

Economic Literacy: What Is It and Why Is It Important?

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Abstract

One of the core objectives of the Reserve Bank’s public education program is to improve economic literacy. While the social benefits of economic literacy are well established, defining what is meant by this term is not straightforward and has been the subject of debate over many decades. This article explores the meaning of ‘economic literacy’. To arrive at a working definition, it discusses the economic principles that should be understood for someone to be considered economically literate, along with the topics they should be familiar with and the ways of thinking that we would expect them to display. In doing so, it distinguishes between economic and financial literacy. The article concludes by posing questions for future research on how economic literacy in Australia might be measured and how it might be supported.

Introduction

The Reserve Bank, like many central banks, has a public education program designed to support economics students and educators. In Australia, economics is a subject that was once widely offered and widely chosen, but this is no longer so – a situation that has longer term implications for the economics discipline, the quality of public policymaking and economic literacy in society (Dwyer 2017; 2018). Consequently, one of the strategic aims of the Bank’s education program is to increase the size and diversity of the economics

student population. Economics is an important field of study. When someone studies economics they learn powerful concepts that help them better understand the choices involved in a multitude of personal decisions they make, as well as the economic conditions and policies that affect their lives. When many people study economics, they contribute to economic literacy in society.^[1]

The wider social benefits of citizens being economically literate have been cited by numerous commentators. An economically literate populace makes more informed economic choices and better

understands the world around them. They can contribute to the effectiveness of public policy by aligning their expectations and behaviour with it, or by influencing the actions of government and the quality of public discourse. Arguably, though, the case for economic literacy remains most powerfully expressed by the Nobel Laureate, George Stigler, who prompts us to ask why a citizen should be literate in economics rather than any other branch of knowledge. His answer is that economics is worth most people knowing something about because it, in turn, falls into these two specific classes of knowledge (Stigler 1970, p 63):

1. It is a 'means of communication among people, incorporating a basic vocabulary or logic that is so frequently encountered that knowledge should be possessed by everyone'.
2. It is a 'type of knowledge frequently needed and yet not susceptible to economic purchase from experts'.

In other words, citizens need to be able to both assess and talk about economic issues that affect them in the various economic roles they will play over their lifetime. Furthermore, these assessments and communications will need to be made frequently and without the ability to purchase advice from an expert.^[2] Stigler (1970) describes this as the need for 'do it yourself economic analysis'. He also states that this sort of economic analysis is significant because the public chooses 'to speak and vote on economic problems'.

For all these reasons, economic literacy is important. But what precisely is it? This article explores the meaning of 'economic literacy'. It seeks to express a practical working definition that is informed by the threshold concepts someone should understand, and the behaviours they should display, if they are to be considered 'economically literate'. It then poses questions for future consideration that could contribute to the project of measuring and raising economic literacy in Australia.

What is economic literacy?

Despite broad-based agreement that economic literacy is important, defining it is not

straightforward. This challenge is articulated charmingly by Wentworth:

This concept is as familiar to people in economic education as an old friend. We refer to it constantly as if we knew it well but economic literacy is a stranger. It is the golden fleece of economic education. Each person in the field goes on a quest to help find or develop the economically literate person. Unfortunately, economic literacy is a phantom and chameleon. ... There exists little common agreement over what economic literacy really is. This should be corrected. (Wentworth 1976, pp 3–4)

Hansen (1976, p 62) opines that the term 'economic literacy' crept into our vocabulary in the early 1960s following the release of a report in the United States by the National Taskforce on Economics Education (though it used the term 'economic understanding'). In addressing the school economics curriculum, this report emphasised the need for citizens to have an understanding of their economic system, as well as knowledge of the core economic tools and concepts to participate in that system. However, Hansen (1976) noted that it did not specify the precise combination of these things, or measurable levels of them, that would determine economic literacy.

So why has it been so difficult to arrive at a standard and accepted definition? Economics is a broad discipline that incorporates a wide range of concepts, the understanding of which is difficult to observe. Given the breadth of the discipline, how do we choose which particular concepts underpin economic literacy? In what context are they relevant? Should a consumer be considered economically literate based on different criteria to a business person?^[3] How do we deal with the fact that most economic concepts are underpinned by assumptions? That some economic theories can be proven wrong and all are incomplete?^[4] And what weight do we place on equipping someone to understand the economic decisions that affect them personally and those that affect others? Put another way, how do we choose and weight the understanding of concepts and principles that

equip individuals with skills for their personal lives versus those that support effective citizenry?^[5] After all, people vote on economic problems (not mathematical ones). Finally, a particular challenge to an agreed definition of economic literacy is that much of economics is not value free and 'these values are not easily separated from a discussion about established principles or ideas', such that 'one person's economics is another one's manifesto' (Fettig 1999).^[6]

As we consider the challenge of defining economic literacy, it is important to consider the meaning of 'literacy' itself. In essence, and as discussed in the literature, literacy is the development of knowledge and skills that can be applied outside the classroom to analyse, reason and communicate about a subject in *different contexts and throughout one's lifetime*.^[7] This suggests that a workable definition of economic literacy must also embody these ideas.

High-level definitions

We begin our discussion with some high-level definitions of economic literacy. While previous Bank work has acknowledged the lack of an agreed definition of economic literacy, it has described it as encompassing:

... an ability to apply economics skills and frameworks to explain or debate much of the world in which we live – from understanding opportunity costs in our personal decisions, through to forming a view about the efficacy of economic policies. (Livermore and Major 2021, p 1)

While implied, this does not speak directly to the ability of someone to apply these skills and frameworks in different contexts and over time. Michael Salemi, who has written extensively on economics education and literacy, makes this ability explicit. He provides a simple and useful definition that is more closely aligned with the requirements indicated by education authorities:

Students attain economic literacy if they can apply basic economic concepts years later, in situations relevant to their lives and different

from those encountered in the classroom. (Salemi 2005, p 47)

This is satisfactory as an overarching definition that can be understood in relation to descriptions of literacy in other branches of knowledge (especially language and mathematics). But, for it to be operationalised, we still must know *which* basic concepts should be understood and how they should be applied. Here there is much debate, as reflected in the rival views of those who design (and challenge) curricula, both at school and university. This debate has informed criteria-based definitions of economic literacy.

Criteria-based definitions

Wentworth (1976) argues that we need, in the first instance, to have a clear idea about what distinguishes an economically literate person from an illiterate one. We need clear criteria on such things as the minimum level of economic knowledge we expect them to have, the behaviours we expect them to display, and the specific analytical skills they should be able to utilise along with their economic knowledge. In this way, we obtain an insight into what that person 'is like' and what they should be able 'to do'. Importantly, a criteria-based approach to defining economic literacy allows for testing instruments to be developed and observable outcomes that can be measured. And when something is measurable, we can be confident when it has been achieved. As Wentworth (1976) says, this approach provides something that a teacher or researcher can 'get a grip on' to identify those who are economically literate.

All designers of an economics curriculum do so with the deliberate intent of helping students achieve a desired level of economic knowledge and skill for a given stage of learning. In the Australian context, the Australian Curriculum Assessment and Reporting Authority (ACARA) does this for students from Years 5 to 10,^[8] while state education authorities do so for senior high school. ACARA's work on shaping the national curriculum on economics (and business) was founded in the importance of students being able to understand

the many 'dimensions of economics and business that infuse their daily life' (ACARA 2012, p 6). However, while notions of economic literacy are implicit in these curricula, there is no explicit minimum set of learning outcomes that, if achieved, would make a student economically literate.^[9]

The CEE Voluntary National Content Standards in Economics

Arguably, the most comprehensive assessment of what should be understood by economics students in order for them to be economically literate has been undertaken by the Council of Economic Education (CEE) in the United States. The CEE produces the Voluntary National Content Standards in Economics (hereafter Standards), which form a widely accepted criteria-based definition of economic literacy. The Standards were first released in 1997 and the current edition, published in 2010, reflects the work of a writing committee chaired by Alan Krueger with John Siegfried as deputy chair, based on extensive consultation.^[10] These Standards, listed in Table 1 below, specify the essential economic content an economically literate student should know and what they should be able to do with this knowledge at Grade 4, Grade 8 and

upon leaving school. The Standards are primarily conceptual and described as principles-based, though they also require students to understand aspects of the current economic system, its institutions and the impact of economic decisions on different groups in society. To be included, the committee had to deem that a concept, principle or piece of knowledge was essential for a high school graduate to understand, because it was necessary for effective citizenship, employment, further learning and for dealing with the 'ordinary business of life'.

Importantly, the Standards have observable and measurable criteria for a student's understanding and their application of this understanding (i.e. behaviours, things a student can do), allowing them to be operationalised. The Standards are the basis of a comprehensive standardised testing program of high school students in the United States that is conducted regularly by the CEE, known as the Test for Economic Literacy (TEL). The TEL has been used in a number of countries. In fact, shortly after its introduction, Australian researchers conducted the TEL for high school students in Queensland (Leitz and Kotte 2000).^[11]

Table 1: Economic Literacy Standards

CEE Voluntary National Content Standards in Economics, United States

Content Standard	Student understanding	Student application
Scarcity	Resources are limited.	Identify trade-offs from decisions.
Decision-making	Decisions require comparing costs and benefits.	Make effective decisions as consumers and citizens.
Allocation	Different methods can be used to allocate resources.	Evaluate different allocation methods comparing costs and benefits.
Incentives	People (usually) respond predictably to incentives.	Identify incentives that affect their and others' behaviour.
Trade	Voluntary exchange only occurs when all parties expect to gain.	Compare costs and benefits from restraints to trade (e.g. tariffs).
Specialisation	Individuals, regions and countries specialise according to their relative advantage and then trade with others.	Identify advantages to themselves and others from developing specialised skills.
Markets and prices	Interaction between buyers and sellers determines market prices and the allocation of scarce resources.	Identify their own market interactions. Predict how prices change in response to a shortage or surplus.
Role of prices	Prices provide signals and incentives to buyers and sellers.	Predict how changes in preferences or production technology affect prices.
Competition and	Competition among sellers (buyers) usually decreases	Explain how changes in the level of

Content Standard	Student understanding	Student application
market structure	(increases) costs and prices.	competition affect price and output levels.
Institutions	Institutions (e.g. labour unions, markets, NGOs) are created to help individuals and groups achieve their goals.	Describe roles and functions of different economic institutions.
Money and inflation	Money facilitates trade, borrowing, saving and investment. Money affects the overall price level. Inflation is an increase in the overall price level.	Explain how their lives would be harder in a world without money, or with high inflation.
Interest rates	Real interest rates rise and fall to balance overall savings and investment. This affects the allocation of resources over time.	Explain situations in which they pay or receive interest and how a change in interest rates would affect those payments.
Income	Individuals' income is determined by the market value of the resources they sell.	Predict future earnings based on current plans for education, training and career options.
Entrepreneurship	Entrepreneurs take on risks to start new businesses or introduce new innovations. This is an important source of economic growth.	Identify risks and potential returns to entrepreneurship. Understand how public policies affect innovation and growth.
Economic growth	Investment in factories, machinery and technology stimulates economic growth and raises living standards.	Predict consequences of investment decisions.
Role of government and market failure	There is an economic role for government when a policy's benefits outweigh the costs.	Identify and evaluate the payoff from government policies and how costs and benefits are distributed.
Government failure	Costs of government policies sometimes exceed their benefits.	Identify instances where the cost of government policies exceed the benefits they generate.
Economic fluctuations	Fluctuations in a nation's overall income, employment and prices are determined by the interaction of household, firm and government spending decisions. Recessions occur when overall levels of income and employment decline.	Interpret media reports about current economic conditions and how these conditions can affect decisions by households, firms and governments.
Unemployment and inflation	Unemployment and inflation imposes costs on individuals and the overall economy.	Make informed decisions by anticipating the consequences of inflation and unemployment.
Fiscal and monetary policy	Governments' budget policy and the central bank's monetary policy affect the overall levels of employment, output and prices.	Anticipate the effects of government and central bank macroeconomic policy decisions.

Source: CEE (2010)

For specialists in economics education, at least in the United States, the Standards provide a well-accepted criteria-based definition of economic literacy with many practical uses in testing, program design and evaluation. However, if we are to promote wider community discussion of economic literacy, there is value in attempting to establish a shorter, more accessible working definition. There are several ways to do this, including the following three approaches:

1. identify a small number of core 'topics' from the Standards (or otherwise), where a topic is a group of subject matter that may include

concepts, principles, facts or institutional context;

2. identify a small number of core 'principles', where a principle is a conceptual mode of reasoning or analytical framework that is enduring and can be applied even as facts about the economy change; or
3. describe the core 'behaviours' of someone who is economically literate.

Approach 1: Core topics

Hansen, Salemi and Siegfried (2002) – who were involved in the development and subsequent review of the 20 Standards – undertook the first

Table 2: Seven Core Topics in Economics

As defined by Hansen, Salemi and Siegfried (2002)

Topic	CEE Standards covered
Scarcity	Scarcity
Economic behaviour	Decision-making Incentives Specialisation Trade Role of prices
Allocation of goods and services	Allocation Markets and prices Trade
Markets	Competition and market structure Markets and prices Role of prices
Factors of production	Income Entrepreneurship Economic growth
The economy as a whole ^(a)	Money and inflation Interest rates Economic fluctuations Unemployment and inflation Fiscal and monetary policy
Government and economic institutions	Institutions Role of government and market failure Government failure Fiscal and monetary policy

(a) The authors label this topic area 'macroeconomics'.

Sources: Hansen, Salemi and Siegfried (2002, p 464); RBA

approach by grouping the Standards into seven core 'topics' and describing how students might be expected to gain mastery of them. Their short list of topics, along with each Standard it covers, is shown in Table 2. Like the Standards, the topics short-listed by Hansen *et al* embody core principles as well as economic facts and institutional arrangements.^[12]

In promoting their short list of topics, Hansen *et al* examined the teaching of economics at universities, where a key foundation course is commonly called 'Principles of Economics'. They invited others to reflect on a short list of the core *principles* of economics and the extent to which Principles of Economics courses are, in fact, focused on them.^[13] We likewise seek to find a short list of principles, the understanding of which can be used to define economic literacy.

Approach 2: Core principles

We reviewed a number of prominent foundational texts that are explicitly organised according to

principles. They are the work of economists who seek to influence how the principles of economics are understood and applied, both within economics and other fields of study. We are drawn to *Principles of Economics* by Robert Frank (one of the writers of the Standards) and Ben Bernanke (Nobel Laureate and former Federal Reserve Chair), who maintain that 'a small number of basic concepts do most of the heavy lifting in economics' (Frank and Bernanke 2007, p v). They rely on a short list of seven well-articulated core principles (Table 3) and argue that, by focusing on them 'narrowly and repeatedly', these principles can be mastered by students and their understanding of them will remain years after completion of the course. Furthermore, their students are encouraged to become 'economic naturalists' and use these core principles to explain the world around them. Hansen *et al* (2002, p 466) have stated that the approach by Frank and Bernanke (2007) comes 'closest to their vision', in terms of the number and choice of principles and the manner of teaching them.

Table 3: Seven Core Principles of Economics

As defined by Frank and Bernanke (2007)

Core principle	Author description
Scarcity	'Having more of one good thing usually means having less of another.'
Cost-benefit	'Take no action unless its marginal benefit is at least as great as its marginal cost.'
Incentives	'Cost-benefit comparisons are relevant not only for identifying the decisions that rational people should make, but also for predicting the actual decisions they do make.'
Comparative advantage	'Everyone does best when each concentrates on the activity for which he or she is relatively most productive.'
Increasing opportunity cost	'Use the resources with the lowest opportunity cost before turning to those with higher opportunity costs.'
Equilibrium	'A market in equilibrium leaves no unexploited opportunities for individuals but may not exploit all gains achievable through collective action.'
Efficiency	'Efficiency is an important social goal, because when the economic pie grows larger, everyone can have a larger slice.'

Sources: Frank and Bernanke (2007); RBA

Table 4: Four Core Principles of Economics

As defined by Stevenson and Wolfers (2020)

Principle	Author description
Cost-benefit	'Costs and benefits are the incentives that shape decisions. You should evaluate the full set of costs and benefits of any choice, and only pursue those whose benefits are at least as large as their costs.'
Opportunity cost	'The true cost of something is the next best alternative you have to give up to get it.'
Marginal principle	'Decisions about quantities are best made incrementally. You should break "how many" questions into a series of smaller, or marginal decisions, weighing marginal benefits and marginal costs.'
Interdependence	'Your best choice depends on your other choices, the choices others make, developments in other markets, and expectations about the future. When any of these factors changes, your best choice might change.'

Sources: Stevenson and Wolfers (2020); RBA

Stevenson and Wolfers (2020) go further and argue that there are only four core principles of economics that are truly foundational and can be applied to almost any economic decision – from the mundane domestic decisions of daily life to the complex decisions of public policy (Table 4). They note that '[s]uccessive cohorts of economists have transformed the field so that it has greater relevance and a closer relationship to actual human behaviour, making it more meaningful to more people' (Stevenson and Wolfers 2020, p v). To cater for this, they focus on the small number of principles that draw on human 'intuition' so that students can place themselves directly as economic actors and are equipped to 'think like an economist'.

Approach 3: Core behaviours

What then are the behaviours of someone who 'thinks like an economist'?

Wentworth (1976) provides a list of what an economically literate person should be able to do, and includes in it a list of competencies specified by Hansen (1976). Taking only those competencies that are behaviours – ways of thinking or acting – that are specific to economics, we arrive at a list of behaviours expected of an economically literate person. They should be able to:

- use the concept of opportunity cost as a criteria for economic decision-making
- recognise that every action has inherent costs and benefits

- know the criteria for evaluating economic actions and policies, and recognise the trade-offs they entail
- identify the broad outlines of the economic system and recognise the interdependencies of the system
- reach an understanding of everyday economic issues and be able to make personal judgements about these
- participate confidently in discussions of economic topics.^[14]

Wentworth (1976) and Hansen (1976) provided a foundation for others who have highlighted the additional behaviours of:

- thinking at the margin
- recognising comparative advantage.

These additional behaviours are emphasised by Siegfried *et al* (1991), Cooper (cited in Clement 2003) through to contemporary commentators like Malek (2022) as important examples of ‘thinking like an economist’.

Defining economic literacy with respect to behaviours allows us to come closer to the goal of individuals being equipped to challenge information presented to them about current affairs, public policy and the systems that influence economic outcomes – as envisioned by Rogers (2014) and Soroko (2022), and touched on by Zweig and Dawes (2000). Of course, economic literacy can only be achieved if the behaviours we consider to be innate to economics are accompanied by critical thinking, evidence-based decision-making, numeracy and skills in communication, which are intrinsic to many disciplines.

Towards a working definition

While economic topics, principles and behaviours each provide useful approaches for defining economic literacy in a practical and accessible way, they need not be mutually exclusive. For example, if an expected behaviour of an economically literate person is to reach an understanding of everyday economic issues and make judgements about them, they must also be familiar with key economic topics and some specific principles of economics.

As such, an effective definition will likely include aspects of all three approaches.

Let’s revisit our high-level definition of economic literacy and see if by embedding some criteria, we can give it practical form. Informed by our discussion so far, we propose the following definition.

Proposed working definition of economic literacy

Someone attains economic literacy if, years after they have been taught, they can apply the four essential principles of economics in situations relevant to their lives and different from those encountered in the classroom. They will use these principles as the basis of economic analysis and decision-making, and they will understand the basic aspects of seven core economic topics that explain the economic system in which they participate.

The four essential principles of economics are: the cost-benefit principle; the opportunity cost principle; the marginal principle; and the interdependence principle.

The seven core topics of economics are: scarcity; economic behaviour; the ways in which goods and services are allocated; the structure and operation of markets; the use of factors of production; core macroeconomic variables and features of a business cycle; and the role of government and economic institutions in influencing economic outcomes.

We chose the four economic principles nominated by Stevenson and Wolfers (2020) because they prepare the student for life, whereas more comprehensive groupings of principles go beyond this to also equip a student for further study in economics (or the application of economics to other fields of study).

We chose the seven topics of Hansen *et al* (2002) because they give appropriate emphasis to scarcity as the problem that economics is ultimately trying to solve, the ways in which economic agents

interact with each other in their attempts to solve it, the nature of an economy and the factors that influence economic outcomes and material wellbeing. They also align with the CEE Standards – a widely accepted criteria-based definition of economic literacy with observable and measurable criteria.

As with any definition or short list of what is ‘core’, elements are subjective. But the approach here is to invite others in the field to articulate the notion of economic literacy – something that has long been seen as an important problem for the profession to solve.

What is the difference between economic and financial literacy?

In popular parlance, economic and financial literacy are often used interchangeably – reflective of the misperception of many non-economists that economics is largely about ‘money and share markets’. But even in professional and academic literature, the distinction between the two is not always clear. So it is helpful to clarify the relationship.

In contrast to economic literacy, the meaning of ‘financial literacy’ is little contested, the study of it is more mature and there are agencies devoted to measuring and achieving it. In a widely accepted international standard, financial literacy is defined as:

A combination of awareness, knowledge, skill, attitude and behaviour necessary to make sound financial decisions and ultimately achieve individual financial wellbeing. (OECD 2018)

Furthermore, the OECD’s International Network on Financial Education has a toolkit for measuring financial literacy and supporting financial education across countries. Relatedly, there is extensive quantitative analysis of financial literacy and its determinants.^[15] In jurisdictions where attempts to improve financial literacy are more mature, the concept has evolved into ‘financial capability’, which includes more emphasis on positive financial behaviours. In Australia, the Treasury is responsible for the National Strategy on Financial Capability and

the Australian Securities and Investments Commission (ASIC) is responsible for provision of the services and tools associated with its implementation.^[16] For recent research on financial literacy in Australia, see Preston (2020) and Preston and Wright (2019).

The meaning of financial literacy is clear, as are the consequences of not having it. In fact, raising financial literacy is a policy imperative of many countries. Without financial literacy, individuals are unable to manage their money wisely and are vulnerable to forces that reduce their financial security. This matters from a social welfare perspective. And as noted in earlier Bank work, it also matters for ‘... the promotion of a more resilient financial system and, ultimately, to the more efficient allocation of resources within the real economy’ (Hall 2008). So financial literacy has a relationship with economics. Reflecting this, it is an ongoing focus area for many central banks, with some devoting significant resources to supporting financial literacy (Bowman 2022).

But there is a key difference between economic and financial literacy. Financial literacy is focused on the capability of someone to understand their own situation. Economic literacy is focused on the capability of someone to understand their own situation, its broader economic context and thereby the situation of others. For example, while a financially literate person would understand what an interest rate is and what it means for their personal finances, an economically literate person would also understand why an interest rate has been changed and how this change will affect the broader economy. Consequently, there is a sense in which financial literacy is nested within economic literacy.^[17]

Where to next?

This article has explored what is meant by the term ‘economic literacy’ and why it is important. In doing so, we have perhaps raised more questions than we have answered. While we have proposed an option, the definition of economic literacy is subjective, and not settled. We invite alternative views.

Even with an agreed-upon definition, how do we measure economic literacy? This is an important area for future research. Measurement is crucial to understanding the state of economic literacy in Australia, as well as how it may change over time or respond to measures aimed at improving it. Objective measurement criteria need to be developed, and applied consistently across populations and through time. But how can we measure a phenomenon like economic literacy that is 'lifelong' in nature, and relevant in a diverse range of settings in individuals' lives? What are the benefits and drawbacks of different measurement options, such as standardised tests or surveying individuals about their own sense of capability or engagement with economics?^[18] How might self-reported levels of economic literacy differ from actual literacy?

And where do we begin to approach the difficult task of raising economic literacy in Australia (assuming it is needed)? What sort of tools and

interventions in the classroom and beyond will be most effective? How would we determine whether they were having an impact? What lessons can we take from attempts to improve economic literacy in other jurisdictions? And what can we learn from those who have been working on improving financial literacy, where ideas and educational practices are more mature?

As Stevenson and Wolfers (2020) say, 'every decision is an economic decision'. Consequently, we need to do more as a profession to help people make them. The Reserve Bank is committed to understanding more about economic literacy and helping to raise economic literacy in Australia. The Bank's public education program, with a strategic aim of increasing the size and diversity of the economics student population, is just one important channel for this. We hope that this article provokes discussion and a wider body of work in the field of economic literacy. ✎

Endnotes

- [*] Madeleine McCowage is the current manager of the Bank's education program and Jacqui Dwyer is its founder and Head of Information Department. The authors wish to thank Keaton Jenner, a former Bank employee and member of the education team for his earlier contribution to reviewing the literature and internal debate. The authors are also grateful for comments by Professor Alison Preston of the University of Western Australia, Leonora Risse of RMIT and Mary Bennett of the University of Tasmania.
- [1] While people can acquire economic literacy outside the education system, it is most readily acquired through formal study, which is the focus of this article.
- [2] This may be because it is not feasible for an ordinary citizen to purchase expert economic advice, or because understanding the economic issue at hand requires an appreciation of social goals that is beyond the scope of an economic expert's technical knowledge (Stigler 1970, p 63).
- [3] A question asked by Wentworth (1976).
- [4] Something asked by Stigler (1970).
- [5] Early work on economic literacy was particularly focused on this distinction. See, for example, discussion in Wentworth (1976) and Hansen (1976).
- [6] This theme emerged at a symposium on economic literacy held by the Federal Reserve of Minneapolis.
- [7] See OECD (2021, p 18) for a discussion of literacy in general. See ACARA (2022) for definitions of literacy as applied to language and numeracy in the Australian school curriculum.
- [8] Specifically, ACARA develops the national curriculum for students from their foundation year (Kindergarten) to Year 10, with economic and business concepts introduced from Year 5 onwards, as part of humanities and social sciences. However, there is variation among the states in their implementation of the national curriculum.
- [9] This is in contrast to the requirements for financial literacy, which in the national curriculum and various state curricula are explicitly defined.
- [10] For the standards for Kindergarten to Year 12, see CEE (2010).
- [11] Where overlap between the Queensland syllabus and Standards could be found.
- [12] Hansen (1998, p 152) discusses the Standards as a principles-based framework and compares this with the different approaches taken by various disciplines to support progression in knowledge and understanding.
- [13] This challenge triggered a robust debate about the issue at an American Economic Association meeting, as summarised by Robert Lucas in his panel discussion (Lucas 2002).

- [14] In fact, Wentworth (1976) states that an economically literate person should 'enjoy' participating in such discussions.
- [15] For an international comparison, see Japelli (2010).
- [16] See Treasury (2022), as well as the ASIC and Moneysmart websites.
- [17] Others will have a different view. For example, Sawatzki *et al* (2022) consider 'economics + maths = financial capability', implying that financial literacy is not nested within economic literacy.
- [18] An example of the latter option conducted in the United Kingdom is the ING-Economics Network Survey of Public Understanding of Economic (ING and The Economics Network 2019).

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