSW	NT	QLD	SA	TAS	VIC	WA	<i>p</i>
1. Broadening of the curriculum (items 4, 9, 1)	4.0	3.8	3.8	3.6	3.7	3.3	3.8	3.9	.19
2. Priority & emphasis on Literacy (items 13, 31, 34, 2, 12)	3.9	<b>4.2</b>	3.8	4.0	<b>4.2</b>	4.0	<b>4.3</b>	3.9	<b>.001</b>
3. Priority & emphasis on Numeracy (items 39, 28, 37, 30)	3.2	3.3	3.3	<b>3.6</b>	3.4	<b>3.5</b>	3.3	3.4	.07
4. Clarity and coherence of the curriculum (items 8, 10, 7, 18, 16)	<b>3.3</b>	3.0	2.6	3.1	3.1	<b>3.6</b>	<b>3.3</b>	3.2	<b>.002</b>
5. Freedom to determine content of curriculum & time allocation (items 33, 5)	3.2	3.0	2.9	3.4	3.0	2.8	3.0	<b>3.8</b>	<b>.001</b>
6. Student progress in literacy & numeracy (items 38, 26, 21, 17, 11, 27)	3.2	3.3	3.2	3.3	3.4	3.3	3.3	3.1	.60
7. Teacher access to & support for P.D. (items 29, 24, 36, 22, 19, 14)	2.8	2.7	3.0	2.9	<b>3.1</b>	2.9	<b>3.1</b>	<b>3.2</b>	<b>.01</b>
8. Resources and finance (items 20, 15, 35)	2.9	2.6	2.7	<b>3.5</b>	<b>3.6</b>	3.1	2.9	3.0	<b>.001</b>

## 14 Modelling schools' responses

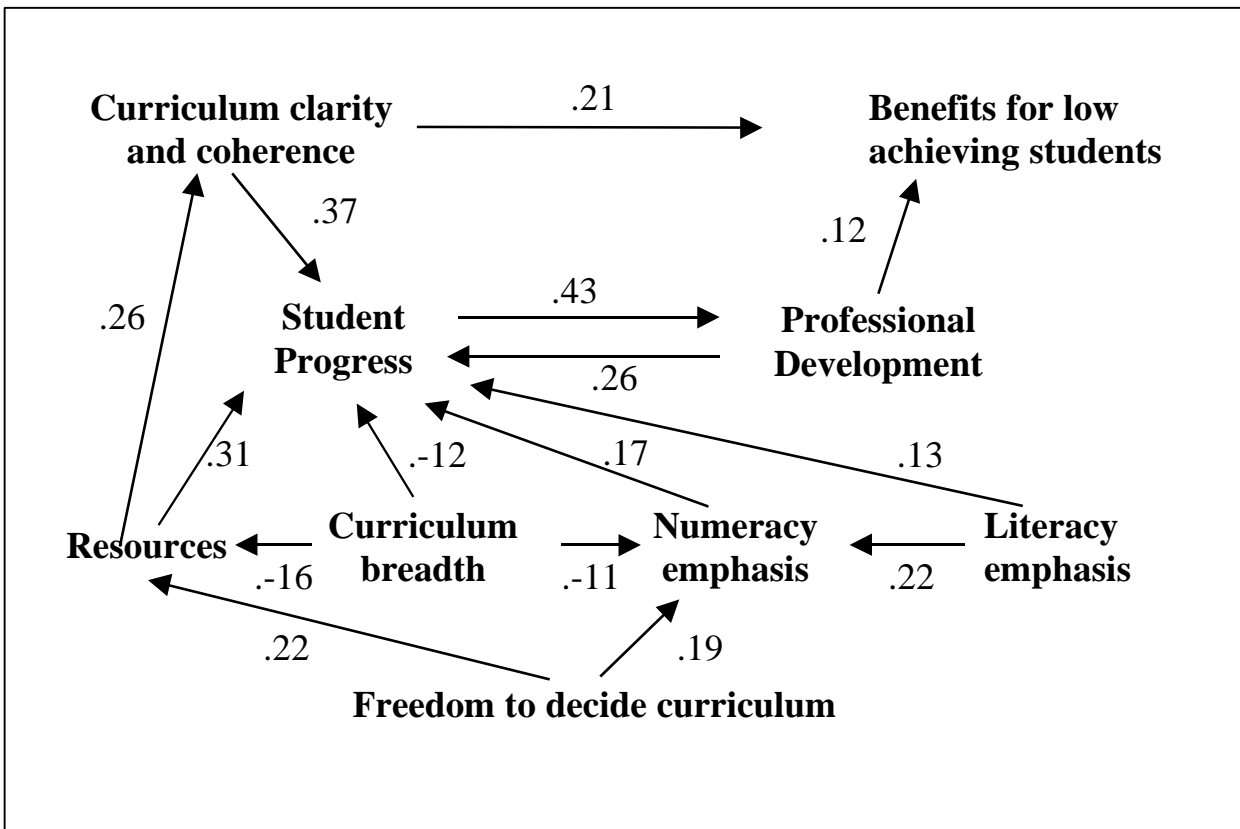
To gain a better understanding of the relationships among each of the clusters of items, composite scores were calculated for each cluster, using a one-factor congeneric measures model, and a recursive structural equation model was fitted to these scores. The results are summarised in the path diagram of Figure 2. The numbers indicate the strength of each path and are standardised coefficients. They indicate the proportion of a standard deviation change that a given measure changes as a result of a one standard deviation change in another measure, with arrows indicating the direction of the change. There is a 95% chance that each path is significant (i.e., is not due to chance) and the resultant model provided excellent fit to the data.<sup>7</sup>

According to this model, student progress is positively influenced by the clarity and coherence of the curriculum, by the availability of extra resources, by increased access to professional development and by an increased emphasis on literacy and numeracy. Broadening of the curriculum has a negative influence on student progress. On the other hand, in schools where students are making greater progress, teachers are encouraged to undertake more professional development related to literacy and numeracy. Clarity and coherence of the curriculum and access to professional development are associated with benefits for the rate of learning among low achieving

<sup>7</sup> The following goodness-of-fit indices were obtained:  $\chi^2(26) = 14.06$ ,  $p = 0.972$ , RMSEA = 0.000, SRMR = 0.003, GFI = 0.991.

students, while clarity and coherence of the curriculum is in turn influenced by the provision of additional resources.

An emphasis on numeracy is more evident in schools where there is an emphasis on literacy and in schools that perceive they have increased freedom to determine the content of the curriculum and the time devoted to different curriculum areas. Broadening of the curriculum is associated with a negative influence on resources and with a lesser emphasis on numeracy, while additional resources for literacy and numeracy are associated with greater freedom to determine the content of the curriculum and the time devoted to different curriculum areas.



**Figure 2. Standardised solution to recursive, structural equation model showing direct effects among clusters of items**

Note: All recorded path coefficients were significant beyond the  $p < 0.05$  level, by univariate two-tailed tests

While each of the relationships in the model have face validity in the sense that they appear reasonable and are readily interpretable, it must be remembered that they relate to the perceptions of principals rather than to objective measures of such things as student progress and provision of resources. Nonetheless, the modelling of responses does draw attention to the perceived positive impact on student progress of such things as clarity and coherence of the curriculum, the availability of extra resources, increased access to professional development and an increased emphasis on literacy and numeracy and of the negative impact of a broadening of the curriculum.

## 15 Changes affecting the teaching of literacy

Respondents to the survey were presented with three open-ended questions, the first of which asked them to write about the two most important recent changes affecting the teaching of literacy in their particular school. Of the 459 principals who responded to the questionnaire, the overwhelming majority responded to the question and only 26 from a possible 918 ( $459 \times 2$ ) responses were left blank. However, individual responses often contained more than one idea and analysis of the responses resulted in 1037 major ideas concerning change to be considered.

1% of responses indicated that there had been 'no change' since literacy had already been given considerable emphasis in the school in response to mandates from systems to improve literacy. 87% of responses, however, indicated generally positive changes. The two most common reported changes by far were recently implemented curriculum initiatives and the introduction of new literacy programs.

**Curriculum initiatives** (16% of responses). Many respondents referred to changes to literacy in schools brought about by external (usually State) curriculum initiatives. Examples of comments included:

*"Change has come about through the introduction of an excellent new English syllabus with support materials for staff training and development."* (NSW, 958)

*"An outcomes-based curriculum has meant that teachers have greater direction and therefore greater purpose than previously. Teachers now have the ability to track the progress of individual students."* (NSW 1072)

*"The diagnostic continua mapping processes have ensured that teachers know students' achievements much better, and therefore, plan and teach accordingly."* (QLD, 330)

*"Statements and Profiles have clarified certain areas of English, giving more focus (SA, 390) and have provided a framework in which to operate."* (SA, 393)

As a result it was often reported that expectations had become more explicit:

*"There are now clear guidelines on what is taught, how it is to be taught and when it is to be taught (QLD, 280) Teachers are now able to structure lessons based on sequential, explicit guidelines. (NSW, 977) It is a more prescriptive and user-friendly curriculum (NSW, 1037) with a clear set of expectations for each stage of development (NSW, 835) and greater clarity about student learning outcomes."* (SA. 442)

**Introduction of new literacy programs** (15% of responses). A significant number of schools have introduced new literacy programs in recent years. The most consistently mentioned programs were:

- Keys to Life (particularly Victoria)
- First Steps Program (particularly Victoria and WA)
- Reading Recovery

Other programs mentioned included:

- Early Literacy Flying Start Program (particularly Tasmania)
- DSP Programs
- Children's Literacy Success Strategy (CLaSS) (Catholic primary schools in Victoria)
- Letterland (phonics program)
- Guided Reading Program
- School-based English programs (e.g. STAR)
- Macquarie Reading Tutor Program
- Support-a-Reader, Support-a Writer (especially Queensland)
- Teaching Handwriting, Reading and Spelling (THRASS) (particularly SA)
- Home reading programs
- Early intervention programs

In terms of the percentage of responses, the next most important grouping was concerned with new teaching and organisational strategies.

***New teaching and organisational strategies*** (10% of responses). A large group of respondents said they had changed their approach to the teaching of literacy or implemented new organisational strategies within their schools. Changed teaching strategies (3%) included: collaborative learning strategies; team teaching; strategies to increase explicit and systematic teaching (e.g., a greater focus on a sequential approach to reading, writing, spelling and oral language); going back to basic literacy skills including, phonics, spelling, grammar and punctuation; teaching different genres in creative writing; usage of modern forms of spelling and recognition of Aboriginal English; ensuring activities are relevant and contain skills students will need; incorporation of thinking skills; a focus on individualised learning; literature based learning; students attending voluntarily; a move to a more integrated, real text focus, and; using different text types in the teaching of reading.

New approaches also included the use of technology (1%) as exemplified by the following comments:

*"The technology has resulted in a change of focus on literacy (WA, 138)...it has broadened our teaching base (VIC, 739) through computer access and suitable software packages "* (VIC, 821)

An example of organisational change was the reorganisation of the timetable in favour of literacy (3%). The most common way to do this was through a two-hour dedicated literacy teaching block across the whole junior school (particularly in Victoria):

*"The adoption of Keys to Life strategies included the timetabling of uninterrupted time for the first two hours each day for literacy P-2."* (VIC, 625)

Another example of organisational change was a greater integration of literacy into all other subjects (1%).

***Increased professional development and training*** (9% of responses). It was evident from a large number of responses that schools had been provided access to more professional development in connection with the introduction of the curriculum initiatives and literacy programs listed above. The following comments illustrate this trend:

*"We are currently training a Reading Recovery teacher at our school (VIC, 657)...There has been the training of a Keys to Life Co-ordinator (VIC, 690)...and we have had training in the First Steps Program that focused teachers' attention more on literacy. (ACT, 2) With these new programs much more professional support is available."* (VIC, 745)

*"With the implementation of the new English syllabus, there was mandatory in-servicing of teachers to accompany its implementation."* (QLD, 363)

*"There has been a push by the Department to emphasise literacy both with documentation and T & D. It is very high profile and teachers are left in no doubt where the priorities lie. The extra T & D has helped to emphasise this approach and has made it easier to implement."* (NSW, 945)

*"There was increased professional development around the new documents and the chance, therefore, for teachers to share good practice."* (NSW, 1170)

*"We had school-based professional development to support our whole-school literacy intervention."* (VIC, 739)

*"There has been a growth in staff professionalism. Various teaching staff have upgraded their formal teaching qualifications in the past three years, thereby having access to the latest thinking and research about literacy and the teaching of literacy to NESB students."* (NSW, 1187)

*"We have had improved T & D programs focusing on assessing, reporting, guided reading and phonetic awareness. We have also had huge progress in improving staff members' computer skills, leading to better teaching and learning experiences."* (NSW, 1047)

*"PD has been run by the school and occurred from attendance at Network Meetings. These have improved approaches to literacy teaching."* (VIC, 599)

Responses also referred to increased:

*"Funding to enable teachers to undertake PD and the availability of teacher release time." (SA, 1307)*

**The appointment of specialist/support teachers** (7% of comments). Schools reported that they had been able to acquire a range of additional staff. For example, they said that there had been changes in literacy due to the appointment of staff who were:

- competent and enthusiastic co-ordinators;
- co-ordinators who can co-ordinate testing;
- specialists in learning difficulties;
- Keys to Life co-ordinators;
- specialist Reading Recovery teachers;
- part-time teachers to help in P-2 classes;
- student support officers;
- literacy officers;
- teacher librarians/reading specialists;
- extra support teachers;
- school curriculum officers to work on literacy programs;
- teacher aides for one-on-one work;
- key literacy teachers to run PD; and
- ESL teachers.

Furthermore, some schools are bringing specialist advisers and consultants in to act as change agents. As a result of such staffing activity, one person was moved to say that:

*"The support for the teaching of literacy has been the best I've seen in nearly 30 years of teaching." (NSW, 968)*

**Increased resources available for literacy** (6% of comments). Respondents noted that Governments (both Federal and State) and schools themselves are providing more resources for literacy. Specific mention was made of:

- improved access to, and quality of, curriculum materials;
- extra resources for professional development;
- money to acquire staff;
- DSP grants for teacher employment;
- capacity to buy in consultants;
- funding for teachers to work within intervention programs;
- payment of literacy co-ordinators, and;
- funding to implement new programs.

Commitment to such changes in resources for literacy was evident in the following comments:

*"The school made a decision to put approximately \$100,000 of its own funds into literacy development over the past three years." (VIC, 380)*

*"Federal funding of support programs has allowed for increased training of staff and further support of students." (NSW, 1204)*

*"A change has been more funding e.g. BST and Early Literacy Grants. We spend every cent on extra staffing to support literacy skill development in targeted students." (SA, 102)*

In addition, there were also comments that, in association with increased funds, schools now had more flexibility re financial expenditure so that there was now *"more flexible funding in the literacy area." (NSW, 921)*

**Increased attention to matching teaching to the needs of students** (6% of comments).

Another group of responses indicated that one of the most important changes relating to literacy in schools has been the identification of instructional levels and grouping students accordingly for instruction i.e. *"being able to meet the individual needs of students within the classroom."* (WA, 79):

*"We have lowered class sizes to provide more support for able boys particularly."* (NSW, 1185)

*"With the advent of the Diagnostic Net and Yr 6 Test as a means of identifying 'at risk' students, we then resource programs to support them."* (QLD, 327)

*"A literacy intervention program is assisting the large numbers of 'at risk' students."* (VIC, 706)

*"The removal of standard texts in each class is allowing teachers more freedom to select material suited to the needs of their particular class of children."* (TAS, 529)

As a strategy to enable more support for individual differences several respondents (1%) said that their schools had *"increased staffing in order to lower class size to provide more support (NSW, 1185) and more individual or small group attention."* (SA, 449)

**Increased monitoring and testing** (5% of comments). In conjunction with new curriculum initiatives, the introduction of new programs and the commitment to matching needs, there was an associated reported change in the degree of monitoring and testing:

*"There is a requirement for more systematic accountability being applied by Government at state and federal levels."* (TAS, 511) *..and a necessity to use the developmental continua to track children's growth and development in literacy".* (QLD, 322)

*"We now utilise standardised tests, teacher observations, LAP tests, University competitions and skills lists, based on CSF criteria."* (VIC, 1308)

so that:

*"The assessment process is now seen as part of the teaching/learning cycle whereas in the past it was a separate entity."* (NSW, 979) *...and more use is being made of students' achievement information to bench mark and map learning."* (SA, 409) *..and this has identified which children need help in which areas."* (WA, 135)

Furthermore, respondents mentioned both increased system (i.e., external) initiated testing (including benchmarking) and also internal audits, reviews and other internal school literacy screening processes.

**Development of a whole-school plan/policy** (4% of comments) One change that many schools had made in relation to literacy was to incorporate statements about a stronger literacy priority into school policy and planning documents (3%). Typical comments included:

*"We have English as a Charter priority for 1997-1999."* (VIC, 657)

*"Areas of literacy have been tested and as a result, specific areas have been targeted in the school development plan e.g. oral English, handwriting"* (WA, 103)

*"We developed a school plan and commitment aimed at improving literacy."* (SA, 453)

Such plans often meant there was also a change to a whole-school approach (1%):

*"We are developing a whole-school policy based on the new NSW K-6 English document but tailored to suit 'our' situation."* (NSW, 1185)

*"There is a more unified whole-school approach to the understanding and teaching of literacy."* (NSW, 1220)

**Better quality teachers and greater teaching commitment** (4% of responses). Another group of respondents felt that there had been positive changes in staffing quality and in how staff work together.

It was reported that schools now possessed: more experienced teachers who had undertaken professional development; more highly skilled teachers whose management strategies lead to improved outcomes for students; more positive teachers who are in favour of change; and more flexibility in staff selection. (1%)

As part of this overall improvement in staffing it was suggested that staff also had a better understanding of matters associated with literacy teaching and learning (1%). For example teachers seemed to have a better understanding of matters such as:

- the need to cater for a wide range of abilities;
- the necessity to improve literacy standards;
- current issues and ideas in literacy;
- how students begin to read;
- the reading-writing process and the interconnection of the two;
- the broad nature of literacy, and;
- literacy assessment and outcomes.

Comments were also made to the effect that staff attitudes had improved so that there was greater teacher commitment (1%) demonstrated by greater input by teachers to maintain standards, and a willingness to undergo training. Furthermore, adjectives such as 'enthusiastic', 'dedicated' and 'devoted' were applied to staff involved in literacy teaching. A manifestation of this commitment was often greater staff collaboration (2%). Typical comments included:

*"A change has been the formation of a strong literacy team with members with interest and expertise across the stages of development. The motivation for the staff is provided by the enthusiasm of the team."* (NSW, 1081)

*"Training key players in a school who then work with their colleagues is a very successful way of getting professional development implemented."* (VIC, 712)

*"There are concerted attempts to have teachers plan and work together on programmes and year level overviews so there are staff structures to ensure teachers behave more co-operatively."* (QLD, 379)

*"We now have collaborative planning time for teachers to reflect on, and plan, literacy programs."* (SA, 486)

**Increased parental involvement** (2% of comments). A number of respondents also said there had been a change in:

*"Parent participation, education, communication and involvement so that there is parent awareness and understanding of the strategies we use for teaching and learning."* (VIC, 696)

Parents were often actively involved in school programs as tutors at schools as well as supplementing school activity at home and this resulted in positive changes:

*"Having parent helpers who have been trained via Keys to Life has been invaluable and their input has made a great difference in the smooth running of the program."* (VIC, 800)

*"We have a home reading scheme from K-2 and with this daily reading there have been tremendous improvements in both ability and self confidence."* (NSW, 1194)

All the recent changes reported so far have been for the better, or at least have been neutral in tone. However, the remaining 12% of comments reported changes for the worse. These included:

***Inadequate resources for literacy*** (5% of responses). While 6% reported an increase in resources for literacy teaching, nearly as many indicated that there were less resources available. Specifically, schools reported a lack of or reduced funding for:

- appropriate staff training and development;
- special needs assistance;
- intervention support;
- special programs (such as withdrawal of funds for Reading Recovery);
- buying books and other materials;
- maintaining current staff loads, and;
- employing extra staff.

A reduction of staff also led to larger class sizes and therefore to an increased pupil-teacher ratio. In turn, responses indicated that this has resulted in a general lack of support and remedial assistance for some schools.

***Increased pressure to change*** (3% of responses). Some respondents felt negatively about imposed change by systems. There were complaints about the: protracted process of syllabus change in NSW; change of curriculum brought about by the Curriculum and Standards Framework (CSF) in Victoria; unrealistic expectations concerning outcomes; confusing documents and increased paperwork; guidelines being too rigid; compulsion to keep constant records of children's progress; lack of professional development and staffing support to implement system changes; and increased stress in implementing change.

***Overcrowded curriculum*** (1% of responses). Some respondents also referred to changes brought about by an overcrowded curriculum which takes time away from core literacy initiatives:

*"The teaching of literacy at our school has been hugely affected by the extra demands placed upon teachers to fit in and schedule 'extras' e.g. community sports, competitions, arts etc. and the problem of each curriculum area stressing its own importance."* (QLD, 339)

***Miscellaneous other negative changes*** (3% of responses). Finally, there was a range of other changes which were felt to impinge negatively on the teaching of literacy. These included: negative media coverage; changes in school characteristics such as more NESB students, more children entering with low literacy levels and more dysfunctional families; multi-age classrooms; mainstreaming of children with severe disabilities; and poor teacher training.

## **16** Changes affecting the teaching of numeracy

Respondents to the survey were also asked to nominate two major changes that had affected the teaching of numeracy in their school. This meant a possibility of 918 responses (459 × 2). However, 51 comment spaces were left blank and furthermore, there were 4% of schools responded to the survey, across the country saying:

*"This question is not really applicable as we haven't had any innovative changes of late (SA, 422)..numeracy has remained stable "* (NSW, 1070)

This meant that eventually there were only about 800 items of change provided for analysis. However, in comparison with literacy the picture of change was more diverse. In order of frequency, changes involved:

**New teaching strategies including the use of new resources** (22% of responses). 8% of respondents said that major changes in the teaching of numeracy had occurred through the introduction of new teaching strategies and organisational modes including:

- stage-based teaching;
- the introduction of Curriculum and Standards Framework module-based teaching (Victoria);
- working with small groups of like ability;
- more individualised teaching;
- co-operative work situations;
- developmental and experimental numeracy play for P-2;
- using problem-solving games to stimulate interest;
- using mathematical concepts rather than arithmetic;
- activity-based teaching;
- integrating maths into other areas of the curriculum;
- broadening the maths curriculum to accommodate topics such as chance, data management, space, measurement;
- the encouragement of lateral, creative and critical thinking;
- a change from content orientation to skills/processes;
- more on the language of mathematics than on the mechanics of numeracy;
- uninterrupted teaching blocks for numeracy;
- compulsory dedicated time to numeracy;
- co-ordinated timetables to enable all classes to be doing maths at the same time;
- "Maths Fun Days";
- alternative assessment options, and;
- the involvement and assistance of parents.

There was also a number (2%) of responses that emphasised that maths had altered to be relevant and real to children:

*"A change has been a realisation by teachers that numeracy is best not taught as a separate maths subject but that skills, processes and understanding can be explored in a more meaningful and context-based way."* (SA, 413)

*"We now make Maths real using a problem solving approach to broaden thinking skills and understanding by putting Maths in a real world context."* (TAS, 1301)

In order to achieve this there has been a move to use a:

*"More hands-on approach with use of concrete materials in all areas of Mathematics"* (NSW, 878) (4%) *"because we are teaching for understanding with the maximum use of such materials."* (VIC, 806)

This has been assisted by:

*"the publication of more suitable resource materials to assist with hands-on learning* (QLD, 378) *and "funds to purchase hands-on materials"* (NSW, 836)

The use of new textbooks and other written materials was mentioned by another 2% of respondents. Particular texts mentioned were KINOS publications, books aligned to national profiles, 'Signpost Maths', 'Maths Plus' and Maths Links.

In addition, new strategies have often meant an increased use of technology (2%):

*"There has been an increase in the number of computers and software programs aimed at numeracy skills ."* (VIC, 563)

*"With the concentrated introduction of learning technologies, the computer as a tool for learning has really inspired students, particularly the underachievers."* (VIC, 696)

**Curriculum initiatives** (13% of responses). As with literacy, a major catalyst of change was the introduction of new State/Territory curriculum initiatives. In particular, mention was made of:

- *The Victorian Curriculum Standards Framework (CSF) (5%) where "sequential coverage with set goals (VIC, 742) planned after course advice and the study of the CSF documents" (VIC, 766) have been implemented.*
- *The Year 2 Diagnostic Net Continuum and Year 6 test in Queensland (4%) "where feedback and analysis result in catering for students in groups or individually who show weaknesses on any indicators of the continuum." (QLD, 332)*
- *The introduction of the Outcomes Based Maths K-6 Document in New South Wales (3%).*

As a result, 1% of respondents said that such initiatives provided clearer guidelines and direction for teachers and also that a stronger curriculum had emerged (1%), particularly in NSW.

*"There is now a very clear, comprehensive, sequential maths syllabus (NSW, 878)..that is user friendly (NSW, 886) and has good structure." (NSW, 959)*

**Increased monitoring and testing** (9% of responses). In conjunction with external initiatives, there was also a reported change in the amount of numeracy testing within primary schools. This was particularly evident in NSW where the syllabus is outcomes-based (4%) and therefore requires *"much more assessment and reporting"* (NSW, 1068) However, responses from other States/Territories also mentioned increased *"outcomes profiling."* (NT, 40), *outcomes-based assessment* (WA, 159) and *"adoption of student outcome statements."* (WA, 79).

Respondents from Queensland also referred to external testing in association with the advent of the Year 2 Diagnostic Net and Year 6 test (2%), while those in Victoria mentioned the close monitoring of student performance in relation to the Learning Assessment Project (LAP) testing at Grades 3 and 5. Finally principals from the Northern Territory and South Australia talked of :

*"The change to regular statements and profiles" (SA, 417) "which have provided teachers with good indicators on the progress of individual students." (NT, 25) (2%)*

Another small group (1%) also indicated a growth in internal testing. For example:

*"Having a focus on numeracy as a school priority has to led to whole school testing to provided baseline data." (WA)*

*"Our school has instigated a numeracy test on school entry and regular assessments from then on." (VIC, 809)*

**More resources available for numeracy** (9% of responses). Many comments referred to increased resources having become available for numeracy, including:

- *Funding* to assist with testing; for particular programs; for extra staff; for teacher development, and for materials
- *Time* in the form of more time in the school day for numeracy activities;
- *Equipment* including funding for applied maths equipment, purchase of concrete materials; acquisition of appropriate resources to complement a new syllabus; purchase of up-to-date materials, and; provision of hands-on equipment for whole classes.

**Development of school plans/policies for numeracy** (9% of responses). Many schools had considered numeracy in the development of school policy documents. In Victoria there was a particular emphasis on the inclusion of numeracy in school charters:

*"Numeracy was a priority in our first school charter. A lot of work has been done over the last three years in implementing all aspects of this priority." (VIC, 712)*

However, other systems also showed increased planning:

*"We now have a numeracy outcomes focus in school planning documents." (QLD, 229)*

*"We are working with the Project Officer Early Childhood on strengthening the Early Years Document." (NT, 31)*

*"There is ongoing monitoring of the school's numeracy policy." (TAS, 513)*

To inform policy-making and planned change some schools have undertaken evaluations or reviews (2%):

*"An internal evaluation of the teaching of mathematics revealed a number of inadequacies which needed to be addressed." (NSW, 1013)*

*"In recognition that we have a significant pool of able students in numeracy led us to review our maths programs and philosophy towards numeracy education." (VIC, 818)*

In several instances this had led to a whole-school approach (1%) including school-based mathematics programs, assessment and reporting.

**Increased professional development** (6% of responses). Another frequently reported change was increased professional development in relation to numeracy teaching. As with literacy much of this increased professional development was in response to new State/Territory and school initiatives For example:

*A change was in-servicing of principals and maths reference persons to facilitate the introduction and embracing of the new mathematics syllabus." (NSW, 1155)*

*"There is use of the National Statement and Profiles in Maths plus a system-wide professional development programme to do this." (SA, 490)*

Many responses indicated increased funding has become available to facilitate this increased access to professional development. Funds have been used either for travel or to employ specialists. For instance:

*"Our school is part of a R-2 numeracy network which requires two teachers to travel to six workshops." (SA, 466)*

*"We have a three-year plan of in-school in-service run by a private consultant." (NSW, 917)*

*"We had whole school in-service which was based on the services of a professional consultant coming in to work with us." (QLD, 379)*

Specific professional development activities referred to included:

- . new teaching strategies
- . problem-solving
- . KUMON-style maths
- . what is numeracy?
- . learning and learning styles
- . multiple intelligences
- . understanding outcomes data
- . Graduate Diploma in Maths Education

It was also reported that after attendance, staff would frequently: *"share content and good practices across the school." (SA, 448)*

**Increase in experienced, special and support staff** (6% of responses). A group of respondents indicated that change had occurred in numeracy teaching through the appointment and deployment of special staff (3%) such as: specialist maths teachers; key teachers; maths co-ordinators; early intervention numeracy officers; special education teachers to work with the gifted and those with learning difficulties; a Mathematician-in-residence; curriculum officers; mathematics project officers; and education advisers. Several schools had also received extra funding to employ teacher aides (1%) to assist with intervention programs for students at risk.

Another group said that their schools had appointed:

*" More experienced teachers who are well-equipped to teach and who are strong in their desire to see numeracy elevated in the classroom." (WA, 157) (1%)*

or had seen an increase in:

*"Commitment of staff and their collaborative efforts to ensure quality teaching and learning in this KLA."* (NSW, 1155) (1%)

**Increased attention to matching teaching to the needs of students** (4% of responses). In conjunction with increased special staff and increased professional development, responses indicate that it has also been possible for greater matching of teaching to student needs:

*"There has been the introduction of the expectation that class teachers provide learning experiences which match the needs of individual students through the general class program and in work provided for individuals."* (TAS, 531)

*"There is more intervention with small group, split classes to improve numeracy and outcomes of students identified as experiencing difficulty."* (SA, 409)

*"The school policy is to provide for the needs of individuals no matter what level they are achieving. No more 'everyone at a mediocre level.'"* (QLD, 238)

**Introduction of new programs** (3% of responses). Certain respondents also suggested that change had occurred because of the introduction of new numeracy and literacy/numeracy programs. Specific programs cited were:

- Keys to Life strategies (particularly Victoria)
- Flying Start program (particularly Tasmania)
- Shaping the Future
- First Steps
- Count Me In Too (particularly NSW)
- Eureka Maths Program
- Signpost Maths
- Rigby Maths
- Earn and Learn
- AIMS
- Kidmap (a computer-based monitoring and reporting tool)

The remaining 19% of comments referred to changes that were negative in tone. Specifically there were references to:

**Greater competition with literacy** (4% of responses). It was felt by a number of schools that numeracy competed with literacy in terms of both funding and time. For example:

*"The literacy program has taken emphasis and therefore numeracy has been affected in terms of less time on timetables."* (VIC, 757)

*"Our achievable focus is literacy and so all our energy and resources are going on literacy this year."* (SA, 439)

*"The emphasis on literacy has meant an increase in PD in that area. Restricted finances mean less available for PD in numeracy."* (VIC, 662)...*My teachers have been to more in-services than ever but none of it is on numeracy."* (VIC, 548)

*"There has not been the same emphasis by the Department on numeracy as with literacy and teachers note this."* (NSW, 945)

**A more crowded curriculum** (3% of comments). Some respondents complained that numeracy suffered because of demands to accommodate more in the curriculum:

*"The curriculum has expanded enormously without matching resource increase. This possibly means that some fundamental areas such as numeracy are not covered in enough depth."* (VIC, 710)

*"A change has been the number of 'other' areas which impact on teaching time; LOTE, Weeks in Education, NAIDOC. But the time has to come from somewhere"* (QLD, 300)

*"In the crowded day maths seems to be the subject to be abandoned when time is scarce."* (ACT, 3)

**Reverting to old strategies** (2% of responses). A few schools indicated that they had shied away from using new teaching strategies and had reverted to *"back to basics, explicit teaching"* (NSW, 978) such as: improving automatic responses, learning basic concepts, teaching tables, using more organised drill and practice and focusing on basic knowledge. The remainder of comments (11%) included a range of other negative changes, namely;

- lack of/reduction in funding and resources (2%)
- lack of funding for PD (1%)
- lack of support staff (1%)
- reduction in staff/staff cuts (1%)
- teachers who are not confident in maths or maths teaching (1%)
- poor teacher training (1%)
- larger class sizes (particularly in Victoria and Tasmania) (1%)
- concerns about system and other external policies (1%)
- pressure to change and reform rapidly (1%)
- parents who have different expectations regarding programs and assessment from the school (1%)

## **17** Ensuring that priority is given to literacy and numeracy

Finally, respondents were asked to nominate the three most positive actions that could be taken to ensure that literacy and numeracy are given priority within the school curriculum. From the 459 questionnaires received, 453 provided one, two or three items in response, thereby providing over a 1000 separate items to be analysed. However, within each item of reply there were often several embedded ideas and so individual ideas were coded separately resulting in 1322 items for analysis.

While a few people said that they didn't agree with numeracy and literacy being given a priority, or that they felt that they were already a priority, most provided ideas for positive action. In order of importance respondents nominated:

**Increased funding** (20% of responses). While some respondents made general mention of increased and appropriate funding (3%) with comments such as: *"increase support funds from Government as well as the local level and "fund schools equally"*, others designated specific uses for allocated monies, including:

- *Funding for resources* (8%) including physical and human resources such as up-to-date materials for classroom use, computers, readers, library books, teaching guides and staffing;
- *Funding for particular programs* (3%) in order to introduce or extend programs such as : Reading Recovery (mentioned particularly in Victoria) *"which provides individual support for students as well as a resource person in the school to assist teachers"* (SA, 412), Numeracy for All, Keys to Life, THRASS, Maths/Literacy intervention programs.

As one respondent explained:

*"Authority grants for key literacy and numeracy projects have made it financially possible to refocus an emphasis on literacy and numeracy. Ongoing grants would help maintain this emphasis."* (SA, 492)

There was also a call from a small number, particularly in Victoria, to commit funding specifically for numeracy programs (0.5%) as:

*"Pressure recently has been to commit to literacy, quite possibly to the detriment of numeracy. The numeracy profile needs to be higher and this could come about by additional funding to this area."* (VIC, 755)

- *Funding for additional staff* (3%). Funding was said to be required for the: employment or training of more Reading Recovery teachers and other specialists; acquisition of numeracy and literacy experts; purchase of more staff or teacher aides in order to reduce class sizes and to allow more individual/small group work with those at risk/need extension; and for staff replacement of teachers away undertaking professional development.
- *Funding for professional development* (3%). Funding for professional development was requested across States and Territories. It was argued that such money was required for: access to quality training in order to keep teaching up-to-date; travel expenses associated with staff from country schools attending professional development centres or for bringing presenters to rural areas; enabling teachers to visit other schools in order to observe best practice; teacher replacement costs; and training of whole-school communities rather than individual staff. Several respondents also felt that professional development subsidies were needed so that neither schools nor staff were required to pay.

***Professional development and training*** (19% of responses). Increased professional development and training constituted the other most common suggestion for ensuring an emphasis on literacy and numeracy. While 3% specifically mentioned funding arrangements for professional development (discussed above) the majority writing about this category (14%) wrote about professional development more generally, with particular comments pertaining to:

*The organisation of professional development*

- professional development at State, district and local level
- school-based professional development
- whole staff professional development
- team-based/collaborative professional development approaches
- professional development for country and isolated areas
- professional development for teacher aides
- ongoing, regular professional development rather than 'one-off' sessions
- follow-up professional development
- professional development that leads to qualifications
- time-release for professional development
- professional development to be free/cheap
- professional development to take place within school hours
- mentoring and peer coaching

*Professional development content*

- intensive training on new approaches for older teachers
- quality PD programs
- realistic activities
- modelled activities
- how to teach specific skills
- packages on literacy
- sample programs that are brief, user-friendly and manageable
- hands-on strategies
- demonstration of new programs
- newer strategies such as co-operative learning and problem-solving
- strategies to use with NESB students
- visits to/observation of best practice sites
- assistance with assessment strategies
- sharing of experiences.

Another group (2%), across all States and Territories, felt that a positive move to enhance literacy and numeracy in schools would be to involve parents in training and development programs:

*"We need training for parents in the development of concepts and vocabulary" (WA, 79)...so that "through education and information evenings we can involve parents in small groups to support teachers." (VIC, 810)... "They can provide home literacy experiences relevant to their children." (NSW, 917).. "and become confident home tutors" (TAS, 524).. "enabling them to support their children's learning better." (ACT, 12)...and in so doing they "understand their roles and responsibility in achieving literacy/numeracy outcomes for their*

children" (NT, 40)...*"and understand what it is that schools are trying to do."* (VIC, 613). *"Parent professional development is easy to develop and it ensures parents are partners with the school."* (TAS, 524)

**Access to specialist and support staff** (10% of responses). Many respondents expressed the view that an increased focus on numeracy and literacy was impossible without provision, or access to support and specialised staff. There were frequent suggestions for more: support personnel; teacher aides; teacher assistants; student support officers (SA); specialist full-time (rather than part-time) teachers for Reading Recovery and remedial numeracy programs; extra staff for intervention programs and small-group or one-on-one help; teachers interested in developmental learning; shared teaching; staff for remediation and extension; and more staff for DSP schools.

Implicit within this list was a need for extra staff to work with low-achieving students:

*"We need to increase the number of teachers who are able to work on an individual or sometimes small group basis with the 10-20% of students who are the most difficult to teach (ACT, 12) i.e. who are at risk and require extra assistance over the more able."* (QLD, 370)

Besides increased support staff generally, there was also a call for high quality specialist consultants and advisers (2%). These experts are expected to provide training and support so that teachers can learn new skills and can be provided with successful, new strategies:

*"We need relevant, timely, appropriate and very professional, professional development and support. It must be ongoing and not the 'trickle down model'. Education advisers are a must."* (QLD, 300)...*They must be highly skilled in their area of expertise and have a track record in implementing change."* (NSW, 926)

Such advisers were considered particularly necessary in rural areas, and for working with beginning and returning teachers. In addition, there were also suggestions for key specialist literacy and numeracy teachers including staff for school-based co-ordination (1%).

**A less crowded, simpler and integrated curriculum** (9% of responses). There was a plea that if numeracy and literacy are to be given priority, then the number of areas to be covered in an already overcrowded curriculum (discussed earlier in the report) has to be reduced. Here are a range of typical comments on the matter from across the country:

*"We have to have the courage of our convictions and resist the pressure to take on absolutely everything else that someone else deems important."* (NSW, 1110)

*"Remove the enhancement aspects of the school curriculum i.e., swimming, drug education, sex education. Maybe these could become a focus of after-school programs because the school day is so short."* (VIC, 634)

*"Resist the urge or expect the schools to do all the education which the community should be contributing towards. In Tasmania there is even a fresh water angling program being targeted at schools!"* (TAS, 511)

*"Lessen the impact of 'social responsibilities' placed upon schools. The knee-jerk reaction to 'new' problems in society is 'give it to the schools to teach'. This does not mean that something disappears from the curriculum but that an extra is imposed. This in turn impinges on the time available for literacy and numeracy."* (NSW, 933)

In approaching the problem of the 'overcrowded curriculum, there was consistent reference to the need to pursue integration of the curriculum (2%). Ways to focus more on literacy and numeracy without detriment to other subjects were said to exist through integrating these areas into literacy and numeracy instruction. It was pointed out that health and physical education, SOSE, technology, arts and science could all be covered within English and Mathematics *"to create meaningful integrated experiences"* (WA, 161). However, to develop this effectively it was thought to be necessary to:

*"Develop integrated syllabus documents that demonstrate how to cover a number of outcomes from a variety of KLA's through one lesson, unit or theme. (NSW, 1057).. Teachers need long-term support on site to be shown how to do these things."* (VIC, 818)

Additionally, there were requests to have less time devoted to languages other than English (1%):

*"Give schools the option to drop LOTE. It is political propaganda. We need the time to read English literature." (QLD, 379)*

*"Give up on mandatory inclusion of incidental curriculum areas such as LOTE when areas of more relevance suffer." (NSW, 987)*

*"There is an immediate need to review the effect that the LOTE curriculum has had on other KLA's. Many students and their parents do not value this curriculum area and this community attitude is extremely difficult to challenge when basic literacy and numeracy skills have not been developed by the same students." (QLD, 290)*

*"Many of our parents feel there should be less time on LOTE and more on English." (VIC, 774)*

**Smaller classes** (5% of responses). Another frequently mentioned way of ensuring priority was given to literacy and numeracy was by improving teacher-student ratios, i.e. by decreasing numbers in classes through increased staffing.

*"Smaller groups can cater for the vast range of difference in ability of students." (NSW, 1038)...and when "children are actively engaged, progress can be monitored and concerns followed up immediately and consistently." (VIC, 782)*

This was thought to be particularly beneficial for the first three years of schooling.

*"It has been the best experiment I have ever been involved in--by lowering class sizes to below 20 has enabled us to improve learning outcomes for all students greatly." (ACT, 2)*

**Schools to have more autonomy in decision-making and be subject to less external interference** (5% of responses). Many principals thought that in order to increase the focus on literacy and numeracy they should be left alone to get on with the job of teaching and to organise their own budgeting and other arrangements. There were various aspects to this including a request for stability (2%). Many schools complained about the rate and degree of change and felt there was little stability currently. This was a common complaint amongst NSW schools but arose in other systems as well:

*"No more changes! Allow us time to consolidate effective practices. (VIC, 770) ..Give us time to bed down the changes the CSF have brought. (VIC, 703) Don't keep changing the syllabus every three years. A syllabus needs a life of 7-10 years to start taking effect. (NSW, 1127)...Decide on something and stick with it. (NSW, 995) The constant bickering and changes to the syllabus have led to considerable cynicism (NSW, 1062). Slow the pace of introduction of statements and profiles, level assessments and literacy and numeracy initiatives to allow overburdened teachers to catch up (SA, 467) and to come to grips with current innovations (NSW, 1203).*

Some schools (2%) also wanted more autonomy and thought they could create a greater focus through managing their own budgets, staffing and other administrative arrangements. Consequently there were comments such as:

*"Give money directly to the schools for use in a way that is appropriate to the school. (SA, 478)...Funds can be used more flexibly (NSW, 921) to provide release for teachers to develop programs (NSW, 1020) or to upgrade resources (QLD, 363). In this way schools can determine their own relative priorities regarding increased auxiliary support, materials, professional development (SA, 417) or can allow flexible staffing arrangements depending on particular situations or problems." (NSW, 1090)*

There was also a feeling that it would be better to develop curriculum within the school rather than have it imposed from elsewhere:

*"Allow schools to specialise in the focus curriculum areas rather than an expected broad approach" (NSW, 940)*

*"Ensure that schools are really free to make curriculum decisions on strategies addressing the KLA's and any 'add-on' areas." (VIC, 739)*

There was also an opinion expressed by some (1%) that education was being used to serve political agenda and so there were comments such as:

*We also need to know that things won't change on the basis of a political whim. (NSW, 1072) Education must become less of a political football so that we can have a period of stability and continuity. " (NSW, 1155)*

and as a result there were demands:

*"to see schools as a place of learning in a true 'development of the student as a person' sense instead of serving the purposes of politicians who have their own agenda" (SA, 390)*

and for:

*"Governments to keep their noses out of schools and let schools do the thing they do best--teach." (NSW, 1015)*

In addition, there was a complaint that there is too much 'bad press' regarding numeracy and literacy standards and so respondents said that for literacy and numeracy to be seen as a high priority there needed to be less negative media coverage (1%):

*"Resist negative media saying 'Standards are falling' but rather congratulate and praise the work done by teachers." (NSW, 935)*

*"There need to be better press reports of school successes in these areas. Many parents take more notice of negative media reporting than positive reports from the school." (SA, 492)"*

*"There needs to be more pro-active reporting to the mass media from peak bodies about advances being made in literacy and numeracy. Too often the media seize on isolated cases and schools. Then principal associations, and teacher unions are placed in a poor light being reactive." (SA, 490)*

***New and increased monitoring and assessment*** (5% of responses). There was also a call for increased accountability through data collection, monitoring of children and testing within and across schools (2%), as this was seen as a means to demonstrate that literacy and numeracy are being taken seriously. It was suggested that mapping and focusing on student outcomes was necessary to:

*"Discover students at risk (QLD, 362), to give teachers some chance of adequately addressing those in need (NSW, 1073), to create benchmarks in order to compare schools and through student profiles provide details to parents with an indication of progress and strategies." (SA, 466)*

Teachers in Queensland often supported the use of the 'Diagnostic Net' and the '1-3 Developmental Continuum' (1%) and often suggested that this be extended right throughout the primary school. Furthermore, there was a feeling amongst some, that if central Government bodies instigated literacy and numeracy requirements then it would be necessary to introduce inspection (1%):

*"Bring about inspectors to ensure schools are implementing procedures they are required to do by State Education Departments. Many schools pay lip service to such requirements. (QLD, 322). For example, make sure all teachers K-6 in NSW are adhering to the excellent mathematics syllabus." (NSW, 979)*

Another 1% wanted new or revamped forms of assessment. For example:

*"Improve the standard of the LAP. In its current form it is invalid, requires much preparation on the part of the students and does not necessarily assess knowledge/skills of the KLA's in question. If it has to be done, then it should be made worthwhile." (VIC, 798)*

*"There should be a better system of assessing, recording and reporting. There is still room for improvement." (SA, 464)*

*"We need better advice regarding screening, testing and tracking and resources for tracking." (NSW, 1040)*

A small number also wanted to move away from external testing to school-based assessment which was perceived to be more relevant.

***The creation of a whole school plan/policy to set priorities*** (5% of responses). Another group stated that a positive action that would help to establish literacy and numeracy as priorities would be to incorporate appropriate statements into School documents (2%). Victorian principals commonly referred to prioritising literacy and numeracy within school charters:

*"Both literacy and numeracy should be named as charter priorities to ensure emphasis is placed on these curriculum areas."* (VIC, 1212)

Principals from other systems said that the focus should be adopted within school management plans, policies and vision statements:

*"Firstly a strategic plan needs to be developed. This will give a clear indication of what has been achieved, what needs are currently being addressed and the main focus for future planning."* (NSW, 1220)

Associated with the above was the suggestion of a whole-school approach (1%) including collaboration in planning timetables, resources and delivery, ensuring consistency of approach or program throughout the school, providing whole staff PD, providing strong co-ordination and gaining support from school councils. In order to implement a whole-school approach to literacy and numeracy there was also an expectation of commitment from school councils, executive staff (including the principal), teaching staff and parents. At the same time it was expected that schools should set priorities (1%):

*"In recognition of their importance make numeracy and literacy charter priorities (VIC, 712)...Set specific school goals for improvement in both of these areas."* (VIC, 690)

There were comments to the effect that it is necessary to be overt in giving literacy and numeracy a high profile (1%). This could be demonstrated by: providing funds to support the emphasis; nominating these areas as policy priorities; making them the core/major area of the curriculum; increasing the amount of time spent on them; promoting them strongly; and by highlighting achievements in the area.

Additionally, to foster a whole-school approach and to inform policy and planning it was also pointed out that there should be regular reviews of curriculum documents, and evaluation of the strengths and weaknesses in the school's literacy and numeracy teaching and programs.

***Collaboration within the school community*** (4% of responses). Respondents commented that greater focus on literacy and numeracy could be achieved through co-operation and collaboration amongst the staff and the parent body.

Regarding staff collaboration (3%) there were suggestions to foster and support: teaching networks; clusters of similar/neighbouring schools to share resources and teaching expertise; links between primary and secondary literacy/numeracy programs; time for teachers to reflect collaboratively; teams of teachers to plan curricula; teachers assisting each other in developing resources; and teacher/support teacher teams.

It was also observed that it is imperative to foster parental collaboration (1%). Several respondents thought it was important to involve parents in: hearing reading; assisting with small group work; curriculum planning; working with children at home; endorsing school programs; and understanding the latest trends, strategies and programs. The rationale for such involvement is encapsulated in the following:

*"Literacy and numeracy must be given priority to students in the 1-5 year bracket. If parents don't value basic reading and life skill maths then the child does not then consider them to be of importance. (QLD, 319) To get literacy a priority parental attitudes are very important via home reading and modelling. (QLD, 174) You need to increase opportunities, therefore, to strengthen the home-school partnership and get parents involved in their children's education, like getting them into school to see what's happening and to get them to work with small groups."* (VIC, 696)

***The provision of clearer and simpler guidelines and stronger leadership*** (4% of comments)

There was also a request for clearer guidelines regarding the curriculum and assessment procedures. This was a particularly strong theme from NSW respondents. Here is a compilation of some typical comments.

*"Reduce the number of syllabus documents to be implemented (NSW, 1028)...Stop the flood!. Teachers are drowning in a sea of paper --the syllabus, support documents and a growing list of things that should be taught. Integrate the documents and make it user-friendly (NSW 1020) clear and concise (NSW 905). We need to know what is expected of students at each level and the content which needs to be covered to achieve this. (NSW, 849) We also need to have a decision from the centre on the amount of time to be spent on various subjects. (NSW, 978) Also simplify and standardise reporting procedures (NSW, 863). This would give teachers more time to focus on the teaching of literacy and numeracy (NSW, 839).*

Principals from other States/Territories made similar comments, however:

*"Provide staff with a developmental curriculum R-7 which spells out exactly what must be taught at each year level."(SA, 484)*

*"Statements and Profiles materials need to be translated into a concise course of instruction that cites topics to be taught at each year level with a concise set of outcomes. At present, the Statements and Profiles documents are cumbersome and a major distraction to effective teaching." (SA, 422)*

*"A scope and sequence should be developed with step-by-step lessons." (QLD, 222)*

*"We need to have more structured guidelines about what is to be expected and achieved grade by grade." (ACT, 1310)*

There were also calls from a few respondents for a national rather than local thrust for literacy and numeracy:

*"Programs for literacy and numeracy should be nation-wide: there should not be different programs for each state." (NSW, 977)*

*"Develop national standards linked to age/grade development." (VIC, 619)*

*"Provide curriculum materials and syllabus which are nationally based." (QLD, 238)*

However, at the local level there was a demand for *"Strong school leadership and direction (1%) towards positive literacy/numeracy outcomes."* (WA, 85)

In this way:

*"Efficient running of the school ensures teachers are well-informed and equipped; teachers are not distracted from their task; it is easy for teachers to do their work in numeracy and literacy well with minimum change and maximum improvement." (TAS, 521)*

***Matching teaching to student needs (including early intervention)*** (4% of responses). Closely related to the idea of monitoring, 3% of respondents indicated that literacy and numeracy will only be given priority when teaching is matched to students' learning needs. Typical comments included:

*"Individualise the learning for students, having students working at their own level." (QLD, 319)...*"with students grouped according to stage rather than by chronological age"* (NSW, 1021)...*"in order to care for both children requiring extension or remediation."* (NSW, 1028) and to *"support NESB and Aboriginal students."* (NSW, 1154)*

In order to meet the needs of 'at risk' students, intervention strategies were often advocated (1%) *"especially to get struggling students on to the learning path before 'failure' becomes entrenched."* (TAS, 511) *"So it is important to identify students experiencing difficulties in Prep and treat early"* (VIC, 723) and *"have 'one-on-one' safety net programs for those who need it."* (NSW, 1080)

**Introduction of new programs and materials** (4% of responses). Respondents stated that another positive action to ensure priority is given to literacy and numeracy is to introduce and extend particular programs and to make sure they are relevant. 2% nominated specific programs such as:

- Keys to Life (particularly Victoria)
- Reading Recovery
- Support-a-Reader, Support-a-Writer (particularly Queensland)
- Count Me In
- Bridging the Gap
- Program 'Achieve'
- National competitions

Another group (1%) also wanted to ensure that literacy and numeracy was seen by students as meaningful and relevant:

*"Children need to see a purpose in learning so teaching should be carried out through real life experiences and application. (VIC, 758)..in a way that is challenging and interesting. (QLD, 1300) Giving literacy 'life' makes it appealing to students. This is a positive move. (SA, 401) Also integrating the subject with work on computers makes the learning more real and provides greater meaning." (WA, 138)*

In relation to the last point there was also a call for the use of technology to support literacy and numeracy and software to support all levels of student ability. It was also pointed out that in order to be relevant, children need up-to-date reading sets, maths kits, maths games and maths equipment that are well organised and interesting.

**Reorganisation of the timetable** (2% of responses). A number of respondents thought:

*"That the timetable should reflect a greater focus on literacy and numeracy, i.e., that class timetables reflect a major proportion of time dedicated to literacy and numeracy." (WA, 152)*

Some suggestions about how to do this included: set blocks of time when the whole school is engaged in literacy and numeracy; uninterrupted core learning time from 9-12 each day; reducing the time spent teaching other KLA's from 1.5 to 1 hour a day; rigorous adherence to a literacy block from 9-11 for 45 minutes on numeracy.

**Improved pre-service teacher education** (2% of comments). A number of respondents also felt that literacy and numeracy would not receive an appropriate emphasis without high quality pre-service programs. It was stated that teacher-training courses need to ensure that new teachers:

- have attained appropriate levels of literacy and numeracy themselves;
- have skills in how to teach reading, spelling, and number;
- understand the developmental stages of learning;
- understand modern learning theory;
- understand cross-cultural implications for the teaching of literacy and numeracy;
- know how to design programs;
- have hands on experience during their practicum, and;
- are confident in a variety of educational settings.

**More solid teaching of the 'basics'** (2% of responses). Another group of respondents stated that to ensure literacy/numeracy was given priority, teachers needed to go 'back to basics' and teach core skills and concepts such as comprehension, reading, grammar, spelling, mathematical rules, and tables. In order to do this it was felt that teachers need to concentrate on 'pure' teaching rather than on other tasks currently expected of them (such as administration and counselling) and which have eaten into professional time.

**Improvement of teacher morale** (1% of responses). It was felt by some that levels of literacy and numeracy of students are unlikely to improve unless the morale of teachers is also improved. As one respondent commented:

*"The morale of teachers needs to be lifted before any ongoing improvement can be achieved. This is the real challenge. If practitioners are appreciated (and not made to feel guilty for all society's shortcomings) then sustainable goals are achievable."* (VIC, 632)

Consequently, there were calls for teachers' work to be valued:

*"Teachers must be able to see that their efforts are making a difference and have this recognised as a profession" (VIC, 591)..They need reassurance that their efforts are appreciated (NSW, 1159)..and the community must value what teachers know and do ."* (NT, 1302)

## **18** Summary of findings

The aim of the present study was to investigate the place of literacy and numeracy within the primary school curriculum and the priority schools are attaching to them. The motivation for the study was an appreciation of the importance of literacy and numeracy within the primary school curriculum and a concern that pressures to add more to the curriculum may have been exerting a negative impact on the time, resources and priority given to literacy and numeracy.

A questionnaire was distributed to principals in a stratified random sample of Australian primary schools and usable returns were received from 459 schools. An analysis of these returns indicates a remarkably positive picture. In response mainly to external pressures, schools over the past three years have sought both to broaden the curriculum and to place a greater emphasis on literacy and numeracy. The greatest changes have been an increased emphasis on literacy, especially in the early years, followed by an emphasis on the use of computers and technology in the classroom. The survey thus established that there has been a degree of 'overloading' of the curriculum, but that this has not adversely affected the time or importance attached to literacy or numeracy. It is also clear that the major emphasis of schools in recent years has been on literacy, especially early literacy, rather than on numeracy.

In more detail, the survey established that principals perceive that the time devoted to different curriculum areas has increased over the past three years. Schools are spending more time on different curriculum areas, which points to a greater reliance on integrated approaches to teaching across different learning areas.

The areas of the curriculum for which schools perceive the greatest increases in time are English and Technology, followed by Mathematics, Health and Physical Education and LOTE. The increased emphasis on English is consistent with an increased emphasis on literacy. It is also a very pronounced emphasis, with 77.6% of schools reporting that the time devoted to English has increased a little or a lot in the initial three years of the primary school and 68.4% reporting that the time devoted to English has increased a little or a lot in the last three years of the primary school.

The emphasis on Technology reflects the enormous impact and growth in the use of computers in schools. Principals also perceive an increase in the time devoted to mathematics, which indicates an increased emphasis on numeracy. Additional time devoted to Health and Physical Education and LOTE reflect the impact of the introduction of the eight key learning areas and State/Territory initiatives promoting these particular learning areas.

The areas of the curriculum in which schools perceive the greatest decreases in allocated time are *The Arts*, *Studies of Society and Environment*, and *Science*. This is a finding that may warrant careful attention to ensure that the amounts of time currently allocated to these areas are adequate. In particular, the perceived reduction in time allocated to Science is of particular interest in the light of interest in science performance generated by international surveys such as the Third International Mathematics and Science Study (TIMSS).

In the early years, primary schools are devoting, on average, approximately nine hours a week to literacy and just under four hours a week to numeracy. In the final years, primary schools are devoting just over eight hours a week to literacy and five hours to numeracy. This suggests that primary schools are converging on a 40-20-40 division of time (40% to English/literacy, 20% to mathematics/numeracy and 40% to other key learning areas). The slight decline in the number of hours per week spent on literacy and the slight increase in the number of hours spent on numeracy in primary schools is an entirely expected trend.

Changes in perceptions of time devoted to different curriculum areas are generally consistent across States and Territories with the exception of English, Technology and LOTE, and in particular with responses indicating greater time being devoted to LOTE in Tasmania and Western Australia. The latter variations can readily be linked to recent curriculum initiatives in those States that follow earlier initiatives in other States/Territories.

Responses of principals indicate a widespread perception that the amount of time devoted to activities such as parent communication, school governance, curriculum development and implementation, and student discipline and welfare, have increased substantially over the past three years. Primary schools have become busier places and extra time devoted to extra curricular activities inevitably adds to perceptions of 'overload' within the curriculum.

The great majority of schools perceive that over the last three years the curriculum has become broader and that a wider range of curriculum content is being taught. Furthermore, these schools perceive that there has been increased external pressure to add more to the curriculum. Some of this pressure emanates from parents while some emanates from school systems and from the community at large. Some of the pressures can be seen to be 'market driven' while some are driven by the perception that schools have an important role to play in addressing social issues and filling the 'gaps' left by traditional institutions and agencies. Open-ended comments suggest that principals and teachers frequently lament this 'overloading' of the curriculum.

On a more positive note, a majority of schools believe that there is greater clarity about literacy standards that schools are expected to achieve, due mainly to curriculum and standards frameworks developed and implemented within systems in recent years. In addition, the great majority of schools perceive that over the last three years literacy and to a lesser extent numeracy have increased as priorities and are being given a greater emphasis within the curriculum. This increased emphasis, particularly on early literacy, is almost universally welcomed by schools and is consistent with recent policies and initiatives of the Commonwealth and State/Territory Governments.

Most schools believe that students are making the same progress or greater progress in literacy and numeracy and that teachers' confidence about ensuring success in literacy and numeracy is the same or has increased over the past three years. Significantly, more schools believe that low achieving students have benefited most from changes to the curriculum in recent years as opposed to high achieving students. Responses to open-ended questions indicated an interest in enhancing intervention programs and special assistance for 'at risk' students.

While responses overall indicate a relatively positive situation, a majority of principals perceive that classroom teachers have experienced some difficulties in adapting to recent changes in curriculum. This serves to highlight the importance of professional development and of both materials and professional support for classroom teachers.

Schools perceive that they have increased freedom to make decisions about the time allocated to different learning areas, if not about content of the curriculum. This reflects a tendency for systems to establish expectations, if not requirements regarding which learning areas schools will seek to offer, but to leave it to schools to determine time allocations.

Schools perceive that more financial support had been made available for literacy, particularly literacy intervention for 'at risk' students, but that less financial support has been made available for numeracy. On the other hand, responses to open-ended questions produced a significant number of responses from schools that have been able to allocate additional resources to numeracy.

Respondents also believe that access to professional development and support have increased for literacy, especially in the early years, but that professional development and support for numeracy have decreased slightly.

Responses to open-ended questions revealed that principals perceive that the most important changes affecting the teaching of literacy in recent years have been:

- new curriculum initiatives, particularly State/Territory initiatives;
- the introduction of new literacy programs such as *Keys to Life*, *Reading Recovery*, *First Steps*, and so on;
- new teaching and organisational strategies;
- increased professional development and training;
- the appointment of specialist/support teachers;
- either *increased* resources or *inadequate* resources available for literacy (opinion was equally divided on whether they were increased or inadequate), and;
- increased attention to matching teaching to the needs of students.

Principals perceive that the most important changes affecting the teaching of numeracy have been:

- new teaching strategies including the use of new resources;
- new curriculum initiatives, particularly State/Territory initiatives;
- more resources available for numeracy;
- the development of school plans/policies for numeracy;
- increased professional development; and
- an increase in experienced special and support staff.

Primary school principals believe that the most positive actions that could be taken to ensure that literacy and numeracy are given priority within the school curriculum are:

- to increase funding;
- to increase access to appropriate professional development and training;
- to increase provision or access to specialist and support staff, and;
- to reduce overcrowding of the curriculum.

The findings of this survey provide encouraging feedback regarding the place of literacy and numeracy in the primary school curriculum and on the impact of relevant Government policies and programs. They also point to the kinds of issues that need to be addressed if numeracy is to receive the same attention as literacy within primary schools and if the excellent foundations being established in the early years in literacy are to be extended across the curriculum and into the later years.

**APPENDIX 1** Letter to schools and Questionnaire



## Australian Primary Principals' Association Inc.

### **Re: The place of Literacy and Numeracy in the Primary School Curriculum National Survey**

Dear Colleague,

This is a request for your valued participation in a national survey on "*The Place of Literacy and Numeracy in the Primary School Curriculum*". The survey is being supported by Principals' Associations in every State and Territory. This project funded by DEETYA and developed jointly by APPA and Professor Peter Hill (The Centre for Applied Educational Research, The University of Melbourne) will provide important data to assist APPA in supporting primary principals and the students in our schools. The survey is designed to obtain:

- Estimates of the amount of time and resources that schools are allocating to literacy & numeracy, and the factors affecting that allocation
- Indications to the extent to which teachers have accommodated to recent initiatives for schools to broaden their curriculum emphases and offerings

Outcomes of the survey will be used to assist State/territory Government and non-Government education authorities to implement strategic professional development programs to support the implementation of the National Literacy and Numeracy Plan – announced by the Federal Minister for Schools, Vocational Education and Training during 1997.

Please complete the enclosed questionnaire and return it via the enclosed self-addressed envelope by Friday March 29, 1998. As indicated in the cover sheet of the questionnaire, any information you supply about your school will be treated in the strictest of confidence since only general summaries of the data will be reported. Under no circumstances will schools be identified or compared.

If you have any queries regarding the survey please feel free to contact

Mr Chris Cameron (President, APPA) at Forrest Primary School, Hobart Ave, FORREST ACT 2603; Telephone: (02) 6205 5644; Fax: (02) 6205 5615; e-mail: [chris.cameron@forrestps.act.edu.au](mailto:chris.cameron@forrestps.act.edu.au) or

Mr John Turner (Executive Officer, APPA) PO Box 751, SUNBURY VIC 3429; Telephone: (03) 9740 6200; Fax: (03) 9740 9077; e-mail: [cojo@mfmm.net.au](mailto:cojo@mfmm.net.au).

Thank you for your valued assistance.

Yours sincerely,

Chris Cameron  
President  
Australian Primary Principals' Association Inc

Professor Peter Hill  
Centre for Applied Educational Research  
Faculty of Education,  
University of Melbourne

**The Place of Literacy and Numeracy in the  
Primary School Curriculum**

**A joint research project of  
The Australian Primary Principals' Association and  
The Centre for Applied Educational Research,  
The University of Melbourne**

**INSTRUCTIONS:**

Principals, thank you for taking the time to participate in this important project. Your good will in completing the questionnaire as completely and accurately as possible is very much appreciated. Please provide a response to ALL items.

Please note that any information you supply about your school will be treated with the **strictest of confidence** since only general summaries of the data will be reported. **Under no circumstances** will schools be identified or compared.

The questions have been designed to be answered quickly and easily. For most questions, you need only **cross** the appropriate category provided for each item (eg. ~~3~~). When you have completed the entire questionnaire please seal it in the envelope supplied and **post it** to the *Centre for Applied Educational Research*, Faculty of Education, The University of Melbourne, Level 4, Alice Hoy Building by **Friday, 29th March, 1988**.

If you have any queries about the project, please feel free to contact Mr **Chris Cameron**, President, Australian Primary Principals' Association; Forrest Primary School, Hobart Avenue FORREST, ACT 2603

*Tel.* (02) 6205 5644; *Fax.* (02) 6205 5615; ***E-mail.*** [chris.cameron@forrestps.act.edu.au](mailto:chris.cameron@forrestps.act.edu.au) or  
Mr John Turner, Executive Officer *Tel.*: (03) 9740 6200; *Fax*: (03) 9740 9077; ***E-Mail***  
[cojo@mfmm.net.au](mailto:cojo@mfmm.net.au)

THANK YOU FOR YOUR VALUED ASSISTANCE

### 1. BACKGROUND INFORMATION

1. State/Territory:                                                                                    
                                  ACT    NSW    NT    QLD    SA    TAS    VIC    WA
  
2. Grade-level enrolments:                                                                                    
                                  Pre-Yr1    Year 1    Year 2    Year 3    Year 4    Year 5    Year 6    Year 7
  
3. School enrolment:      \_\_\_\_\_ Total
  
4. Student Intake:                      Number of students enrolled in the school from *Language Backgrounds Other than English*: \_\_\_\_\_  
     LBOTE
  
5. Student Intake: EMA                  Number of students enrolled in the school from families in receipt of an *Educational Maintenance Allowance*: \_\_\_\_\_
  
6. Student Intake:                      Number of Aboriginal or Torres Strait Islander students enrolled in the school: \_\_\_\_\_  
     *Indigenous*

### 2. CHANGES IN CURRICULUM EMPHASIS

Indicate the **extent to which** the **time** devoted to each of the learning areas listed in the first column of the following table has changed during the *past three years* (1996-1998) for students in the **INITIAL 3 YEARS** of their primary schooling, by crossing the appropriate number in one of the scale categories (e.g., 4):

Learning Area	Decreased a lot	Decreased a little	Remained the same	Increased a little	Increased a lot	Not applicable
1. The Arts	1	2	3	4	5	6
2. English	1	2	3	4	5	6
3. Health and Physical Education	1	2	3	4	5	6
4. Languages other than English	1	2	3	4	5	6
5. Mathematics	1	2	3	4	5	6
6. Science	1	2	3	4	5	6
7. Studies of Society & Environment	1	2	3	4	5	6
8. Technology	1	2	3	4	5	6

Indicate the **extent to which** the **time** devoted to each of the eight learning areas listed in the first column of the following table has changed during the *previous three years* (1996-1998) for students in their **FINAL 3 YEARS** of primary schooling, by crossing the appropriate number in one of the scale categories (e.g., 4):

Learning Area	Decreased a lot	Decreased a little	Remained the same	Increased a little	Increased a lot	Not applicable
1. The Arts	1	2	3	4	5	6
2. English	1	2	3	4	5	6
3. Health and Physical Education	1	2	3	4	5	6
4. Languages other than English	1	2	3	4	5	6
5. Mathematics	1	2	3	4	5	6
6. Science	1	2	3	4	5	6
7. Studies of Society & Environment	1	2	3	4	5	6
8. Technology	1	2	3	4	5	6

### 3. CURRICULUM INTEGRATION/SPECIALISATION

In the table below, indicate which of the following applies to the way in which various learning areas are taught **most of the time** for students in their **INITIAL 3 YEARS** at your school, by crossing the appropriate number (e.g., 3):

Learning Area	A Not taught to students	B Taught as a separate subject by the class teacher	C Integrated with the teaching of other learning areas	D Combinations of B & C	E Taught by a specialist teacher
1. English	1	2	3	4	5
2. Mathematics	1	2	3	4	5
3. Science	1	2	3	4	5
4. SOSE*	1	2	3	4	5
5. LOTE	1	2	3	4	5
6. Art	1	2	3	4	5
7. Music	1	2	3	4	5
8. Health	1	2	3	4	5
9. P.E./Sport	1	2	3	4	5

\* Studies of Society & the Environment

In the table below, indicate which of the following applies to the way in which various learning areas are taught **most of the time** for students in their **FINAL 3 YEARS** at your school, by crossing the appropriate number (e.g., 2):

Learning Area	A Not taught to students	B Taught as a separate subject by the class teacher	C Integrated with the teaching of other learning areas	D Combinations of B & C	E Taught by a specialist teacher
1. English	1	2	3	4	5
2. Mathematics	1	2	3	4	5
3. Science	1	2	3	4	5
4. SOSE*	1	2	3	4	5
5. LOTE	1	2	3	4	5
6. Art	1	2	3	4	5
7. Music	1	2	3	4	5
8. Health	1	2	3	4	5
9. P.E./Sport	1	2	3	4	5

\* Studies of Society & the Environment

#### 4. TIME SPECIFICALLY ALLOCATED TO LITERACY & NUMERACY

In the spaces provided, give *estimates* of the **average number of hours and minutes per week** currently devoted specifically to the teaching of **LITERACY** at your school:

Year	Pre-Yr 1	1	2	3	4	5	6	7
<b>Time</b>	: Hrs min	: Hrs min	: Hrs min	: Hrs min	: Hrs min	: Hrs min	: Hrs min	: Hrs min

In the spaces provided, give *estimates* of the **average number of hours and minutes per week** currently devoted specifically to the teaching of **NUMERACY** at your school:

Year	Pre-Yr 1	1	2	3	4	5	6	7
<b>Time</b>	: Hrs min	: Hrs min	: Hrs min	: Hrs min	: Hrs min	: Hrs min	: Hrs min	: Hrs min

<b>5. OTHER TIME</b>
----------------------

Indicate the **extent to which** there have been **changes** in the **amount of time** devoted to each of the following activities at your school **during the previous three years** (1996-1998) by crossing the appropriate number on the scale provided (e.g., 2 ):

	<b>Decreased a lot</b>				<b>Increased a lot</b>
1. External special events (e.g., excursions, camps, inter-school cultural events and sporting carnivals)	1	2	3	4	5
2. Student withdrawal programs (e.g., Music, ESL, remedial, enrichment or accelerated programs)	1	2	3	4	5
3. Student discipline and welfare	1	2	3	4	5
4. Internal special events (e.g., assemblies, fund-raising, whole-school cultural and sporting activities)	1	2	3	4	5
5. Within-school administrative activities (such as: collection of monies, public address announcements, delivery of messages to classrooms, organisation of teaching resources)	1	2	3	4	5
6. Parent participation (e.g., parents reading to and/or listening to children read; direct assistance in the classroom; making teaching aids, etc.)	1	2	3	4	5
7. Parent communication (e.g., Parent-teacher consultations; Parent information/education programs)	1	2	3	4	5
8. School governance (e.g., Teacher and staff meetings; School Board/Council/parent bodies meetings; curriculum committees)	1	2	3	4	5
9. Curriculum development/implementation activities for teachers that are organised centrally by state and/or regional bodies	1	2	3	4	5
10. Establishing and maintaining links with other schools, such as curriculum networks, sharing resources/expertise, etc.	1	2	3	4	5

## 6. THE SITUATION IN YOUR SCHOOL

For each of the following paired statements, please mark a **cross** over the dot (i.e., o ) which is **nearest** the statement that **best** describes the situation in your school as it applies to the **previous three years** (1996-1998).

- |  |   |   |   |   |   |   |
|--|---|---|---|---|---|---|
| 1. The curriculum has become <b>broader</b>  | o | o | o | o | o | The curriculum has become <b>narrower</b>   |
| 2. The time allocated for specific teaching of <b>literacy</b> in the <b>first 3 years</b> of schooling has <b>decreased</b>     | o | o | o | o | o | The time allocated for specific teaching of <b>literacy</b> in the <b>first 3 years</b> of schooling has <b>increased</b>     |
| 3. There is <b>more time</b> available for specific teaching of <b>numeracy</b> in the <b>final 3 years</b> of primary schooling | o | o | o | o | o | There is <b>less time</b> available for specific teaching of <b>numeracy</b> in the <b>final 3 years</b> of primary schooling |
| 4. A <b>wider</b> range of curriculum content is being taught in the <b>first 3 years</b> of schooling                           | o | o | o | o | o | A <b>narrower</b> range of curriculum content is being taught in the <b>first 3 years</b> of schooling                        |
| 5. The school has <b>increased freedom</b> to make decisions about curriculum content  | o | o | o | o | o | The school has <b>less freedom</b> to make decisions about curriculum content   |
| 6. Classroom teachers have experienced <b>difficulties in adapting</b> to recent changes in the curriculum                       | o | o | o | o | o | Classroom teachers have <b>adapted well</b> to recent changes in the curriculum   |
| 7. Recent changes in the curriculum <b>have not improved</b> the quality of education for most students                          | o | o | o | o | o | Recent changes in the curriculum <b>have improved</b> the quality of education for most students                              |
| 8. The curriculum overall has become more <b>coherent</b>  | o | o | o | o | o | The curriculum overall has become more <b>fragmented</b>  |
| 9. A <b>narrower</b> range of curriculum content is being taught in the <b>final 3 years</b> of primary schooling                | o | o | o | o | o | A <b>broader</b> range of curriculum content is being taught in the <b>final 3 years</b> of primary schooling                 |
| 10. There is <b>more clarity</b> about students' <b>literacy standards</b> that schools are expected to achieve                  | o | o | o | o | o | There is <b>less clarity</b> about students' <b>literacy standards</b> that schools are expected to achieve                   |
| 11. Students <b>have not</b> been making greater progress in <b>literacy</b> during the <b>first 3 years</b> of their schooling  | o | o | o | o | o | Students <b>have been</b> making greater progress in <b>literacy</b> during the <b>first 3 years</b> of their schooling       |

For each of the following paired statements, please mark a **cross** over the dot (i.e., o ) which is **nearest** the statement that **best** describes the situation in your school as it applies to the **previous three years** (1996-1998).

- |  |   |   |   |   |   |  |
|--|---|---|---|---|---|--|
| 12. <b>More</b> attention is being paid to <b>literacy</b> relative to other curriculum areas in the <b>final 3 years</b> of primary schooling | o | o | o | o | o | <b>Less</b> attention is being paid to <b>literacy</b> relative to other curriculum areas in the <b>final 3 years</b> of primary schooling |
|--|---|---|---|---|---|--|

- |  |                          |  |
|--|--------------------------|--|
| <p>13. Literacy has <b>increased</b> in importance as a priority in this school</p>  | <p>o   o   o   o   o</p> | <p>Literacy has <b>decreased</b> in importance as a priority in this school</p>  |
| <p>14. Teachers have <b>more access</b> to professional development focused on the teaching of <b>numeracy</b> relevant to the <b>first 3 years</b> of schooling</p> | <p>o   o   o   o   o</p> | <p>Teachers have <b>less access</b> to professional development focused on the teaching of <b>numeracy</b> relevant to the <b>first 3 years</b> of schooling</p> |
| <p>15. <b>Less resources</b> have been made available to provide <b>literacy</b> interventions for ‘at risk’ students</p>  | <p>o   o   o   o   o</p> | <p><b>More resources</b> have been made available to provide <b>literacy</b> interventions for ‘at risk’ students</p>  |
| <p>16. The <b>depth</b> of curriculum coverage for areas other than literacy and numeracy in the <b>final 3 years</b> of primary schooling has <b>increased</b></p>  | <p>o   o   o   o   o</p> | <p>The <b>depth</b> of curriculum coverage for areas other than literacy and numeracy in the <b>final 3 years</b> of primary schooling has <b>decreased</b></p>  |
| <p>17. Teachers have become <b>more confident</b> about ensuring success for all students in <b>numeracy</b></p>   | <p>o   o   o   o   o</p> | <p>Teachers have become <b>less confident</b> about ensuring success for all students in <b>numeracy</b></p>   |
| <p>18. Parents express a desire for the school to offer a <b>broader range</b> of subjects and specialist programs</p>   | <p>o   o   o   o   o</p> | <p>Parents express a desire for the school to concentrate on a <b>narrower range</b> of subjects and specialist programs</p>                                     |
| <p>19. Teachers have <b>less access</b> to professional development focused on the teaching of <b>literacy</b> relevant to the <b>first 3 years</b> of schooling</p> | <p>o   o   o   o   o</p> | <p>Teachers have <b>more access</b> to professional development focused on the teaching of <b>literacy</b> relevant to the <b>first 3 years</b> of schooling</p> |
| <p>20. There is <b>more financial support</b> to assist schools in achieving high <b>literacy</b> outcomes for students</p>  | <p>o   o   o   o   o</p> | <p>There is <b>less financial support</b> to assist schools in achieving high <b>literacy</b> outcomes for students</p>  |
| <p>21. Students have been making <b>greater progress</b> in <b>literacy</b> during the <b>final 3 years</b> of their primary schooling</p>                           | <p>o   o   o   o   o</p> | <p>Students have been making <b>less progress</b> in <b>literacy</b> during the <b>final 3 years</b> of their primary schooling</p>                              |

For each of the following paired statements, please mark a **cross** over the dot (i.e., o ) which is **nearest** the statement that **best** describes the situation in your school as it applies to the **previous three years** (1996-1998).

- |  |                          |  |
|--|--------------------------|--|
| <p>22. There is <b>less professional support</b> to assist schools in achieving high <b>literacy</b> outcomes for students</p>   | <p>o   o   o   o   o</p> | <p>There is <b>more professional support</b> to assist schools in achieving high <b>literacy</b> outcomes for students</p>   |
| <p>23. High achieving students have <b>benefited least</b> from changes to the curriculum</p>  | <p>o   o   o   o   o</p> | <p>High achieving students have <b>benefited most</b> from changes to the curriculum</p>   |
| <p>24. Teachers have <b>less access</b> to professional development focused on the teaching of <b>numeracy</b> relevant to the <b>final 3 years</b> of primary schooling</p> | <p>o   o   o   o   o</p> | <p>Teachers have <b>more access</b> to professional development focused on the teaching of <b>numeracy</b> relevant to the <b>final 3 years</b> of primary schooling</p> |

25. There is increased external pressure to add more to the curriculum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	There is less external pressure to add more to the curriculum
26. Students have been making <b>greater progress</b> in <b>numeracy</b> during the <b>first 3 years</b> of their primary schooling	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Students have been making <b>less progress</b> in <b>numeracy</b> during the <b>first 3 years</b> of their primary schooling
27. Teachers have become <b>less confident</b> about ensuring success for all students in <b>literacy</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Teachers have become <b>more confident</b> about ensuring success for all students in <b>literacy</b>
28. Numeracy has <b>decreased</b> in importance as a priority in this school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Numeracy has <b>increased</b> in importance as a priority in this school
29. Teachers have <b>more access</b> to professional development focused on the teaching of <b>literacy</b> relevant to the <b>final 3 years</b> of primary schooling	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Teachers have <b>less access</b> to professional development focused on the teaching of <b>literacy</b> relevant to the <b>final 3 years</b> of primary schooling
30. The time allocated for specific teaching of <b>numeracy</b> in the <b>first 3 years</b> of primary schooling has <b>decreased</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	The time allocated for specific teaching of <b>numeracy</b> in the <b>first 3 years</b> of primary schooling has <b>increased</b>
31. Relative to other curriculum areas, <b>greater emphasis</b> is being placed on <b>literacy</b> teaching and learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Relative to other curriculum areas, <b>less emphasis</b> is being placed on <b>literacy</b> teaching and learning

For each of the following paired statements, please mark a **cross** over the dot (i.e., o ) which is **nearest** the statement that **best** describes the situation in your school as it applies to the **previous three years** (1996-1998).

32. Low achieving students have <b>benefited least</b> from changes to the curriculum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Low achieving students have <b>benefited most</b> from changes to the curriculum
33. The school has had <b>more freedom</b> in making decisions about the time allocated to different learning areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	The school has had <b>less freedom</b> in making decisions about the time allocated to different learning areas
34. <b>Literacy</b> is an area that has required <b>increased</b> levels of leadership and co-ordination	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<b>Literacy</b> is an area that has required <b>decreased</b> levels of leadership and co-ordination
35. There is <b>less financial support</b> to assist schools in achieving high <b>numeracy</b> outcomes for students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	There is <b>more financial support</b> to assist schools in achieving high <b>numeracy</b> outcomes for students
36. There is <b>more professional support</b> to assist schools in achieving high <b>numeracy</b> outcomes for students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	There is <b>less professional support</b> to assist schools in achieving high <b>numeracy</b> outcomes for students

<p>37. <b>Numeracy</b> is an area that has required <b>decreased</b> levels of leadership and co-ordination</p>	<p>o   o   o   o   o</p>	<p><b>Numeracy</b> is an area that has required <b>increased</b> levels of leadership and co-ordination</p>
<p>38. Students have been making <b>less progress</b> in <b>numeracy</b> during the <b>final 3 years</b> of their primary schooling</p>	<p>o   o   o   o   o</p>	<p>Students have been making <b>greater progress</b> in <b>numeracy</b> during the <b>final 3 years</b> of their primary schooling</p>
<p>39. Relative to other areas of the curriculum, <b>less emphasis</b> is being placed on <b>numeracy</b> teaching and learning</p>	<p>o   o   o   o   o</p>	<p>Relative to other areas of the curriculum, <b>greater emphasis</b> is being placed on <b>numeracy</b> teaching and learning</p>
<p>40. The <b>depth</b> of curriculum coverage for areas other than literacy and numeracy in the <b>first 3 years</b> of schooling has <b>decreased</b></p>	<p>o   o   o   o   o</p>	<p>The <b>depth</b> of curriculum coverage for areas other than literacy and numeracy in the <b>first 3 years</b> of schooling has <b>decreased</b></p>

**7. OPEN-ENDED RESPONSES**

What have been the **two** most important changes affecting the **teaching of LITERACY** at your school?

1. ....  
 .....  
 .....  
 .....  
 .....  
 .....
2. ....  
 .....  
 .....  
 .....  
 .....  
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What have been the **two** most important changes affecting the **teaching of NUMERACY** at your school?

1. ....  
 .....  
 .....  
 .....  
 .....

2. ....  
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On the basis of your experience, what are the **three** most **positive** things that could be done to ensure that **literacy** and **numeracy** are given **priority** within the primary school curriculum?

1. ....  
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2. ....  
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3. ....  
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**THANK YOU FOR YOUR VALUED ASSISTANCE**

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**APPENDIX 2**

**National Primary School Frame, by: State/Territory, Sector and Enrolment Size\* (1997-98)**

		≤50	51-200	201-350	351-500	501-650	651-800	> 800	Totals	% of Tot
<b>ACT</b>	<b>G</b>	2	13	27	23	3			68	68.7
	<b>C</b>	1	6	7	4	6	1	2	27	27.3
	<b>I</b>	1		1					4	4.0
Totals		<b>4</b>	<b>19</b>	<b>35</b>	<b>27</b>	<b>9</b>	<b>1</b>	<b>4</b>	<b>99</b>	<b>1.3</b>
<b>NSW</b>	<b>G</b>	381	427	397	315	146	75	24	1765	71.4
	<b>C</b>	51	170	123	101	46	22	39	552	22.3
	<b>I</b>	29	33	19	20	10	14	32	157	6.3
Totals		<b>461</b>	<b>630</b>	<b>539</b>	<b>436</b>	<b>202</b>	<b>111</b>	<b>95</b>	<b>2474</b>	<b>31.7</b>
<b>NT</b>	<b>G</b>	44	36	24	6	14	2	3	129	83.3
	<b>C</b>		7	2	5	1		1	16	10.3
	<b>I</b>	3	3	3	1				10	6.4
Totals		<b>47</b>	<b>46</b>	<b>29</b>	<b>12</b>	<b>15</b>	<b>2</b>	<b>4</b>	<b>155</b>	<b>2.0</b>
<b>QLD</b>	<b>G</b>	298	277	148	138	111	64	67	1103	76.5
	<b>C</b>	11	75	61	47	29	15	15	253	17.5
	<b>I</b>	6	13	12	7	11	6	31	86	6.0
Totals		<b>315</b>	<b>365</b>	<b>221</b>	<b>192</b>	<b>151</b>	<b>85</b>	<b>113</b>	<b>1442</b>	<b>18.5</b>
<b>SA</b>	<b>G</b>	78	213	167	74	19	1	5	557	77.3
	<b>C</b>	5	32	26	12	5	5	11	96	13.3
	<b>I</b>	5	24	14	9	5	4	7	68	9.4
Totals		<b>88</b>	<b>269</b>	<b>207</b>	<b>95</b>	<b>29</b>	<b>10</b>	<b>23</b>	<b>721</b>	<b>9.3</b>
<b>TAS</b>	<b>G</b>	16	53	53	26	5	3		156	75.0
	<b>C</b>		15	11	5	3	1	2	37	17.8
	<b>I</b>	3	4	1	2		2	3	15	7.2
Totals		<b>19</b>	<b>72</b>	<b>65</b>	<b>33</b>	<b>8</b>	<b>6</b>	<b>5</b>	<b>208</b>	<b>2.7</b>
<b>VIC</b>	<b>G</b>	256	407	404	202	75	18	7	1369	71.7
	<b>C</b>	25	134	121	60	22	6	8	376	19.7
	<b>I</b>	30	45	15	13	16	10	35	164	8.6
Totals		<b>311</b>	<b>586</b>	<b>540</b>	<b>275</b>	<b>113</b>	<b>34</b>	<b>50</b>	<b>1909</b>	<b>24.5</b>
<b>WA</b>	<b>G</b>	85	141	146	112	48	23	10	565	72.1
	<b>C</b>	13	35	48	22	15	3	11	147	18.7
	<b>I</b>	14	38	6	2	3	1	8	72	9.2
Totals		<b>112</b>	<b>214</b>	<b>200</b>	<b>136</b>	<b>66</b>	<b>27</b>	<b>29</b>	<b>784</b>	<b>10.1</b>
<b>Total</b>	<b>G</b>	1160	1567	1366	896	421	186	116	5712	<b>73.3</b>
	<b>C</b>	106	474	399	256	127	53	89	1504	<b>19.3</b>
	<b>I</b>	91	160	71	54	45	37	118	576	<b>7.4</b>
Totals		<b>1357</b>	<b>2201</b>	<b>1836</b>	<b>1206</b>	<b>593</b>	<b>276</b>	<b>323</b>	<b>7792</b>	
<b>% of Tot Per Strata</b>	<b>G</b>	14.9	20.1	17.5	11.5	5.4	2.4	1.5	<b>73.3</b>	
	<b>C</b>	1.4	6.1	5.1	3.3	1.6	0.7	1.1	<b>19.3</b>	
	<b>I</b>	1.2	2.0	1.0	0.7	0.6	0.5	1.5	<b>7.4</b>	

\* An additional 402 independent schools are not included here since the DEETYA database had missing enrolment data for these entries.

**G** = Government; **C** = Catholic; **I** = Independent