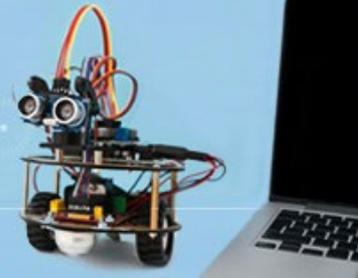




COMPUTER EDUCATION IN AUSTRALIAN SCHOOLS SURVEY 2020



Rationale

Background

As Australia's peak body for the ICT profession, the mission of the Australian Computer Society (ACS) is to grow the ICT profession so that Australia is not constrained by a lack of skilled workers. As highlighted in Australia's Digital Pulse 2019, Australian businesses need access to a sustainable, high-quality supply of ICT skills to drive innovation and economic growth. Currently, there are fewer than 6,000 domestic ICT graduates a year yet demand for ICT workers is expected to grow by almost 100,000 by 2024.

This shortage of IT professionals and digitally capable workers is partly being addressed by increased migration and re-skilling of the workforce. However Australian schools are a key domestic pipeline for future ICT workers and so our education system has a critical role to play in developing Australia's ICT talent. This is particularly so in the changing world of COVID-19, highlighting the need for Australia to be less reliant on expertise from overseas.

Developing Australia's future workforce requires schools to cultivate digital capabilities but Australian schools have seen a drop students' interest in technical subjects and a decline in the performance of students in STEM subjects over the last decade (ACS Digital Pulse, 2018). Further, this decrease has continued into the VET sector with falling domestic enrolments in ICT courses (ACS Digital Pulse, 2019).

Although there is a range of information available regarding the performance of students in 'Technologies' and 'STEM' subjects, there is no comprehensive study of the current state of Digital Technologies and IT education and teaching across Australian schools.

A significant issue for the development of policy proposals in this area is the lack of useful data about what is happening with the teaching of ICT/ Digital Technologies subjects in schools. Available research and information provide general agreement on what the key issues are, however, where they lie, and their magnitude is not fully defined and understood. Without this information, strategies and funding models to lift the performance of Australian school students in Digital Technologies and IT will at best be minimally effective and at worst, fail to change Australia's falling performance in this area.

The Survey

The survey was drafted by the [ACS ICT Educators Committee](#), reviewed by specialist staff within ACS and had input from the [Australian Council for Computers in Education](#) (ACCE). The survey does not collect information on or from individual students, or identifiable information on teachers. By necessity, it is comprehensive, including around 50 questions covering 5 key areas:

- General information (student/teacher population, years taught at the school etc)
- Curriculum
For example, understanding Digital Technologies, how Digital Technologies is implemented, curriculum being taught in each year/band, subjects being delivered in Y11 – 12, assessment of Digital Technologies/ICT, time available for teaching Digital Technologies.

- **Equipment**
For example, student:computer ratio; devices provided or BYOD, what kind of devices are used, disruptive technologies and software available, internet performance and use of internet enabled learning, Cyber Safety program.
- **Staff and leadership**
For example, are staff teaching out of area (Digital Technologies/IT), proportion with an ICT qualification and what qualification/s, technology-related professional development available to teachers, support available to teachers to build expertise and confidence, school leadership focus on Digital Technologies, how Digital Technologies/IT teachers rate their expertise/confidence.
- **Parent/guardians**
For example, reporting to, surveying attitudes and educating parents/guardians regarding Digital Technologies /IT.

Notwithstanding the current changes to the learning environment due to COVID-19, and with permission of the Principal, one survey should be completed by each school with regard to normal school operations. It suggested that a key staff member such as a Digital Technologies Coordinator or Head Teacher in each participating school might be responsible for gathering the data to enable the completion of the online survey. Much of the information could be obtained by allocating 15-20 minutes during a staff meeting to encourage input across the entire cohort of teaching staff. PDF versions are available at the link below to facilitate this process. The online survey can then be completed by the delegated staff member.

PDF versions and links to the online survey are available at www.acs.org.au/ict-educators.html

The survey is not intended to be the only source of information to inform action and policy. Indeed, the data collected may prompt the need to seek further information in specific areas.

A summary report of the data gathered will be produced however any conclusions or recommendations will, of necessity, be dependent on the participation rate and the amount of data collected. In order to achieve maximum benefit from the survey it is hoped that schools from all States and Territories will participate, all school sectors will participate, and all school levels will participate. As such, ACS is seeking the support of Education Ministers; Primary and Secondary Principals' Associations; Catholic, Independent and Anglican Schools/Principals' Associations; the ACCE and its State/Territory affiliates; the Australian Education Union and the Independent Education Union of Australia.

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