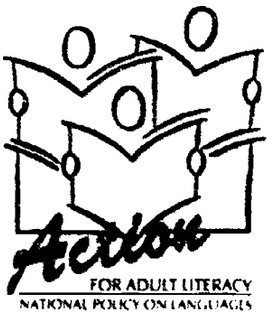
DOCUMENT RESUME

ED 328 798 CE 057 023

AUTHOR	Black, Stephen; And Others
TITLE	The Illiteracy Myth. A Comparative Study of Prisoner Literacy Abilities.
INSTITUTION	Technology Univ., Sydney (Australia).
SPONS AGENCY	Australian Dept. of Employment, Education and Training, Canberra.
PUB DATE	Jul 90
NOTE	28p.; New South Wales Dept. of Corrective Services provided additional funding to facilitate the project.
AVAILABLE FROM	Adult Literacy Information Office, 199 Regent, Redfern 2016, Australia (free).
PUB TYPE	Reports - Research/Technical (143)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Adult Literacy; Adult Reading Programs; Adults; Basic Skills; Correctional Education; Educational Improvement; Females; Foreign Countries; *Functional Literacy; Functional Reading; *Illiteracy; Males; Mathematics Skills; National Surveys; *Prisoners
IDENTIFIERS	*Australia (New South Wales)

ABSTRACT

Illiteracy is seen to be a feature of the Australian prisoner population. This belief has remained largely untested. A study compared the literacy abilities of prisoners to those found in the adult general population. Additionally, the study compared male and female prisoner literacy abilities. Assessments were made on a profile of literacy abilities of prisoners, and comparisons were made with those found in the adult general population using a national survey instrument. Tasks were identified in three main dimensions: document literacy, prose literacy, and quantitative literacy. An interview questionnaire surveyed 97 male and 95 female New South Wales prisoners on both background and literacy and numeracy related tasks. Comparative data were outlined based on mean scores and comparative percentages of correct responses on each item within the three literacy dimensions. Evidence presented strongly contradicts the prevailing views. On some of the literacy items, the prisoner samples actually performed better than the national survey counterparts. Generally, prisoners did as well as their national survey counterparts; findings indicated serious literacy problems that require an educational response, which is also true of the general community. Percentage differences between male and female prisoners appeared very small. (Appendices itemize correct responses and present literacy sample items. A list of 24 references is included.) (NLA)



THE ILLITERACY MYTH

A COMPARATIVE STUDY OF PRISONER LITERACY ABILITIES

Stephen Black
Rosemary Rouse
Rosie Wickert

Acknowledgements

We wish to thank the Commonwealth Department of Employment, Education and Training for their financial assistance for this project under the National Policy on Languages. Similarly we thank the New South Wales Department of Corrective Services for providing additional funding to facilitate the progress of the project.

We would also like to thank a number of organisations and individuals for their particular support and efforts which made this project possible. They are:

- the Superintendents of both Silverwater and Mulawa prisons for permitting and supporting the research, with the inevitable disruption to prison routines that it caused;

- the interviewers, most of whom were part time teachers who worked in Mulawa, and who at times endured interviewing conditions that were far from ideal;

- AGB Research, and in particular Lorna Hall, for the scoring and collation of the results of the research;

- Magnhild Nordland for her proofreading skills;

- Simon Eyland and colleagues in the Research and Statistics Division of the NSW Department of Corrective Services for reading through earlier drafts and providing advice on a number of points;

- and finally, the two hundred prisoners who were the subjects of this research, and who almost without exception cooperated fully with the research team.

Faculty of Adult Education, University of Technology, Sydney. July 1990.

INTRODUCTION

Illiterate prisoners: The popular perception

Few people would challenge the view that many prisoners are illiterate. It's a perception fuelled constantly in the media and to a large extent by the prisons departments themselves. The current Minister for Corrective Services, Michael Yabsley for example, states that a "typical" prisoner is, amongst other things, "functionally illiterate" (Yabsley 1988). The Annual Report of the New South Wales Department of Corrective Services stated in 1984 that 30% of prisoners are "virtually illiterate" (Annual Report 1984). And NSW prison educators report that illiteracy rates for prisoners are several times higher than those found in the general community (Noad & Hancock 1985). One NSW report claimed the illiteracy rate was 7 to 8 times higher for prisoners (Dodd 1980). Overseas, and especially in North America, we read of prisoner illiteracy rates as high as 40, 50 and even over 60% (Bell 1979, 1984; Ryan 1982).

Not only is illiteracy seen to be a feature of the prisoner population, but commonly it is suggested that illiteracy has a significant role in *causing* criminal activity. Kozol (1985) for example, in a major United States study of illiteracy wrote:

While criminal conviction of illiterate men and women cannot be identified exclusively with inability to read and write, the fact that 60% of prison inmates cannot read above the grade school level surely provides some indication of one major reason for their criminal activity. (Kozol, 1985, p.13)

In Australia recently John Dawkins, Federal Minister for Employment, Education and Training, inferred, as many people do, that there is some causal relationship between illiteracy and crime, just as there is assumed to be a causal relationship between illiteracy and unemployment:

Illiteracy .. is directly associated with lack of employment, low incomes and poor self esteem. We know that illiteracy rates are above average amongst prisoners and those on unemployment benefits. (Dawkins, 1989)

However, the high rate of illiteracy for prisoners and the belief that this rate is several times greater than in the adult general community remains largely untested as there has been no major study of the literacy abilities of prisoners in Australia. A number of small studies have been conducted in individual prisons in different states (see Bates & Nunn 1988; Black 1989a; Brennan & Brennan 1984) which certainly indicate that many prisoners have literacy problems, but these studies do not lend themselves to comparisons with the literacy abilities of adults in the general community. In fact until recently only one major study had been undertaken specifically surveying the literacy abilities of Australian adults (Goyen 1977), and this survey excluded "institutionalised" adults. Our difficulty therefore is that it is an assumption only that the literacy abilities of prisoners are so poor and a lot worse than those found in the adult general community. At best, researchers can only infer from details of the educational levels of prisoners their likely low literacy abilities. For example, the annual National Prison Census (Walker & Biles 1987) indicates the generally depressed educational levels of prisoners in Australia, but it is still a quantum leap to assume large percentages of these prisoners are thus "illiterate". For NSW we don't even have details of the educational levels of prisoners as, unlike in other states, no data are available. In fact it is necessary to go back to 1971 to obtain census data on the educational levels of prisoners in NSW, and clearly prisoner populations may have changed over these past couple of decades. Thus in this state, prison educators are forced to rely on small scale and often unrepresentative prisoner studies which have included an "educational" element, in order to develop an educational data base on prisoners and to possibly infer low prisoner literacy abilities (see Gorta 1982; Panaretos & Gorta 1987; Travis & Porritt 1987).

Recently it has actually been suggested that prisoners may not be the atypical group they are usually made out to be in relation to their literacy abilities. It was suggested that to function effectively in prison with literacy-related tasks, low-literate prisoners are often required to seek assistance from other prisoners or prison staff. Prisoners are also subject to

departmental "assessments" of various kinds (e.g. interviews with psychologists, welfare staff, probation and parole and education officers). Combined, these two aspects of prison life tend to highlight literacy problems that would remain largely hidden in the general community, and this serves to reinforce further the popular perception amongst prison workers and others of an illiterate prisoner population (Black 1989b).

A National Policy on Languages prisoner literacy survey

The above introductory paragraphs set the context within which this study came about; the fact that so little is known about the literacy or indeed the educational levels of prisoners, and yet powerful assumptions are made about these levels. It was time to test these assumptions.

The two-year Adult Literacy Action Campaign (ALAC 1988-89) which resulted from the National Policy on Languages (Lo Bianco 1987), provided funding for the first national survey of adult literacy abilities undertaken in Australia. Called *No Single Measure*, the survey was conducted by Rosie Wickert at the Institute of Technical and Adult Teacher Education (now Faculty of Adult Education, University of Technology, Sydney). The development of an appropriate survey instrument to identify the incidence of literacy difficulties in the general adult population was seen also to be appropriate for use with a prisoner population, and thus the opportunity was provided for the first time of comparing the literacy abilities of these two populations. Deliberately therefore, our prisoner survey dovetails the national adult literacy survey. The same interview questionnaire, data collection and scoring developed for the national survey are used also for this prisoner survey, and Rosie Wickert is a joint author of this study.

Initially this project, also funded under the National Policy on Languages, was to be undertaken jointly by the Prisoner Education National Network (PENN), which is a sub-branch of the Australian Association of Adult and Community Education, and ITATE. However, a third stakeholder, Programmes Division of the NSW Department of Corrective Services, was added following the participation of one of their staff members in the research project and their provision of additional funding to facilitate the progress of the project.

AIMS AND METHOD

Project aims

As indicated, the main aim of this study is ***to compare the literacy abilities of prisoners to those found in the adult general population.*** Additionally though, the survey was seen to be an opportune time ***to compare male and female prisoner literacy abilities.*** The possible differences between male and female prisoners appears to have been a relatively minor issue in prison education to date, but nevertheless it has often been claimed by education staff and others who work in prisons, that there may be differences which might for example, justify different educational provision. Certainly there have been calls for women prisoners generally to be considered in isolation from male prisoners (see Hatty 1984). As yet claims of differences in literacy abilities between male and female prisoners have not been tested.

No single measure: A relative concept of literacy

The title and the concept of literacy adopted for the national survey of adult literacy is based on a major United States study of the literacy profiles of America's young adults (Kirsch & Jungeblut 1986). This study makes the point that: "There is *no single measure* or specific point that separates the 'literate' from the 'illiterate'." Literacy is seen as a relative concept. As Wickert (1989, p.4) puts it, it is relative "to social and cultural norms, to time and place, to purpose and intent." It is not simply the acquisition of a single set of reading and writing skills that makes people literate, or its corollary, illiterate, though commonly it has been presented as such. To arbitrarily determine some cut-off point along a continuum of reading and writing skills and to then label those beneath this point as "illiterate" is, in Wickert's words, "socially unjust and inaccurate" (Wickert 1989, p.5)

This prisoner survey follows the relative concept of literacy made clear in the Wickert and Kirsch and Jungeblut surveys. It accepts that literacy has to be seen "as the application of specific skills for specific purposes in specific contexts." Thus there will be no figures on the "illiteracy" rates of prisoners emanating from this study. Our intention is to compare the *literacy abilities* (as opposed to the *illiteracy rates*) of prisoners to those found in the adult general community. This will be based not on an isolated reading and writing "test" but on their ability to undertake a range of literacy-related tasks. A "profile" of the literacy abilities of prisoners will be drawn up based on this range of tasks, and then comparisons will be made between this profile and those found in the adult general population, and between male and female prisoners.

The research approach

Kirsch and Jungeblut in their analysis of the uses of literacy tasks, concluded that these tasks could be identified in three main dimensions:

Document literacy: the ability to use and identify information located in documents such as forms and memos.

Prose literacy: the ability to read and interpret prose in newspaper articles and books.

Quantitative literacy: the ability to apply numerical operations to information contained in print material, such as menus.

These dimensions were used in the Wickert study and form the basis of the analysis of literacy abilities in this prisoner study.

The Kirsch and Jungeblut study also used Item Response Theory to place literacy tasks from within the above dimensions on scales of difficulty from 0 to 500. This in turn was adopted by Wickert in her study, though with some reservations as the scales were not grounded in Australian contexts. For each of the dimensions of literacy tasks there is a range from what has been described as "rudimentary" level (150 or below) through to "advanced" (350 or below - see Table 1).

TABLE 1 Literacy Dimensions

Document literacy ability (scale 0-500)*	
ADVANCED	
Paint chart - identify product	350
ADEPT	
Yellow pages - heading	310
Yellow pages - phone number	300
Paint chart B	290
Deposit slip -cash amount	285
Pay - identify gross pay to date	257
Bill - write out cheque	255
INTERMEDIATE	
Map - identify street intersection	250
Deposit slip - cheque amount	240
Dosage instructions	225
Deposit slip - enter date	220
BASIC	
Job application form	200
Learner's permit - expiry date	160
RUDIMENTARY	
Bankcard - sign name	110
Prose literacy abilities	
ADVANCED	
Technology article: 3 match feature	400
ADEPT	
Technology article: oral interpretation of issues	340
INTERMEDIATE	
Swimmer article: one feature match with distractor	250
BASIC	
Swimmer article: one feature match	200
Quantitative literacy abilities	
ADVANCED	
Menu - 10% surcharge	355
ADEPT	
Airline schedule A	340
Menu - change from $5	335
INTERMEDIATE	
Airline schedule B	300
Account record book	290
BASIC	
Deposit slip	230

* position of item on scale based on U.S analysis

Wickert makes the point that the application of terms such as "rudimentary" or "advanced" is purely pragmatic, and that further work is needed to establish a statistical basis for the use of these categories. Nevertheless, for the comparative purposes of this study, the same terms will be used.

Research method and implementation in NSW prisons

It was planned to interview 100 female prisoners randomly selected from Mulawa Training and Detention Centre, and 100 male prisoners randomly selected from the Silverwater Work Release Centre. Originally the focus for the male prisoner survey was to have been the Central Industrial Prison (CIP), the state's main reception prison, but Silverwater was decided upon due to the easier access to prisoners, being a low security prison. Fifty interviews were in fact conducted at the CIP, but they are not included in this current paper because the sample was considered rather small.

The Mulawa and Silverwater interview samples were selected using computer-generated random sampling numbers based on the current prisoner population on file at the respective prisons. Response rates were exceptionally high for the interview samples (Mulawa 95%; Silverwater 97%). It needs to be pointed out that prisoners who participated in this survey could qualify for educational remission if they weren't already receiving it. Undoubtedly this provided a major incentive to participate for many prisoners. However, it needs also to be recognised that the selected interview sample were all approached individually by one of the researchers or education staff and the confidentiality of the respondents was made clear. It was also explained that it was not a *departmental* survey as such, but one to be used by and for education in prison. Thus, using the credibility education has in the prison system, an additional influencing factor may have been at work which resulted in the high response rate.

All the interviewers undertook a half day training session conducted by Rosie Wickert in order to ensure uniformity of interview style and comparability with the national survey. Both Mulawa and Silverwater interviews were conducted by the same group of interviewers over a period of about three weeks in June 1989. Each interview took on average one hour. The interview questionnaire was identical to the national survey other than one or two questions on current employment status which weren't considered appropriate for prisoners.

The interview questionnaire comprised two main parts. The first part related to questions about the background of respondents. They were asked for example, basic demographic questions about their age, country of birth, years of schooling, and also their views on their schooling experience and other factors which might have an influence on their literacy abilities. In the second part of the interview respondents were asked to undertake a series of literacy and numeracy related tasks. These included all the *document, prose and quantitative items* outlined in Table 1. In this paper the focus will be on the findings of this second part of the questionnaire, the results of the literacy task items. Analysis of background factors and how they relate to the results of the literacy task items will be undertaken in a follow-up study.

Generalisations and comparative considerations

It needs to be considered at this stage how representative the two prisoner interview samples were of NSW prisoners at the time of the survey. Given that Mulawa is the main women's prison in the state covering all security classifications, and the sample of 95 represented close to 40% of the total female prisoner population in NSW (based on 1988 census figures - see Eyland 1990), and was randomly selected, it can reasonably be assumed to be highly representative of female prisoners in NSW. The randomly selected Silverwater sample on the other hand differs in that it represents low security male prisoners only. Through the classification process low security prisoners are considered more proven and trusted, and they may not be representative of the male prisoner population generally, which includes maximum and medium security prisoners. This qualification therefore needs to be borne in mind in making generalisations about the findings in relation to male prisoners.

A number of issues also need to be considered in making comparisons between the literacy abilities of prisoner and non-prisoner populations as undertaken in this study. We are for example: comparing interview samples of different sizes i.e. close to a hundred each in the prison samples compared to 1500 in the national sample; comparing two quite specific and one general population i.e. two prisons compared to a national sample of all states except the Northern Territory; and also comparing prisoner and national samples that were selected differently i.e. random numbering in the prison samples and a multi-stage stratified area selection method devised by AGB McNair in the national survey. The national survey required interviewers to obtain a respondent sample that reflected the age, gender and populations of different area types (e.g. different states and major urban, urban and rural areas) of the 1989 Australian population estimates. Whilst the prisoner samples could also claim (though with the qualification mentioned above) to provide a reasonable representation of the NSW prisoner population, to compare the overall sets of figures for these two populations may be a little misleading given some of the differences between the general adult population and prisoners. Mainly here we refer to age differences. It is well known that prisoners tend to be younger adults, whereas the adult population generally is more spread across the age ranges. There would for example, be few prisoners above the age of 55, and yet in the national sample interviewers specifically sought equal representation of this age group with the under 35 and the 35-54 age group. Furthermore from previous adult literacy research (e.g. Goyen 1977) and from Wickert's survey, we know that older adults tend to be less literate than younger adults. Thus a comparison between a younger prison population and a more evenly spread adult population comprising many in the older categories would probably result in an inflated picture of the literacy abilities of prisoners. Due to these factors we have presented, in addition to results for the total prisoner samples, a breakdown of results for two younger age group categories, 18-24 and 25-34. We believe a more appropriate comparison can be obtained through comparing like age groups in these two age group populations (in fact according to the NSW 1988 prison census figures (Eyland 1990), 73% of male and 74% of female prisoners were found in the 18 to ? age category, and in our Silverwater and Mulawa interview samples the figures were 71% and 86% respectively).

However, a point which emanates from comparing like age groups in this study is the relatively smaller sample numbers we are looking at which reduces the reliability of the data. The 18 to 24 age group for example, comprises 24 Silverwater and 30 Mulawa prisoners and the 25 to 34 age group comprises 45 and 52 prisoners respectively at the two prisons.

There is also a gender issue. Should male prisoners be compared with male adults in the general community and similarly, female prisoners with female adults in the general community? Given that Wickert's national survey data revealed few major differences between males and females we decided it would be appropriate to compare male and female prisoners with Wickert's overall figures for the adult population, with no gender distinctions being made. In specific instances where gender differences are likely to play a role, separate sets of figures showing results for males and females will be presented.

Finally, it needs to be indicated that the comparative data displayed in the following figures and tables are based on the percentages of those respondents *who attempted the item*. Wickert (1989, p.8) makes the point that "it is unreasonable to assume that not attempting an item means that respondents would have got that item wrong if they had attempted it." On average Wickert found that the percentages correct for those who attempted the item were on average about eight percentage points higher than figures for the total sample which includes those who didn't attempt the item.

FINDINGS

Initially we will outline comparative data based on mean scores over all items in each of the three literacy dimensions. This will provide a comparative overview but will have little significance in identifying in any detail differences between the samples. Of much greater significance are the figures which follow showing the comparative percentages of correct responses on *each item* within the three literacy dimensions. A full set of the percentages of correct responses across all items are shown in Appendix 1).

The mean differences

Figures 1, 2 and 3 show the mean percentage scores correct for our three comparative interview samples. Figures are shown for the complete samples and also for the 18-24 and 25-34 year age groups on each of the three literacy dimensions.

FIGURE 1 Mean Percentage Correct on Document Literacy Items

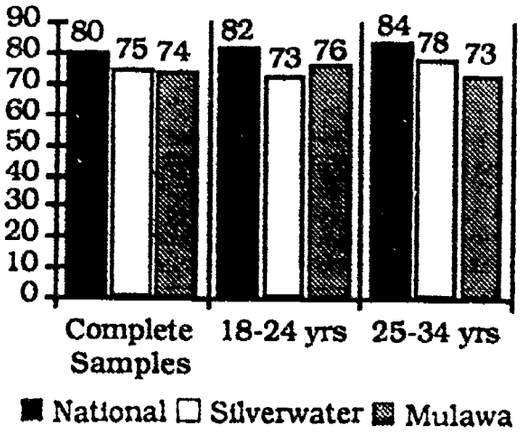


FIGURE 2 Mean Percentage Correct on Prose Literacy Items

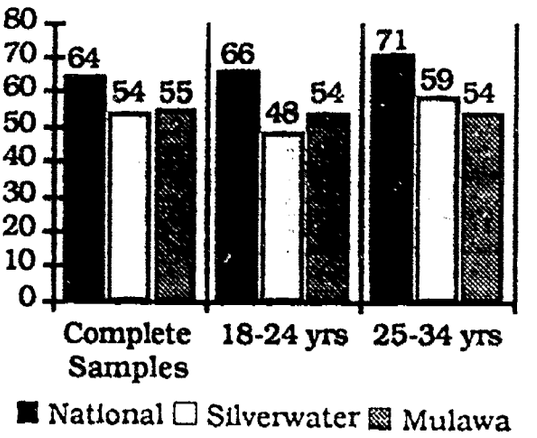
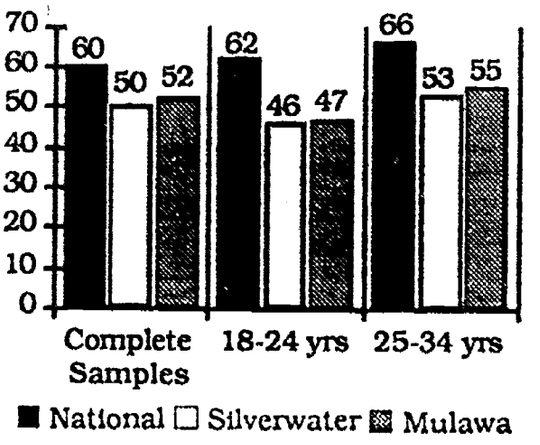


FIGURE 3 Mean Percentage Correct on Quantitative Literacy Items



These figures tell us little other than that the prisoner samples on average did perform less well than the national adult sample on all three literacy dimensions, and that the differences are greater for the prose and quantitative literacy dimensions. The national survey figures indicate slightly higher percentages correct for the two younger age groups than for the total sample, reflecting the influence of older people in the total sample who performed less well. The same trend however is not apparent in the prisoner samples, but then there were relatively few older sample members to have an influence here. On document items generally, 6 to 11% fewer prisoners could undertake the items successfully compared to national survey respondents. On the prose and quantitative items the figures show 12 to

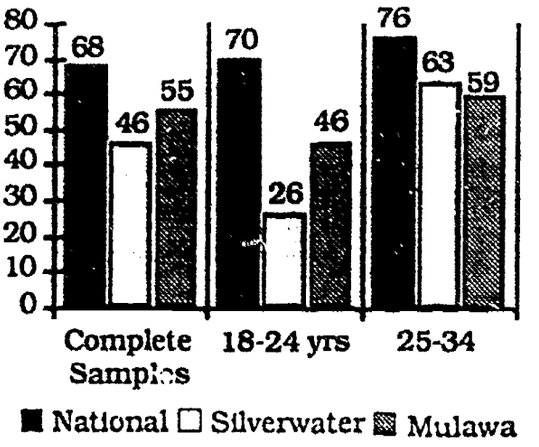
18% and 10 to 16% fewer prisoners respectively were successful on these literacy dimensions. Differences between the Silverwater and Mulawa samples are quite small, varying from 1 to 6% at the most. Although clearly these figures indicate the prisoner samples performed on average less well than the national sample, it would not merit the claims of prisoners being several times less literate than the general community as was indicated at the beginning of this study. Generally, the 25 to 34 age group performed better than the 18 to 24 age group for all three interview samples. However, it needs to be remembered that a wide range of literacy items were included in the interviews: 14 document, 4 prose and 6 quantitative items. It will be far more rewarding to analyse differences in individual items within the different literacy dimensions rather than the overall mean scores shown above.

Document literacy

Table 1 indicated the range of document items within the five levels of difficulty. Wickert, as already indicated, expressed some reservations about their use for her survey, but nevertheless found greater justification for them based on the subsequent close correspondence found between her survey results and the American ones. In her survey only two items so scaled differed in level of difficulty between the two populations; the job application form and the dosage instructions on a pharmaceutical package, and for these a number of explanations involving ages, cultural differences and differences in the items themselves could possibly explain the discrepancy.

For our prisoner study, for the one rudimentary level item, signing your name on a bankcard, almost 100% of the three samples were correct. Similarly with one of the basic items, identifying the expiry date on a driver's licence, there were few problems, though the Mulawa sample were slightly down (89% and 92% for the 18-24 and 25-34 age groups respectively were correct on this item). The job application form however, indicated significant variations (see Figure 4).

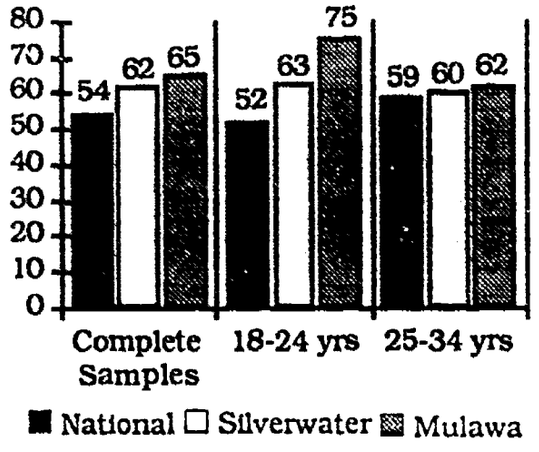
FIGURE 4 Percentage Correct on Job Form



Respondents were asked to fill out some details on a job seeker form including date of birth, country of birth, dependants, current training (if any), education/training and previous jobs (only one was required to be listed, or if none, this was to be stated). The results for the two prisoner samples in the 18-24 age group are quite astonishing in view of the mean document item differences indicated earlier. Only slightly over one in four of the Silverwater and less than half of the Mulawa prisoners could correctly undertake this item compared to 70% of the national sample. The 25 to 34 age group however, performed a lot better, indicating, not surprisingly, that correctly undertaking this item seems to improve with age and likely job seeking experience. Even so, this older prisoner age group fell 13 to 17% below their national survey counterparts.

On so-called intermediate level document items there are also some wide variations. Entering the date and a cheque amount on a deposit slip presented little difficulty for the prisoner samples (though 12% fewer of the Mulawa 18-24 year old prisoners could undertake this correctly compared to the national 18-24 sample). Locating a street intersection on a map similarly caused little difficulty. But the quite remarkable differences occur in the percentage of correct responses to identifying the dosage instructions on a pharmaceutical packet (see figure 5)

FIGURE 5 Percentage Correct on Dosage Instructions

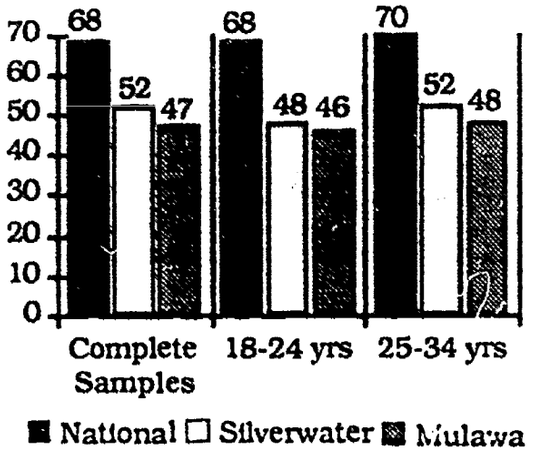


Respondents were asked to look at the packet (an authentic packet), and on the dosage instructions circle how much should be given to an eight year-old child at any one time (see Appendix 2 for a copy of the dosage instructions). In the complete samples and in both age groups the percentages correct for prisoners are better than those found in the national survey, and female prisoners performed better than male prisoners. The 18-24 age group displays a complete reversal of the trend in other document items. Twenty-three per cent more of the female 18-24 prisoners, compared to their national survey counterparts could successfully undertake this item. Whilst statistical aberrations based on the small samples may account for some of this variance, we might also speculate, as in the results on the job seeker form, the greater influence of experience in undertaking this type of task. The high extent to which young prisoners are on medication and have an involvement with drugs may be reflected in the above figures. With increasing age the trend seems to even out, though the national survey respondents still performed below those of both prisoner samples. Interestingly, data from Wickert's survey indicate that, as with the prisoner sample, women do better than men on this item (58% of women compared to 49% of men), indicating possibly the influence of stereotyped sex roles.

For higher order document items (adept and advanced) differences in the prisoner and national population figures were often not extensive, though the prisoner figures were all lower. There were few differences in the ability to locate the correct headings or locate a correct telephone number in the yellow pages, or identify gross pay to date on a pay slip (except that 16% fewer of the Silverwater 18-24 year old prisoners could locate information in the yellow pages or the pay slip compared to national survey respondents).

Writing out a cheque for the minimum payment for a bill though was found to be quite a challenge to the prisoner samples, who performed consistently poorer than the national sample to the extent of about 20% (see figure 6). Fifty per cent or less of the prisoner samples were able to undertake this task correctly.

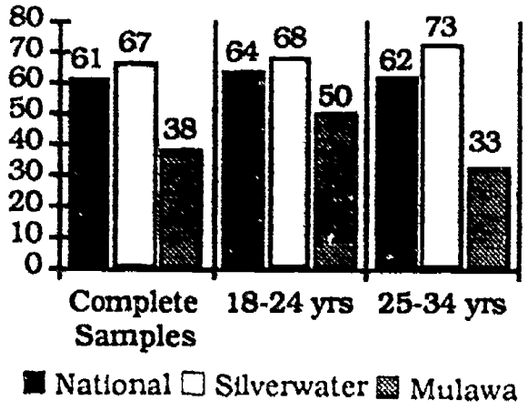
FIGURE 6 Percentage Correct on Writing a Cheque



Literacy skills associated with identifying information from a paint chart provided some interesting findings, and indicated, as with the dosage instructions, a likely gender-based influence. Respondents were required to consult a paint chart to see which product was most appropriate for a particular use (see Appendix 3). On this item the Silverwater prisoners performed better than the national sample, and the Mulawa prisoners performed least well (see Figure 7). Variations were most marked in the 25-34 year age group, and would suggest male prisoners have had far more experience in using paint charts than female prisoners. On further analysis of Wickert's national survey data we find that 9% more males than females were

able to successfully undertake this item (i.e. 65% compared to 56%). The findings for this current study show also that male prisoners performed better than males generally in the national survey.

FIGURE 7 Percentage Correct on Paint Chart - Identifying a Product



Prose literacy

Four prose items were looked at representing different levels of difficulty (refer to Table 1). At a basic level the interview sample were asked to identify one feature of a newspaper article (see Appendix 4). Overall only a slightly smaller percentage of prisoners were able to correctly undertake this item compared to the national sample, but as the prose items increased in difficulty, the differences increased. At the adept and advanced levels the ability of prisoners to correctly undertake these items tailed off badly, though the point needs to be made that the national survey sample respondents had great difficulty also with these items (see Figures 8 and 9). Respondents were asked to read a technology article and to first underline a key meaning sentence, and secondly, to explain the essential issues of the article to the interviewer (see Appendix 5 for details).

FIGURE 8 Percentage Correct on Technology Article (Adept Level)

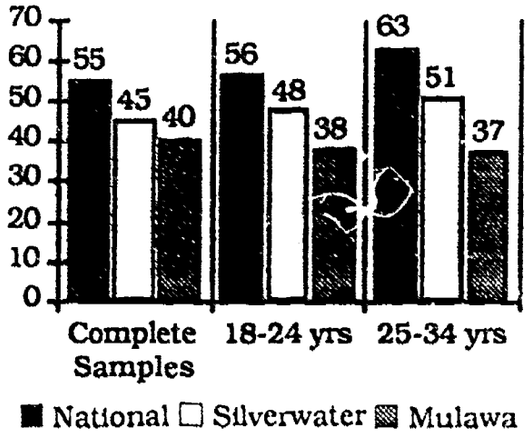
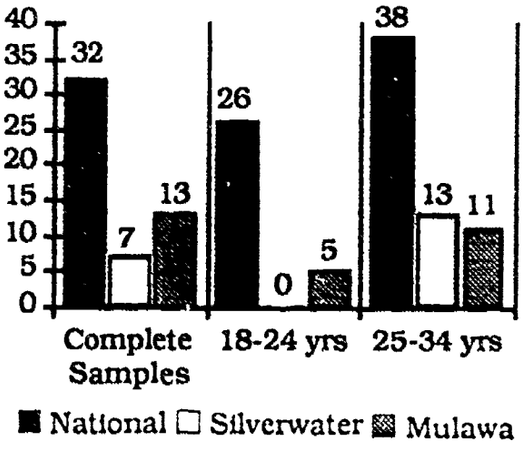


FIGURE 9 Percentage Correct on Technology Article B (Advanced)



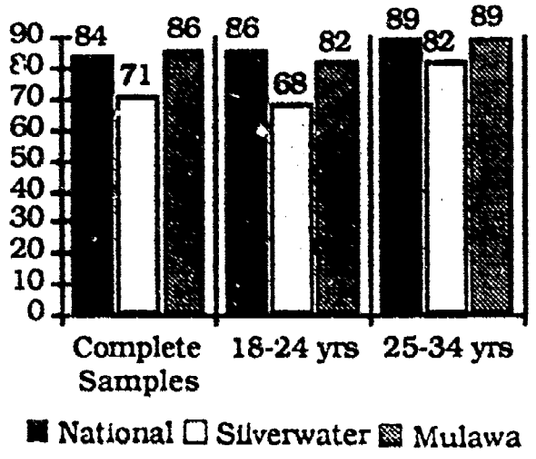
In terms of correctly identifying a key sentence in the prose article, the percentage of prisoners with correct responses was lower in all samples, and in the case of the Mulawa 25-34 year age group, 26% lower. In the advanced prose item though, differences were even more marked, with very few prisoners able to undertake this item correctly. No Silverwater prisoner in the 18-24 year age group was able to correctly undertake it. Clearly, on the basis of these figures, prisoners have great difficulty with more advanced prose items.

Quantitative literacy

Successful performance on the quantitative literacy scale requires "the use of mathematical operations such as addition, subtraction, multiplication and division - either singly or in combination - to solve (numerical) problems that are embedded in varying degrees in printed material." (Kirsch & Jungeblut cited in Wickert 1989).

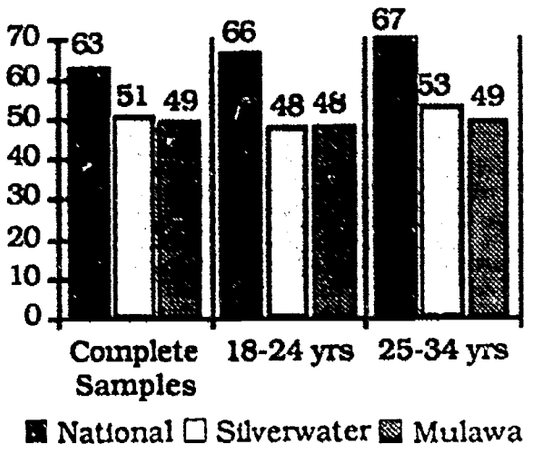
At a basic level respondents were asked to total entries on a bank deposit slip. On this item the percentage of Mulawa prisoners with correct responses was as high as the national sample, though figures for the Silverwater samples were consistently lower (Figure 10).

FIGURE 10 Percentage Correct on Deposit Slip (Total)



However, the percentage of prisoners from both samples who could keep a running total in a bank account book (an intermediate level item), was significantly lower, and in the 18-24 year age group, nearly 20% lower (see Figure 11).

FIGURE 11 Percentage Correct on Account Record Book



Quite significant differences also were apparent in other quantitative literacy items, with the prisoner samples usually performing less well. This was apparent in the ability to calculate airline schedule information and to calculate a percentage surcharge on the cost of a meal based on menu information (see figures 12 and 13. For details of these interview questions see Appendix 6 and 7). On these items the the percentage of Mulawa prisoners with correct responses was generally greater than those for the Silverwater prisoners.

FIGURE 12 Percentage Correct on Airline Schedule B (Intermediate Level)

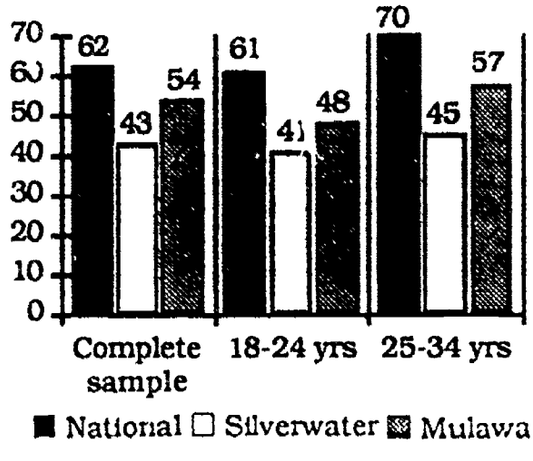
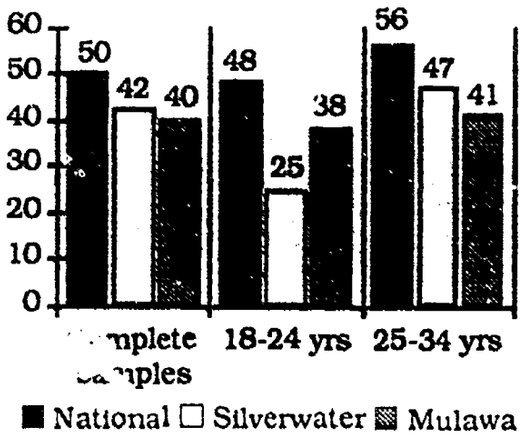
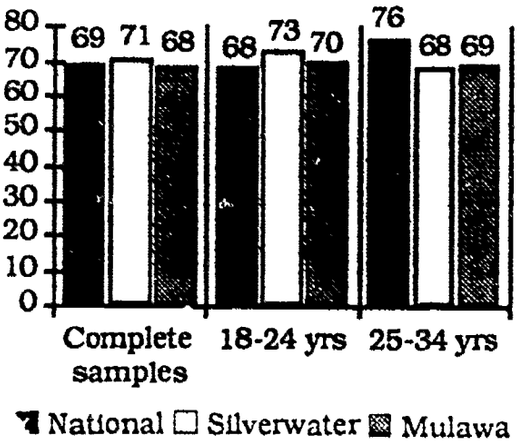


FIGURE 13 Percentage Correct on Menu - 10% Surcharge



Surprisingly, in view of the above findings, the percentage of correct responses for prisoners on determining from a menu the correct change from $5 for a meal was at least as good as (and in some cases slightly better than) those for the national sample (see Figure 14).

FIGURE 14 Percentage Correct on Menu - Change from $5



DISCUSSION AND IMPLICATIONS

The illiteracy myth

We began this paper by outlining the prevailing popular views on the literacy abilities (or more precisely - the illiteracy rates) of prisoners, and how these compare with those found in the general adult population. At the conclusion of this paper it is clear that evidence has been presented which strongly contradicts the prevailing views. This study, the first serious attempt in Australia to look in some depth at the literacy abilities of prisoners, has made false the claim that many prisoners are illiterate or that their literacy abilities are to any great degree different from those found in the general adult community. Moreover, on some of the literacy items looked at in this study the prisoner samples actually performed better than the national survey sample. We found for example, that a higher percentage of prisoners could understand the instructions on a pharmaceutical package, understand a paint chart (male prisoners only), add up totals on a bank deposit slip (female prisoners overall), and calculate change based on menu charges (female prisoners 18-24 years of age). These were exceptions of course, and generally prisoners did less well than their national survey counterparts, and in some cases they performed a good deal worse, but they are cited here to illustrate the point that the popular notion of a largely illiterate prisoner population is a stereotyped image which hopefully can now be broken down. It also calls into question those assumptions made about a causal relationship existing between low literacy levels and criminal activity.

It is however, easy to see how those who work in prisons have in the past believed, and will probably continue to believe, that a large percentage of the prisoner population are illiterate. A fairly cursory look at the literacy tasks prisoners are frequently required to undertake shows that many relate to form filling (e.g. for appeals/legal matters, at initial reception to prison, and at interviews with various prison personnel) and reading and writing prose tasks (e.g. in correspondence with family and friends on the outside and those involved in applications and requests to the Superintendent). As

indicated by the results of the job seeker item, many prisoners seem to have difficulty in filling in forms to do with their personal background. And although Wickert's survey instrument did not focus specifically on writing tasks, we might assume that, given the difficulty many prisoners have in reading and understanding more advanced prose items, they will also have difficulty in expressing themselves effectively both in their personal correspondence and in written requests. For example, arguing cogently in writing why a prisoner feels he/she is worthy of parole or release, a task which is invariably required of prisoners towards the end of their sentence, may present difficulties. In the above situations many prisoners either will perform badly at these tasks or will require assistance, both of which will tend to reinforce in prison workers the view that many prisoners are illiterate.

Male and female prisoners compared

Overall, the percentage differences between male and female prisoners appeared relatively small. Certainly the mean figures for the three literacy dimensions indicated no more than a couple of percentage points difference. On individual items though, there were some interesting differences. A higher percentage of female prisoners were able to complete job application forms (though not in the 25-34 year age group), understand dosage instructions on a pharmaceutical package (especially in the 18-24 year age group), use airline schedule information and numerical figures on a bank deposit slip. By the same token, fewer female prisoners were able to use a paint chart to identify a product. As indicated before, sex roles probably played a role in the dosage instructions and paint chart items, though the dosage instructions item may also have been influenced by drug usage.

It may be inappropriate to read too much into these gender differences due to the small sample sizes, especially in the two age categories, which may account for much of the variance. There appears actually to be some contradictions in the findings which might best be explained by the small sample sizes. For example, a higher percentage of male prisoners were able to correctly undertake the technology article, and yet the reverse trend was found with the advanced prose item using the same technology article. There are slightly different skills involved in the two items but nevertheless some consistency in the findings might have been expected. Similarly, we find a higher percentage of male prisoners could keep a running total in an account book, yet a higher percentage of female prisoners could total a deposit slip. The findings overall though do not provide any clear differences between male or female prisoners which would indicate different educational needs or justify different educational provision.

Implications for prisoner education programmes

Though prisoners should no longer be considered illiterate, and relatively speaking they have been found not to have literacy abilities much different from those found in the general adult population, care needs to be taken not to give the impression that all is well on the prisoner literacy front. Far from it in fact. This study has indicated major literacy problems for prisoners in much the same way as Wickert has drawn attention to the problems of adults in the general community. Wickert showed surprise for example, at the poor performance of adults generally on quantitative items, stating that they presented a major problem needing "urgent attention" (Wickert & Black 1990, p.26). Attention was also drawn to the inability of many adults in the general community to identify issues and critically read prose material in newspapers. As our findings have shown, overall it is in the prose and quantitative literacy dimensions that the prisoner samples performed least well relative to the national sample, and therefore the comments Wickert made in relation to adults generally apply more so for prisoners. There can be little comfort for example, in the finding that only half of the prisoner samples could keep a running total in a bank account book and very few prisoners (only 7% and 13% overall of the Silverwater and Mulawa samples) could cope with more advanced prose passages. And on document items only half of the prisoner samples could fill in a job seeker form or write a cheque to pay a bill. These findings indicate serious literacy problems which require an

educational response.

Early in our research we were alerted to the fear expressed by some prison education staff that survey findings which refuted high prisoner illiteracy rates might jeopardise continued funding for literacy programmes, traditionally the mainstay of prison education programmes. In some respects belief in a large number of illiterate prisoners has provided the "raison d'etre" for education programmes in prisons. However, we believe this fear is unfounded. What we have provided is the first detailed comparative look at prisoner literacy abilities in Australia, and whilst the overall finding of the study has been to show that prisoners do not lag that far behind the general adult population, in no way does this diminish the need for literacy education for prisoners. As the examples highlighted in the previous paragraph have demonstrated, any policy maker who looks beyond the title of this research study will find no less a justification for literacy programmes in prisons than in the past.

Additionally these survey findings may give greater direction to some prison education programmes. The generally poor showing on quantitative literacy items for example, would indicate the need for greater focus on numeracy-related programmes in addition to the usual reading and writing focus. Programmes which include basic job seeking skills might also be considered, especially for younger prisoners (only 26% of the Silverwater 18-24 year old sample were able to complete a job seeker form successfully). And if prisoners are to function effectively with prose items, an essential pre-requisite to success in most training and further education programmes, then there should be greater focus also on developing more critical reading and comprehension skills. There is currently in literacy education popular use of the term "active" literacy to enable greater participation in society. To focus just on "basic" literacy skills is not enough.

An appropriate literacy concept

Before concluding we make the additional point that our findings clearly validate the concept of literacy applied in this study. Our prisoner samples performed at different levels across the whole range of literacy items used. Literacy abilities were to a large extent seen to be related to needs in specific contexts, and prior experience. Results on the dosage instructions and paint chart items are particularly interesting examples of this. We have provided a profile of prisoner literacy abilities, showing their strengths and weaknesses on particular literacy items. The use of any single literacy item or a very narrow range of items to assess the literacy abilities of prisoners or any general adult population, would provide only a small part of the broader, more accurate picture. To focus on a single or narrow range of literacy items by which to differentiate the literate from the "illiterate" would be quite inappropriate in the light of these findings.

The next stage

This paper had only two main aims: to compare prisoner literacy abilities with those found in the general adult community, and to compare male and female prisoner literacy abilities. However, the data generated in the interviews with the prisoner samples have the potential to tell us a lot more. In this paper we haven't attempted to look in any depth for explanations for the findings. For example, we haven't considered to what extent the findings relate to cultural factors, and in particular, to non-English speaking backgrounds. We haven't yet looked at childhood and family-related aspects, and the early schooling experiences of prisoners and how these factors may help to explain the findings. These extensive demographic and educational data requires analysis to reveal a lot more about the needs and characteristics of prisoners, and will be outlined in later publications.

This research also should be seen as only the beginning of research into aspects of prisoner literacy abilities. The survey needs to be duplicated in other areas with other prisoner samples. As stated in an earlier section, the male prisoner sample in this study were all low security prisoners. Would the findings be similar for a maximum security prison in NSW? And how would prisoner populations in other states and also overseas compare with the findings

presented here? The survey instrument would appear to be quite appropriate for comparisons with other populations as Wickert demonstrated with some international comparisons with the earlier United States survey.

APPENDIX 1

TABLE 2 PERCENTAGE OF CORRECT RESPONSES ON ALL LITERACY ITEMS

	NATIONAL SAMPLE			SILVERWATER SAMPLE			MULAWA SAMPLE		
	Total	18-24	25-34	Total	18-24	25-34	Total	18-24	25-34
N=	1496	180	224	97	24	45	95	30	52
DOCUMENT LITERACY ITEMS									
MEAN DOCUMENT ITEMS	80	82	84	75	73	78	74	76	73
BANKCARD	98	98	98	100	100	100	98	93	100
DRIVER'S LICENCE	96	97	97	94	96	93	90	89	92
DOSAGE INSTRUCTIONS	54	52	59	62	63	60	65	75	62
YELLOW PAGES (A)	75	77	84	67	61	68	71	75	71
YELLOW PAGES (B)	92	91	92	87	82	93	85	86	86
DEPOSIT (A)	99	100	99	97	100	96	97	95	98
DEPOSIT (B)	86	85	83	69	73	68	75	72	76
DEPOSIT (C)	96	98	97	88	94	94	93	86	95
JOB SEEKER FORM	68	70	76	46	26	63	55	46	59
PAY SLIP	84	91	86	73	74	77	76	82	76
PAINT CHART (A)	61	64	62	67	68	73	38	50	33
PAINT CHART (B)	74	79	78	69	73	66	59	52	61
MAP INTERSECTION	96	97	99	95	100	98	93	96	90
BILL AND CHEQUE	68	68	70	52	48	52	47	46	48
PROSE LITERACY ITEMS									
MEAN PROSE ITEMS	64	66	71	54	48	59	55	54	54
SWIMMER (A)	84	86	89	75	76	77	72	70	72
SWIMMER (B)	93	98	97	90	87	93	91	100	88
TECHNOLOGY ARTICLE (A)	55	56	63	45	48	51	40	38	37
TECHNOLOGY ARTICLE (B)	32	26	38	7	0	13	13	5	11
QUANTITATIVE LITERACY ITEMS									
MEAN QUANTITATIVE ITEMS	60	62	66	50	46	53	52	47	55
DEPOSIT SLIP	84	86	89	71	68	82	86	82	89
AIRLINES SCHEDULE (A)	56	56	59	32	30	35	39	26	46
AIRLINES SCHEDULE (B)	62	61	70	43	41	45	54	48	57
ACCOUNT RECORD BOOK	63	66	67	51	48	53	49	48	49
MENU (A)	69	68	76	71	73	68	68	70	69
MENU (B)	50	48	56	42	25	47	40	38	41

APPENDIX 2 DOSAGE INSTRUCTIONS

Q.3 HAND RESPONDENT THE PHARMACEUTICAL PACKAGE.

READ OUT

Look at the packet. Circle how much should be given to an eight year-old child at any one time.

For the relief of pain and discomfort in rheumatic, muscular and neuralgic conditions, headache and colds and following dental procedures. Reduces fever.

DOSAGE: Adults: one to two tablets (maximum 8 tablets per day). **Children** (7-12 years): Half to one tablet (maximum 4 tablets per day). Take with water every 3 or 4 hours if necessary.

CAUTION: THIS PREPARATION IS FOR THE RELIEF OF MINOR AND TEMPORARY AILMENTS AND SHOULD BE USED STRICTLY AS DIRECTED. PROLONGED USE WITHOUT MEDICAL SUPERVISION COULD BE HARMFUL.

STORE BELOW 30° C

USE ONLY IF FOIL SEAL OVER TABLET IS INTACT

*Complete packet was used in survey

APPENDIX 3 PAINT CHART ITEMS

AGB:McNAIR

PAINT CHART

1. You need to prepare some new galvanised iron on the exterior of your home before painting it. You want to buy Berger paint. Consult the chart to see which product you should buy.

---

2. You have some Berger Rapidcoat left over from another job. Can you use it to paint a new interior brick wall?

CHOOSE FROM THIS CHART THE PAINT WHICH BEST SUITS YOUR NEEDS

CLEAN UP WITH

- Water
- Turps

PREPARATORY PRODUCTS CODE

- A — BERGER PINK & WHITE PRIMER
- B — BERGER ALL PURPOSE UNDERCOAT
- C — BERGER DUSSEAL
- D — BERGER STOP RUST Metal Primer
- E — BERGER STOP RUST Aluminium Primer
- F — BERGER RAPIDCOAT
- G — BERGER STOP RUST Galvanised Iron Primer

INTERIOR

CHOOSE YOUR FINISHING COAT

	Kitchens (Walls & Ceilings)	Laundries (Walls & Ceilings)	Bathrooms (Walls & Ceilings)	All other rooms (Walls & Ceilings)	Woodwork Doors & Windows	All other Woodwork
[redacted]	✔			✔		
[redacted]	✔	✔		✔		✔
[redacted]				✔ (ceilings only)		
FULL GLOSS Enamel	✔	✔	✔	✔	✔	✔
SEMI GLOSS Enamel	✔	✔	✔	✔	✔	✔

CHOOSE THE RIGHT SURFACE PREPARATION

	Timber Walls	Doors Windows, Architraves	Wallboard Plasterboard	Brick A/C Sheets, Cement Render	Hardboard (Primed or Unprimed)	Wrought Iron	Galvanised Iron	Aluminium
[redacted]	B or F		F	F	B	D	G	E
[redacted]	B or F		F	F	B	D	G	E
[redacted]			F	F	B			
FULL GLOSS Enamel	B	B	B or F	C	B	D	G	E
SEMI GLOSS Enamel	B	B	B or F	C	B	D	G	E

EXTERIOR

CHOOSE YOUR FINISHING COAT

	Doors, Windows Architraves	Woodwork	All other surfaces	Walls, Eaves, Gutters
[redacted]		✔	✔	✔
[redacted]		✔	✔	✔
[redacted]		✔	✔	✔
FULL GLOSS Enamel	✔	✔	✔	✔

CHOOSE THE RIGHT SURFACE PREPARATION

	Masonry, Cement Render & Fibro	Timber	New Timber	Timber Doors & Windows	Galvanised Iron Old & Dull	Galvanised Iron Shiny & New	Wrought Iron	Aluminium
[redacted]	No Primer Necessary	No Primer Necessary	No Primer Necessary		No Primer Necessary	G	D	E
[redacted]	No Primer Necessary	No Primer Necessary	Pink Primer recommended when using white or pale colours		No Primer Necessary	G	D	E
[redacted]	No Primer Necessary	No Primer Necessary	Pink Primer recommended when using white or pale colours		No Primer Necessary	G	D	E
FULL GLOSS Enamel	C then B or F	A then B	A then B	A then B	G	G	D	E

PREVIOUSLY PAINTED SURFACES
Clean surface thoroughly, sandpaper rough edges smooth, spot prime bare areas with appropriate primer and proceed as for new work.

SURFACE PREPARATION
One of the most important things to remember about painting is this — the better the preparation the better the job. Good preparation is essential to achieve a good finish and sealers, primers and undercoat play an important role in surface preparation. Each performs a special function.

SEALERS seal off the surface of the material to be painted, thus preventing the undercoat and finish coat from sinking into the surface.

PRIMERS provide an intimate bond with the surface to ensure greater adhesion for subsequent coats.

UNDERCOATS have filling characteristics and these provide a smooth, uniform surface for the finishing coat.

PREPARATION INFORMATION
- Ensure the surface to be painted is free from dust, dirt and grease.
- Remove loose, powdery, peeling and flaking paint prior to preparing the surface for painting.
- Sandpaper rough edges smooth before spot priming.
- Surfaces infected with mould must be thoroughly cleaned down with household bleach and then coated with BERGER ANTI-MOULD SOLUTION, reduced as directed on the bottle.
- Where powdery paint cannot be completely removed from masonry surfaces, first apply BERGER BIND-BAK.
- Always read label directions on can thoroughly before commencing to paint.
- Rust should be treated with the appropriate STOP RUST products following the directions on the label.

DECORATING HINTS
- When considering a colour scheme for your house, look at the house as a whole. Even if you are thinking of one or two rooms, work out colours which will eventually link together and not clash.
- Once you have decided on a colour from the card, check the colour chip in different lights, daylight and artificial, and next to fabrics or furniture you plan to use. Colours can change against others as the reflected colours add different shades to the original paint.
- Rooms that get a lot of use need cheerful bright colours that will reflect a happy mood in the interior.
- Rooms that are not used as often are a great place to be more adventurous. A strong colour in a dining room can be very dramatic and studies look wonderful in deep, rich colours.
- Use colour as a tool to help you with awkwardly shaped rooms. Darker ceilings lower the feeling of the room and if used in reverse a lighter colour adds height to a low ceiling.
- Be bold, think colour.
- Does the front of your house get much sun or shade, need a warm or cool colour?
- Consider the style of your house. Is it modern with strong lines, or a pretty cottage that could take pinks and brighter colours. Victorian or Federation might need classic colours. A smart streamlined look could take cool greys and clean colours. Windows and trims are only worth featuring if they are decorative and well finished. Painted the same colour, windows seem larger.
- Think how different coloured shrubs and trees will work with your new colour scheme.
- Consider how your existing roof colour works with the paint colour.
- Remember a brightly coloured front door can be a welcoming note as long as the colour works with the house.

APPENDIX 4 NEWSPAPER ARTICLE (BASIC) ITEMS

Swimmer completes Strait Marathon

SYDNEY - Self-employed business man, John Koorey set a record swim on Wednesday across the rough 25 kilometre Cook Strait between New Zealand's North and South Islands.

Koorey, 37 of Manly, New South Wales, climbed out of Cape Terawhiti at 7.00 pm. He began his arduous swim at 1.30 pm.

A spokes woman for the swimmer, Kay Barnes, said Koorey had kept up his strength with "banana sandwiches, hot chocolate, lots of water and granola bars".

Koorey had trained for the feat by swimming at least 80 kilometres a week. The Sydney native has competed as a swimmer since he was 17 and hoped to persuade Olympic authorities to add a long distance swimming event.

A charity concerned with teenage cancer patients solicited pledges for each kilometre he swam.

With this crossing, John Koorey took 69 minutes off the previous record which was set by John Coutts.

a. Underline the sentence that tells us what Mr Koorey ate during the swim

b. At what age did Koorey begin swimming competitively? _____

TECHNOLOGY CREATES THE NEED FOR NEW RULES

Science has a way of getting ahead of law and ethics. That happened dramatically in 1945 on the destructive side of life with the atomic bomb, and is now happening on life's creative side with techniques to overcome human infertility.

Most of us rejoiced with the Brown family in England when Louise, the first test-tube baby, was born six years ago. And we have marvelled at other firsts - most recently the births of healthy babies that had once been embryos frozen to await the proper moment of implantation in the mother-to-be.

It is about two such frozen embryos in Australia that a storm of legal and ethical questions arose. The embryos were destined to be implanted jn Elsa Rios, wife of Mario Rios. A previous embryo implant had been unsuccessful, and the Rioses wanted to have another chance at becoming parents. But before they had a second chance to try, the Rioses perished in an airplane crash.

What was the Australian hospital to do with the frozen embryos? Could they be implanted in someone else? There were numerous volunteers. Were the embryos somehow entitled to the Rioses' substantial estate? Or should the embryos be destroyed? The Rioses, understandably, had made no provision for the embryos' future.

The Australians set up a commission to study the matter. Last week, the commission made its report. The embryos should be thawed, the panel said, because donation of embryos to someone else would require the consent of the "producers," and no such consent had been given. The panel also held that the embryos in their present state had no life or rights and thus could be destroyed.

The commission members were conscious of treading on slippery legal and ethical grounds. Therefore, they urged that three months be allowed for public opinion to respond to the commission recommendation. Should there be an overwhelming outcry against destroying the embryos, the commission would reconsider.

Couples now enrolling in Sydney's Queen Victoria hospital for in vitro fertilization programs must specify what should be done with the embryos if something happens to them.

This assures that a situation similar to the Rioses won't recur. But what of other complex questions? In France, a woman recently had to go to court to be allowed to bear a child from her deceased husband's frozen sperm.

What if a surrogate mother here breaks her child-bearing contract and refuses to give up the infant she had promised to bear for someone else?

Our society has failed so far to come up with enforceable rules for curbing the destructive potential of atomic power. We are reaping the nightmarish harvest from that failure. The possibilities of misuse of scientists' ability to advance or retard procreation are manifold. Ethical and legal boundaries need to be set before we stray too far.

---

a. Underline the sentence which explains what the Australians did to help them decide what to do about the frozen embryos belonging to the couple killed in a plane crash.

b. The story of the Rioses shows that developments in technology can lead to issues affecting society as a whole. Can you tell the interviewer what you think these issues are? (Please tell the interviewer when you are ready to begin.)

APPENDIX 6 AIRLINE SCHEDULE ITEMS

AIR AUSTRALIA–WIDE ARE PLEASED TO ANNOUNCE NEW SCHEDULES.

FROM BRISBANE TO MELBOURNE

Flight#	Departure	Arrival
605	5.45	10.15
397	6.00	9.15
552	8.00	12.15pm
782	9.00	1.15
310	9.15	12.30
170	10.15	2.15
451	11.30	3.45
893	12.45	4.00
116	1.00	5.15
789	1.45	5.45
245	3.00	7.15

FROM SYDNEY TO MELBOURNE

Flight#	Departure	Arrival
352	6.45	8.00
198	7.15	8.30
176	7.45	9.00
544	8.15	9.30
386	9.15	10.30
904	10.15	11.30
881	11.15	12.30pm
155	12.15	1.30
254	1.15	2.30
562	2.15	3.30
781	3.15	4.30

You are responsible for organising a committee meeting. Two of the participants will be arriving from inter-state. Given the following information, use the airline schedule to decide the latest flight each person should take to arrive for the 3.00 pm meeting.
The trip from the airport to the conference centre takes 30 minutes. 45 extra minutes should be allowed for possible flight delays/ traffic hold-ups.

a. Mr Elsworth is travelling from Brisbane. He should take flight #____
b. Ms Jefferson is travelling from Sydney. She should take flight #____

APPENDIX 7 MENU ITEMS

Advertisement

BURLINGTONS

Soups - Made by our Chef Daily

Onion Soup	1.60
Soup of the day	1.60

Hot Dishes

King-burgers:
1/4 lb. of the finest Beef available, seasoned to perfection and served on a buttered bun 3.00

Chedder cheese burger	2.45
Pineapple burger	2.45
Bacon burger	2.60
Chedder cheese and bacon burger	3.00

Sandwiches

Sliced Turkey - Garnished	2.50
Turkey Salad - Garnished	2.25
Chicken Salad - Garnished	2.25
Tuna Fish Salad - Garnished	2.00
Sliced Beef Tongue - Garnished	2.50
Grilled Cheddar Cheese	1.95
BURLINGTON Special:	2.95

Tender roast beef, melted swiss cheese, home-made pickles on seeded rye. Need we say more?

Minimum charge - $2.00
Holiday surcharge - 10%

Suppose you have $5.00 to spend for lunch.

*a. If you order a Burlington Special sandwich and onion soup, how much change will you get back on a normal working day?*_____

*b. How much would the same order cost on a public holiday?*_____

REFERENCES

Annual Report (1984). Sydney: NSW Department of Corrective Services.

Bates, M. & Nunn, J. (1987) Educational survey conducted at H.M. Prison, Woodford. **Literacy Link**, 6(1), 15-17.

Bell, R. (1979). **National Evaluation Program Phase 1 Report - Correctional Education Programs for Inmates.** US Department of Justice.

Bell, R., Conrad, E. & Suppa, R. (1984). The findings of the recommendations of the national study on learning deficiences in adult inmates. **Journal of Correctional Education**, 35(4), 129-137.

Black, S. (1989a). **Low literate prisoners: Their needs and factors affecting their participation in prison literacy programmes.** MA (Hons) thesis, Sydney University.

Black, S. (1989b) Contextual issues and the functioning abilies of low literate prisoners. **Australian Journal of Adult Education**, 29(2), 8-15.

Brennan, M. & Brennan, R. (1984). **The human factor.** Wagga Wagga: Charles Sturt University.

Dawkins, J. (1989). **Fight against illiteracy means a battle against inequity.** Media Release. Canberra: DEET.

Dodd, G. (1980). **The Gapadol Test and illiteracy in prisons.** Research Notes. Sydney: NSW Department of Corrective Services.

Eyland, S. (1990). **New South Wales Prisoners 30 June 1989.** Sydney: NSW Department of Corrective Services.

Gorta, A. (1982). **Parole in NSW: The inter-related problems of education and unemployment.** Research Bulletin No.11. Sydney: NSW Department of Corrective Services.

Goyen, J. (1977). **Adult illiteracy in Sydney.** Canberra: Australian Association of Adult Education.

Hatty, S. (1984). **Women in the prison system.** Australian Institute of Criminology Seminar Proceedings No. 3 12-14 June 1984. Canberra: Australian Institute of Criminology.

Kirsch, I. & Jungeblut, A. (1986). **Literacy, profiles of America's young adults. Final report.** Princeton, New Jersey: National Assessment of Educational Progress. Education Testing Service.

Kozol, J. (1985). **Illiterate America.** New York: Anchor/Doubleday.

Lo Bianco, J. (1987). **National Policy on Languages.** Canberra: Australian Government Printing Service.

Noad, B. & Hancock, G. (1985). "Programming for prisoners in New South Wales" in Noad, B. (ed.) **Developmental programmes for prisoners.** Seminar Proceedings No.5. Canberra: Australian Institute of Criminology.

Panaretos, H. & Gorta, A. (1987). **Employment and education on release: The influence of gaol programs.** Sydney: NSW Department of Corrective Services.

Ryan, T. (1982). The individualised adult life skills system. **Journal of Correctional Education**, 33(3), 20-28.

Travis, G. & Porritt, D. (1987). **Selective data from 120 personal descriptive forms.** Sydney: NSW Department of Corrective Services.

Walker, J. & Biles, D. (1988) **Australian prisoners 1987 Results of the national prison census - June 1987.** Canberra: Australian Institute of Criminology.

Wickert, R. (1989). **No single measure: A survey of Australian adult literacy.** Canberra: Department of Employment, Education and Training.

Wickert, R. & Black, S. (1990). Reflections on the first national survey of adult literacy. **Australian Journal of Reading**, 13(1), 23-30.

Yabsley, M. (1988). Minister's address to the annual meeting of the Prisoners' Aid Association of New South Wales, **"New directions in corrections"**. Sydney, October 19, 1989.