This paper evaluates a 20-item assessment of citizenship literacy in an adult sample comprising 179 persons of English-speaking and non-English speaking background. The results indicated that the assessment was internally consistent and that as expected it distinguished English-speaking from non-English speaking participants. The pattern of answers provided an initial, albeit partial, understanding of what might constitute citizenship information but it also highlighted some limitations. The assessment failed to tap the ability levels of those with higher knowledge.

Nevertheless, the results also indicated some deficits in adult general knowledge. The potential failure rate even with a cut-off point of 60% correct was quite high. Just over one-in-five failed to pass. The results have implications for the proposed revisions to the Australian Citizenship Test.
In December 2006, the Australian Government announced a controversial intention to introduce a citizenship test. This followed the example of other citizenship testing programs in the United Kingdom, the United States and Canada. Eventually the Australian Citizenship Amendment (Citizenship Testing) Bill 2007 was introduced into Parliament in May 2007; it was passed by Parliament in September 2007 and the citizenship test was implemented in October 2007.

The Australian Citizenship Amendment (Citizenship Testing) Act 2007 No. 142, 2007 stated inter alia that a person is eligible to become an Australian citizen if the Minister is satisfied that the person:

(e) possesses a basic knowledge of the English language; and (f) has an adequate knowledge of Australia and of the responsibilities and privileges of Australian citizenship; and...

(e) and (f) are taken to be satisfied if and only if the Minister is satisfied that the person has, before making the application: (a) sat a test approved in a determination under section 23A; and (b) successfully completed that test (worked out in accordance with that determination).

The actual citizenship test is described in official documents as a computer-based, written, multiple-choice test. The Standard Test is limited to 45 minutes in duration. It is stated that the test is designed:

... to assess whether you have a basic knowledge of the English language. It is also used to test your knowledge of Australia and the responsibilities and privileges of citizenship. The test consists of 20 questions drawn at random from a pool of 200 questions. To pass the test, you must correctly answer 60 percent of the questions, including answering three questions on the responsibilities and privileges of citizenship correctly... The test includes questions about: Australia's history; Australia's geography; the Australian people; Australian values; the system of government; responsibilities and privileges of Australian citizenship (Australian Government 2007: 43).
This reflects the longstanding legislative requirement for an applicant to have an ‘adequate knowledge of Australia’ in the *Nationality and Citizenship Act 1948* (see 12(1)(e)). There has also been a requirement for English in the same Act (see 12(1)(d)).

Between 1 October 2007 and 31 March 2009, 111,005 clients sat the Australian citizenship test with 96.7 per cent passing the test on their first or subsequent attempt. On average, there were 1.2 tests administered per client (Department of Immigration and Citizenship 2009: 4).

An independent review of the Australian citizenship test was undertaken in 2008 (Australian Citizenship Test Review Committee 2008). The Citizenship Test Review Committee recommended a number of changes. The key changes that will be implemented are: (a) the test questions will be rewritten in plain English; (b) the test will not contain any mandatory questions; and (c) the current pass mark will increase from 60 per cent to 75 per cent. The new citizenship test was planned to begin in late September 2009. The intention was that the test will continue to assess whether clients possess a basic level of English, that is, having ‘a sufficient knowledge of English to be able to exist independently in the wider Australian community’ (Australian Citizenship Test Review Committee 2008: 5).

At first glance, the topic of an Australian citizenship test might seem to be parochial, practical, political and hardly of theoretical interest to adult learning. The issue, however, does have importance for the following reasons: (a) a concern about what constitutes citizenship, especially the structure of citizenship information; (b) the role of external factors such as language, years of residence, education, country of origin or general information; and (c) the psychometric properties of such an assessment and the relative difficulty of particular questions. The purpose of this paper is to evaluate some aspects of a citizenship-type assessment that is consistent with the content specified by the Australian Government. While the political
rationale and the practical implications of citizenship testing are well beyond the scope of the paper, the technical aspects of the assessment of this construct are of direct relevance to adult learning.

In the first instance, the Australian Government has made it quite explicit that the test assesses not only citizenship but also 'literacy skills'. In this sense, the assessment might be expected to distinguish between those persons whose standard of English is adequate to undertake the test and those who are not able to read the questions (for the most part, this would be those persons whose background is a language other than English). Secondly, little is known about the nature of this hypothetical latent characteristic that has been called citizenship. Aside from the proposed content of the assessment, there is no formal understanding of what might constitute a dimension of citizenship. That is, in thinking of citizenship knowledge, it might be helpful to know what aspects are easiest to acquire and which aspects are more difficult. Thirdly, although citizenship has been proposed as a desirable quality, there is absolutely no information about how it is distributed in the general population. Finally, there is no sensible starting point for an individual researcher to come to grips with the dimension of citizenship or its assessment because the details of the assessment are not public. This situation is unlike that of the United States, for instance, where the pool of questions are known in advance and the items are selected from that pool.

In the publicity preceding the Australian Citizenship test the Government, however, made available sample questions to the press to provide an indication of the likely content. These sample questions are the subject of this paper. These were administered to a heterogeneous group and the results analysed using psychometric (Rasch) item analysis. This report provides a detailed description of the citizenship dimension and its constituent parts. The analysis was conducted for an entire group as well as for those of English-speaking background and those of a non-English speaking background.
Methodology

Participants

The sample comprised 179 respondents recruited by adult education students as a sample of convenience from TAFE classes, AMES groups, friends and relatives. No claim is made that the sample is representative. It comprised 81 from an English-speaking background and 98 from a non-English speaking background. No additional demographic details were collected as anonymity and confidentiality were key aspects of the data collection because in some groups (such as small TAFE or language classes) people might be able to be identified if they indicated their age, sex and English or non-English-speaking background.

Instrument

The instrument comprised 20 multiple-choice questions that were publicised as indicative of the types of questions that would be asked. These questions are listed in Appendix A. It is recognised that these questions may or may not form part of the ultimate test, which in any case comprises 20 questions from an intended pool of some 200 questions. The Cronbach alpha internal consistency coefficient of this specific test was high (.836, N = 140) and indicated that the responses were homogeneous and the assessment was internally consistent. Of course, this is only a partial indicator of the potential reliability of the assessment results.

Procedure

Participants were asked to participate voluntarily in a study of citizenship knowledge and were provided with a sample question and instructions. They were provided with their results. Participation was voluntary and not tied to any course requirement. A few participants declined to participate but no records were maintained.
Analysis
The results were analysed using a traditional item analysis and also using Rasch analysis which allows both the difficulty of the items and the citizenship knowledge of the participants to be plotted on the same dimension.

Results
Overall results
The distribution of results from the combined sample showed that most people would have passed the 60 per cent (12 correct out of 20) required for citizenship (see Figure 1). On closer inspection and when dividing the sample into two groups—English-speaking background and non-English speaking background—there are some major differences in the pattern of scores. This is illustrated in Figure 2. As expected the overwhelming majority of the participants who were of English-speaking background (median score = 17) would have passed but, in the case of the non-English speaking background, participants the pattern of results was entirely different. Despite the fact that the majority of non-English speaking background participants would have passed, the results (median score = 13) were spread across the entire range.

![Histogram](image)

*Figure 1: Distribution of total scores on the citizenship assessment*
The average score for English-speaking participants was 16.2 (SD=3.5) whereas for non-English-speaking participants the average was 12.8 (SD=4.0). For such an assessment to be valid it would be expected to differentiate between groups. The difference in scores of the two groups in this instance was statistically significant (t(135)=-5.18, p<0.0001) and supports the validity of the assessment, irrespective of one's views about the propriety of such assessments.

![Graph of Distribution of Total Scores](image)

**Figure 2:** Distribution of total scores on the citizenship assessment for Non-English-Speaking Background (NESB) and English-Speaking Background (ESB) participants

**Analysis of individual questions**

There was a wide variation in the range of difficulty of the questions. The most difficult question for the group was: ‘Who is Australia’s head of state?’ (answered correctly by 28%) and the easiest was: ‘Where did the first European settlers to Australia come from?’
(answered correctly by 95%). The item difficulties are shown in column 2 of Table 1 (this indicates the proportion answering the question correctly). The third column indicates the relationship of each question by itself to the overall score. All questions correlated positively with the overall or total score, indicating that the questions were in line with the overall assessment results. The questions with the lowest item-total correlation appeared to be those that tapped the most or least familiar concepts and facts.

Table 1: Item statistics for the citizenship assessment

<table>
<thead>
<tr>
<th>Items</th>
<th>Proportion who answered correctly</th>
<th>Item-total point biserial correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Which colours are represented on the Australian flag?</td>
<td>.90</td>
<td>.341</td>
</tr>
<tr>
<td>2. Indigenous people have lived in Australia for ...</td>
<td>.57</td>
<td>.567</td>
</tr>
<tr>
<td>3. Australia's national flower is the ...</td>
<td>.60</td>
<td>.493</td>
</tr>
<tr>
<td>4. Which is a popular sport in Australia?</td>
<td>.90</td>
<td>.492</td>
</tr>
<tr>
<td>5. Australia's political system is a ...</td>
<td>.89</td>
<td>.424</td>
</tr>
<tr>
<td>6. The Capital of Australia is...</td>
<td>.93</td>
<td>.431</td>
</tr>
<tr>
<td>7. Which animals are on the Australian Coat of Arms?</td>
<td>.86</td>
<td>.459</td>
</tr>
<tr>
<td>8. Where did the first European settlers to Australia come from?</td>
<td>.95</td>
<td>.394</td>
</tr>
<tr>
<td>9. Who is Australia's head of state?</td>
<td>.28</td>
<td>.303</td>
</tr>
<tr>
<td>10. Who was the first Prime Minister of Australia?</td>
<td>.63</td>
<td>.571</td>
</tr>
<tr>
<td>11. What song is Australia's national anthem?</td>
<td>.85</td>
<td>.480</td>
</tr>
<tr>
<td>12. What do you call the elected head of a state government?</td>
<td>.66</td>
<td>.594</td>
</tr>
</tbody>
</table>
Item Response Analysis

A further analysis using the Rasch model was undertaken to describe the link between the construct that was being assessed and how the various items were located along the dimension of that construct. (The detailed statistics and output form the Rasch analysis are available freely from the author upon request. Separate analyses are also available for the English-speaking and non-English speaking samples.)

The item map (Figure 3) represents the ability of the group (that is, citizenship literacy) and the difficulty of the item. The left-hand side of the figure represents a chart of the ability scores of the group. It is similar to Figure 1. Each X on the chart represents around two persons. If the chart were turned on its side, it would be like a histogram of scores. The right-hand of the chart shows the location of each of the 20 items on the scale of citizenship ability. The items are represented in shorthand fashion as I1 for Item 1 and I10 for Item 10 and so on. The scale however might be unfamiliar to some readers. It varies from +5 to -5 with zero being the average level of ability and
also the average level of difficulty. Persons and items closest to +5 have the highest ability and are the most difficult, respectively. Items near -5 are the easiest and persons closest to -5 are those who are least in citizenship literacy. This is an arbitrary scale but one that is well-known. The importance of the scale is that someone who is at a particular ability level can be expected to answer all the items below his/her ability level but have difficulty with the items above his/her ability. So a person at around average or zero on the scale should be able to answer items 13, 14, 20, 7, 11, 5, 1, 4, 6 and 8; but they would have difficulty with items 12, 16, 10, 3, 18, 12, 19, 15, 17 and 9. Consideration of Figure 3 shows immediately that the items in the assessment do not tap the full range of citizenship literacy. Broadly speaking, there are many persons in the sample who were well above the difficulty level of even the hardest questions.
### HIGH ABILITY | DIFFICULT QUESTIONS

<table>
<thead>
<tr>
<th>Ability</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.0</td>
<td>Australia's head of state</td>
</tr>
<tr>
<td>4.0</td>
<td>When first European settlers arrived</td>
</tr>
<tr>
<td>3.0</td>
<td>Wars fought by Australians / Source of Australian values</td>
</tr>
<tr>
<td>2.0</td>
<td>Number of States / Length of habitation of indigenous people</td>
</tr>
<tr>
<td>1.0</td>
<td>First Prime Minister / Australia's national flower</td>
</tr>
<tr>
<td>0.0</td>
<td>Elected head of a state government / Anzac Day</td>
</tr>
<tr>
<td>-1.0</td>
<td>Federal political party in power</td>
</tr>
<tr>
<td>-2.0</td>
<td>Australian values</td>
</tr>
<tr>
<td>-3.0</td>
<td>Australia's biggest river system</td>
</tr>
<tr>
<td>-4.0</td>
<td>Animals on Coat of Arms / Australia's national anthem</td>
</tr>
<tr>
<td>-5.0</td>
<td>Democracy as Australia's political system</td>
</tr>
<tr>
<td></td>
<td>Popular sport in Australia</td>
</tr>
<tr>
<td></td>
<td>Capital of Australia</td>
</tr>
<tr>
<td></td>
<td>Origin of first European settlers</td>
</tr>
</tbody>
</table>

Each X = 2 Persons

**Figure 3:** Item-map showing ability and item locations for citizenship
Discussion and conclusions

It is impossible to assert unequivocally that this assessment confirms that someone possesses a basic knowledge of the English language and has an adequate knowledge of Australia and of the responsibilities and privileges of Australian citizenship. At best it is a partial indicator.

What can be said, however, is that a substantial proportion of this sample would not have passed the cut-off point of 60 per cent (12 correct out of 20). Around 22 per cent scored 11 or lower, and if this were to be increased to 15, then the failure rate would in all likelihood be double (approximately 44% in this sample scored 14 or lower). The effect is evident in Figure 4 which shows the cumulative proportions at each score level. Theses failure rates are far higher than those reported in the official statistics where 96.7 per cent passed the test on their first or subsequent attempt. The reasons for this difference are not clear.

![Cumulative proportion at each score level and cut-off points for passing (60% and 75%)](image)

Figure 4: Cumulative proportion at each score level and cut-off points for passing (60% and 75%)

A key issue is what constitutes citizenship in this assessment. This is shown in the structure or ordering of the items in terms of difficulty in
Figure 3. To some, this arrangement may seem a bizarre answer, but it does represent the empirical difficulty of acquiring these concepts in the community. At present, it constitutes the best operational definition of citizenship literacy that we have available. We could then say that an adult who had citizenship literacy in all probability knew that the Governor-General was Australia’s head of state, that the first European settlers arrived in 1788, that Australian soldiers fought in World War I and World War II, that the Judaeo-Christian tradition is the source of Australia’s values, that there are six states in Australia, that Indigenous people have lived in Australia for at least 40,000 years, that Edmund Barton was the first Prime Minister and that the wattle is Australia’s national flower. Some would argue that this does not represent citizenship at all, whereas others might say that this is only one component of the construct and reflects the expected information acquired through socio-cultural experiences. It is not possible to settle such an issue in this paper.

It is possible, however, to say that many adult Australians have performed poorly on this assessment of socio-cultural knowledge, irrespective of their citizenship status. This is despite the fact that it is a multiple-choice format and only requires recognition and not recall. Paradoxically, there are deficiencies in the assessment, especially in relation to the fact that the upper levels of citizenship literacy are not being assessed. Notwithstanding this limitation, there are psychometric merits in this approach, even with such a blunt 20-item test, but further refinement of the concept of citizenship is required. In addition, the development of an assessment (in whatever form it might ultimately take) will help to give an operational meaning to citizenship literacy. The educational issue now is that a substantial proportion of Australians do not even have the token knowledge that is mandated for citizenship or the linguistic competence to read and decode the questions.

References


About the author

**Dr Jim Athanasou** retired recently from the University of Technology, Sydney and is now an Adjunct Associate Professor at La Trobe University. He has continued in part-time private practice as a psychologist, specialising in adult educational and vocational assessment. He is editor of the texts, *Adult education and training* (2008) and *Adult educational psychology* (2008).

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Appendix A

1. Which colours are represented on the Australian flag?
   a. Green and yellow
   b. Red, black and yellow
   c. Blue, red and white
   d. Orange and purple

2. Indigenous people have lived in Australia for ...
   a. At least 40,000 years
   b. About 8000 years
   c. About 800 years
   d. Less than 400 years

3. Australia’s national flower is the ...
   a. Rose
   b. Wattle
   c. Kangaroo paw
   d. Banksia

4. Which is a popular sport in Australia?
   a. Ice hockey
   b. Water polo
   c. Cricket
   d. Table tennis
5. Australia's political system is a ...
   a. Parliamentary democracy
   b. Monarchy
   c. Dictatorship
   d. Socialist state

6. The Capital of Australia is...
   a. Sydney
   b. Melbourne
   c. Hobart
   d. Canberra

7. Which animals are on the Australian Coat of Arms?
   a. Wombat and echidna
   b. Kangaroo and emu
   c. Kangaroo and dingo
   d. Lion and unicorn

8. Where did the first European settlers to Australia come from?
   a. Spain
   b. France
   c. England
   d. Ireland

9. Who is Australia's head of state?
   a. Prime Minister John Howard
   b. Queen Elizabeth II
   c. Governor General Michael Jeffery
   d. Premier Steve Bracks

10. Who was the first Prime Minister of Australia?
    a. Sir Edmund Barton
    b. Sir Henry Parkes
    c. John Curtin
    d. Sir Robert Menzies

11. What song is Australia's national anthem?
    a. God Save the Queen
    b. Star Spangled Banner
    c. Advance Australia Fair
    d. Waltzing Matilda

12. What do you call the elected head of a state government?
    a. Governor
    b. Premier
    c. Mayor
    d. Prime Minister

13. Which federal political party or parties are in power?
    a. Australian Labor Party
    b. Australian Democrats and the Australian Greens
    c. National Party
    d. Liberal Party and National Party
14. Which of the following are Australian values?
   a. Men and women are equal
   b. ‘A fair go’
   c. Mateship
   d. All of the above

15. Australia’s values are based on the ...
   a. Teachings of the Koran
   b. The Judaeo-Christian tradition
   c. Catholicism
   d. Secularism

16. What does Anzac Day commemorate?
   a. The Gallipoli landing
   b. Armistice Day
   c. The Battle of the Somme
   d. Victory in the Pacific

17. In what year did the first European settlers arrive?
   a. 1801
   b. 1770
   c. 1788
   d. 1505

18. How many states are there in Australia?
   a. 5
   b. 6
   c. 7
   d. 8

19. Australian soldiers fought in ...
   a. World War I and World War II
   b. Korean War
   c. Vietnam War
   d. All of the above

20. What is Australia’s biggest river system?
   a. The Murray Darling
   b. The Murrumbidgee
   c. The Yarra
   d. The Mississippi

Answers: