

# **Submission in response to the Productivity Commission’s 5 Year Productivity Inquiry Interim report 5: From learning to growth**

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Thank you for this latest interim report reviewing Australia’s productivity performance and providing recommendations on productivity-enhancing reform in relation to education.

## **Author background**

Dr Ann Villiers, Australia’s only Mental Nutritionist, specialising in the sense-making process, is a career coach, writer and author. Ann is a Fellow Member of the Career Development Association of Australia (CDAA), and was awarded Life Membership in 2019 and the President’s Award for Professional Leadership in 2015.

## **Submission summary**

In exploring the value of human capital, the interim report points out that: “Education increases people’s capabilities — allowing them to do more or better work in the same time. It also makes society healthier, safer, better informed, and more civically engaged, and can foster social mobility.” (p. 1)

And: “Education is vital in developing ‘human capital’, which describes the economic and social value of a person’s skills and experience.” (p. 2)

Section 1.2 asks the question, What skills are needed for Australia’s future workforce? and briefly explores foundational skills (literacy, numeracy and digital skills), ‘soft’ skills, and skills formation. This section concludes by identifying the focus of the report, in light of previous reviews and reports, as being on quality rather than quantity:

Therefore, the report considers improvements that support:

- “schools to provide the foundational skills required to improve economic performance, including through effective teaching practices and better use of technology in the classroom (chapter 2)
- post-school education to develop the skills demanded by Australian businesses, achieved through better targeting government investment and loan arrangements, among other factors (chapter 3)
- better student outcomes in post-school education, by encouraging quality and relevant teaching and facilitating completion where it is in the best interest of students (chapter 4).” (p. 14)

My submission addresses four matters:

- The inadequacies of the section on 'soft' skills.
- Information requests 2.4, 4.3, 4.4.

#### **Recommendations for the final report:**

- The section headed 'Soft skills are critical to non-routine work' be rewritten to remove reference to 'soft' skills, and to make clear that social skills (e.g. communication and interpersonal skills) are needed in most work roles, including technical and technology-related roles. Plus, the Commission ensures that the term 'soft' skills is not used in any of the other 5-year Productivity Inquiry reports, nor in any future Productivity Commission report.
- The final report includes recognition of the importance of funding school career development practitioners to support and complement teachers and support students to build skills in understanding, identifying and applying the skills they gain during their education.
- That high quality curriculum materials for the optional curriculum Work Studies, be prepared by teachers with career development qualifications and made available Australia-wide.
- That the Commission considers recasting skills language to resolve the multiple inadequacies of how skills are currently described and classified. To resolve the technical/non-technical dilemma, the Commission could refer to:
  - occupation-specific knowledge as 'specialist occupational knowledge'
  - skill-specific knowledge as 'specialist skill knowledge'.
- That the tech sector work with VET providers to pilot a tailored, practical, context-driven training course that combines the application of specialist occupational knowledge and specialist skill knowledge (such as communication, interpersonal and problem-solving skills) to a range of practical situations, and that this pilot is rigorously evaluated.
- The final report includes recognition of the importance of funding TAFE, VET, and university-based career development practitioners to support and complement educators, and support students in forming choices, making decisions about course and career changes, and providing support during transitions.

### **1. The inadequacies of the section on 'soft' skills.**

While 'soft' skills is a term commonly used by researchers, academics and organisations (such as NCVET, WEF), this is not a sound reason to use it. Discussions about skills endeavour to classify and distinguish, often creating false binaries and misleading distinctions that do little to clarify. Skills language is not neutral. In part, the terms and phrases we use to describe skills shape how we perceive them and can implicitly authorise

views that are confusing, inaccurate and unhelpful. Terms like ‘soft’ skills have no place in quality advice.

The Interim Report’s section on ‘soft’ skills relies primarily on two references. These are limited in scope and application, ignoring the wealth of information offered by other disciplines, and confuse rather than clarify terminology.

Prada et al’s study (2019) examines two critical socio-emotional skills, leadership and communication, both of which are umbrella or meta skills, encompassing many micro skills, depending on context. The authors address the skill needs of store managers and sales assistants within a major retail firm in Latin America. They acknowledge the large differences in types of activities and tasks performed and focus on specific training needs of each group, including selling, conflict management skills and brand knowledge.

Heckman and Kautz (2012) focus on personality traits which they acknowledge are referred to by various names including ‘soft’ skills, noncognitive skills or abilities, character and socioemotional skills. To “avoid confusion” the authors use ‘traits’, ignoring the very confusion that their discussion explores. Picking one term doesn’t necessarily remove or overcome terminological confusion.

Specifically, the problems with using the term ‘soft’ skills are that it is:

- ***Imprecise***

What skills are categorised as ‘soft’ is a moveable feast, covering a diverse mix of important skills, attitudes and behaviours. Compare any skill grouping classified as ‘soft’ and you’ll find there is little consistency, other than to usually include communication and interpersonal skills. Skills chosen for such lists may be based on different rationales and selection can lack empirical validation. (See Mantione 2019, Green 2011, Oates 2002 for analyses of skill term deficiencies).

- ***Inaccurate***

Typically, ‘soft’ is used to refer to a range of social skills, such as communication and interpersonal skills, implying these skills are light-weight. Describing them as ‘non-technical’ or ‘intangible’ further implies, inaccurately, that they require little effort and no special knowledge. Communication covers a wide range of demanding skills (Villiers, 2018) essential for many occupations, including those using technology. These skills include building rapport, questioning to build understanding, influencing, negotiating, networking, persuading, coaching and mediating, all heavy-weight skills that have a huge impact in the workplace.

So-called ‘soft’ skills are falsely contrasted with equally inaccurate ‘hard’ skills on the basis that the latter are observable, learnable and measurable, qualities claimed, inaccurately, as not shared by ‘soft’ skills.

The boundaries between jobs and industries are blurring. For example, many work situations need the application of both STEM (science, technology, engineering, mathematics) and interpersonal skills. Success in a science career requires developing fruitful collaborations, cultivating friendships with colleagues, mentoring students, and effectively communicating work at conferences and seminars.

Continuing to use 'soft' skills perpetuates the false idea that there is little rigor in learning and applying emotional intelligence, persuasion, negotiation, and team leadership. It also fails to recognise that skills are inter-related and context-based. While we can theoretically distinguish cooperation from teamwork, in practice, teamwork won't happen without some cooperation.

- ***Gender-biased***

Career decision-making is a highly complex interaction of ideas and influences from multiple sources. Research confirms that children form gender-based ideas about careers early in life, and that the media feeds ideas about what work is suitable/unsuitable for women and men (Smith et al. 2012, NZ Council for Educational Research 2008, National Education Union). So-called 'soft' skills are not the preserve of girls and women. They are not female or feminine skills. Nor are they less demanding than other skills. Everyone needs to build communication and interpersonal skills, regardless of career choice.

The Smith Family pointed out in their submission (sub. 26) that “there is now strong evidence that children start to develop their career preferences in the primary years of schooling. Stereotypical views about the jobs people do, based on social background and gender, become ingrained during this time. The aspirations of children in primary school are often narrow, persistent, out-of-sync with labour market demands and influenced by the people children know”. Gender-biased skill language reinforces stereotypical views of jobs.

In her book *Power Play*, Julia Banks provides an example of how gender-biased skill language is detrimentally used. The author refers to commentary about Gail Kelly (former Westpac CEO) from analysts and fund managers along the lines of “granted she is good with the 'soft' stuff of people and culture but it's just as well she has strong bankers around her to handle the financial aspects.” ... “In modern-day leadership, these skills aren't soft. Rather, it's an imperative to value and build these skills inside organisations across any sector.”

There are alternatives to using 'soft' skills, including:

- When discussing specific skills, use specific skill words, like communication skills, problem solving skills, interpersonal skills.
- When grouping skills that relate to working with people, use social or human skills and use this term consistently.
- When discussing or referencing other reports and research on skills, avoid adopting or repeating any use of 'soft' skills. Even saying “so-called 'soft' skills” keeps the term in circulation.

### ***Recommendation for the final report:***

- The section headed 'Soft skills are critical to non-routine work' be rewritten to remove reference to 'soft' skills, and to make clear that social skills (e.g. communication and interpersonal skills) are needed in most work roles, including technical and technology-related roles. Plus, the Commission ensures that the term 'soft' skills is not used in any of the other 5-year Productivity Inquiry reports, nor in any future Productivity Commission report.

## **2. Information request 2.4: How can non-teaching tasks be better allocated to other school staff?**

Three details of the report are:

- The report recognises the need to consider the demanding role of teachers and that 'non-core teaching tasks' could be allocated to non-teaching staff.
- The report acknowledges the wider context in which teachers work: Figure 2.2 – Variation in student achievement is explained by a range of factors inside and outside of school. (p. 29)
- The report acknowledges the diversity of types of staff in schools, including specialist staff like career advisers, but focuses mainly on teaching assistants: Figure 2.4 – A greater diversity of types of staff in schools. (p. 33)

While it is understandable to consider the demanding role of teachers, a narrow contextual approach may limit options for improving productivity.

Teachers' contribution to building skills needs to consider the specialised nature of this work and that relying solely on teachers to do this work is limited and unrealistic. Career advisers specialise in critical information and skills which are additional to and complement, core foundational skills and discipline-based subject teaching.

The interim report states that: "Improving school outcomes depends on getting evidence-based practice into classrooms". (p. ix) The Smith Family's submission (sub. 26) recognises that there is a range of 'beyond school' factors that influence student outcomes and that a focus on teacher quality alone will "not make the impact on Australia's educational performance that is required". (p. 10)

Their evidence-based submission recognises that young people's capacity to engage in a 21<sup>st</sup> century economy is in part shaped by "the careers support, guidance and exposure to work they access, as they move through school and post-school" and that several reports have identified the need for change and improvement. (p. 18) The Smith Family documents (pages 12, 14, 18) the career challenges of young people, particularly those in disadvantaged schools:

- struggling to keep pace with a changing economy and labour market.
- low levels of careers knowledge.

- aspiring to jobs based on ingrained stereotypes or that may no longer be relevant or available.
- being overwhelmed by trying to choose the right course, qualification and/or institution.
- limited understanding of the types of jobs or careers which follow from the study of particular qualifications.
- being unaware that the VET sector provides training courses for nine out of 10 occupations predicted to have the greatest growth of new jobs or that employment outcomes for VET graduates are strong.

The Smith Family argues there is a need to extend quality careers support more explicitly into the primary years of schooling, as well as strengthening the number and qualifications of those providing careers support in schools. (p. 13) They also argue that young people must be able to identify their best post-school pathway and understand how to pursue it. In pursuing post-school pathways, young people need to understand the value of both VET and higher education. These are not part of a teacher's core tasks.

Teachers may have knowledge of careers related to their discipline, but not about careers that combine multiple interests, subjects and disciplines. Specialist career advisers are needed to help students identify their interests and explore interrelationships between disciplines. American career counsellor Richard Bolles, famous for his *What Color is Your Parachute?* books, gives the example in his 2012 edition, of how to explore career possibilities among three knowledge interests: psychiatry, carpentry and gardening. A psychiatrist identifies that plants are often given to catatonic patients to take care of, and a person could build the planters, thereby combining the three interests.

Some of the challenges facing teachers and parents in identifying skills and careers are the vast amount of information available, identifying credible information, and keeping up with job and skill changes. Another is that the results of many jobs are invisible once the initial work is completed. This is particularly the case with project work that brings together a range of occupations, trades, and professions at different levels of skill and seniority, to produce an outcome within a specified timeframe.

I examined four Canberra-based projects, including the enlarged Cotter Dam (to which more than 100 occupations contributed) and the construction of the National Arboretum, (Villiers, 2015) to explore the significance of interpersonal skills in technical roles and the inter-relationships between occupations.

Teamwork and interpersonal skills were essential for problem solving across occupations, particularly in the context of safety and dealing with the unexpected and the unknown. Landscape gardeners, an occupation common to several of the projects, may have had to work with plumbers, brick layers, earth workers, electricians, stonemasons, concreters, irrigators, arborists, plus government departments, suppliers, and work safety authorities. By being largely invisible to the casual eye, many careers will not be considered as options by parents and teachers, or only within a narrow perspective, potentially stereotypical.

There is no disagreement with the view that: “Students would benefit from teachers spending less time on low-value administrative tasks and more time on quality teaching” (p. x) and that “schools will need to rebalance the roles of teachers and other school staff to better use their expertise” ( p.15) So how can non-teaching tasks be better allocated to other school staff? By broadening the scope of ‘other school staff’ to include specialist career advisers and career-related teaching and support. Without this support many young people will struggle to understand, identify and apply their skills, and to learn new skills across their lifespan.

***Recommendation for the final report:***

- The final report includes recognition of the importance of funding school career development practitioners to support and complement teachers, and support students to build skills in understanding, identifying and applying the skills they gain during their education.

The report acknowledges the demanding role of teachers. What could also be considered is Hunter et al.’s recent report (2022) on improving curriculum planning which suggests ways to improve teachers’ access to high quality materials. Work Studies is an optional curriculum that focuses on career design and the world of work. To support the intent of the report, high quality curriculum materials, prepared by teachers with career development qualifications, could be made available Australia-wide.

**Recommendation for the final report:**

- That high quality curriculum materials for the optional curriculum Work Studies, be prepared by teachers with career development qualifications and made available Australia-wide.

**3. Information request 4.3: Allowing greater flexibility in VET course delivery.**

The report discusses issues associated with competency-based training meeting changing skill needs (p. 96 ff). One of these challenges concerns developing what are deemed ‘non-technical’ skills and perceived difficulties in objective and consistent assessment. This is an area ripe for changing skills language and for trialling alternative approaches to competency-based training.

Wheelahen and Moodie (2011), referenced in the report, discuss the problems with ‘generic’ skills, including communication, problem solving and social skills. They correctly point out that “communication depends heavily on subject since all skilled occupations have highly specialised language – jargon – and is also highly sensitive to context ... Solving an electrician’s problem such as calculating how many power points may be run off a cable is quite different from solving a nurse’s problem such as ensuring a patient takes their medication.” (p. 8)

The distinctions the authors draw between hairdressers and mechanics when using communication skills are somewhat inaccurate. Regardless of the occupation, the application of communication skills will depend on context and will draw on a range of domain-specific knowledge. Domain-specific knowledge is primarily used to refer to occupational 'technical' knowledge, such as that of hairdressers or car mechanics.

Recasting skill language would recognise the datedness of this approach and that there is domain-specific knowledge needed for problem solving and communication that is used in conjunction with occupational knowledge. More broadly, it would recognise that skills are interrelated, used in multiple ways, complement each other, and that many jobs are cross-disciplinary and may involve multi-disciplinary teams.

This domain dilemma can be resolved by:

- Referring to occupation-specific knowledge as 'specialist occupational knowledge'
- Referring to skill-specific knowledge as 'specialist skill knowledge'.

For example, specialist skill knowledge would recognise that using interpersonal skills draws on knowledge of people's behaviour. It would remove the use of false binaries (e.g. 'soft'/hard, technical/non-technical, specialist/non-specialist) and give recognition to the value and demands of these skills.

Take solving a customer problem in the context of three occupations:

- A hairdresser is faced with a customer who is unhappy with a hair treatment.
- A plumber, called to a home to fix a blocked toilet, is accused of walking mud across the garage floor.
- A car mechanic has identified potential future and costly problems with a car during a routine service and is explaining these to a customer.

In each of these situations the person uses their specialist occupational knowledge gained from study, on-the-job training and experience, combined with their specialist skill knowledge of social and emotional skills to assess, advise, help, and fix. Switch these people around into one of the other problem solving situations and they are unlikely to be effective because they lack the relevant specialist occupational knowledge and may or may not have developed the relevant subtleties of specialist skill knowledge and capabilities of customer service: listening, gauging emotions, explaining occupational information in an understandable way, identifying realistic options, assessing costs, negotiating an outcome, to name a few.

Buchanan et al. (2018) examined the question: Is it possible to develop general capabilities (like fundamental learning dispositions) independently of mastering a specialist discipline or domain of vocational or professional expertise?

Their conclusion is, "... the development of specialist expertise of some kind is essential for the development of more generally applicable capabilities like problem solving" (p. 31) and that "Focusing on developing general capability in the abstract is of limited utility – getting



an appropriate balance between specialised and general cognitive skills is the critical issue". (p. 32). These researchers established that "the skills needed for things like problem solving, collaboration and communication are best acquired in the context of mastering specific domains of expertise – academic and/or vocational". (p. 41)

A new approach to VET would be to revisit the skills ecosystem literature and take some capabilities that are used in tandem with each other, such as communication-interpersonal-problem solving, and have training providers and industry sectors work together to develop tailored, specialist occupational knowledge-based and specialist skill knowledge-based, context-driven training. I suggest a selection from the tech sector since human factors and dealing with people are both important.

#### **Recommendations for the final report:**

- That the Commission considers recasting skills language to resolve the multiple inadequacies of how skills are currently described and classified. To resolve the technical/non-technical dilemma, the Commission could refer to:
  - occupation-specific knowledge as 'specialist occupational knowledge'
  - skill-specific knowledge as 'specialist skill knowledge'.
- That the tech sector work with VET providers to pilot a tailored, practical, context-driven training course that combines the application of specialist occupational knowledge and specialist skill knowledge (such as communication, interpersonal and problem-solving skills) to a range of practical situations, and that this pilot is rigorously evaluated.

#### **4. Information request 4.4: Supporting completion where it improves outcomes.**

The report states that: "Education policy for equity groups aims to address two challenges to educational attainment. The first is to promote enrolment in tertiary education, and the other is to increase the likelihood that an enrolled student completes their studies." (p. 102)

In asking "What more could be done to support completion?" the report suggests there is "merit in extending measures that support retention beyond equity groups to others with elevated risk of non-completion, such as students studying part-time or online, and those with a lower ATAR or first in family to attend." The report also points out that "as the share of the population accessing tertiary education grows, effective supports will become increasingly important for a wider range of students, more of whom are less prepared, or studying part-time or online, and therefore require greater academic or other types of support to succeed". (p. 103)

The broader support strategy proposed includes informing student choice with targeted career advice and preparing and transitioning students, both roles provided by qualified career advisers. Drawing on research supporting the value of career services in student retention, a recommendation for the final report (request 4.4) should take a multi-factor

approach, as recommended in TEQSA's 2020 good practice note, including strengthening course and career advice provided by qualified career advisers.

#### **Recommendation for the final report:**

- The final report includes recognition of the importance of funding TAFE, VET, and university-based career development practitioners to support and complement educators, and support students in forming choices, making decisions about course and career changes, and providing support during transitions.

### **Two additional comments**

First, while the approach of the Productivity Commission's interim report is understandable, much of the discussion is not new and is limited in its contextual approach. As Buchanan et al. (2018) have pointed out: "The inadequacies of the 21st century skills framework – and those like it – arise from their primary object of concern: meeting the needs of the 21st century market place ..." (p. 28) "Aspirations for our young citizens to participate in the new economy need to be higher than being simply able to be highly flexible in the 21st century labour market. It also requires us to ensure that their education provides them with the skills to become flourishing and productive citizens." (p. 26)

Second, a skills-based approach to improving productivity needs to take into account that young people's career aspirations are formed by age seven and change little between age seven and eighteen. Young people's views are often gendered, may not sync with labour market demands, and are hugely influenced by people other than teachers (Walsh et al. 2021).

Further, career aspiration research suggests that the 'problem' may not lie with teaching quality. Gleeson et al.'s research (2022) found that:

"Despite the emergence of new areas of work, such as in the digital economy, the career aspirations of young people throughout the OECD have changed very little in recent decades. Our survey affirms OECD data from more than 40 countries, according to which most young people expect to work within just one of 10 popular fields by the age of 30. Nine of these are considered professions, including being a doctor, a teacher, a veterinarian or a business manager. Approximately two-thirds (65%) of young women in our study who nominated a career chose one within the 10 popular occupations. This suggests a lack of awareness of new fields of work." (p. 23)

The Commission could give consideration to improving and increasing the role of employers in working with the education sector to improve understanding of skills and fields of work. As Buchanan et al. (2018) state: "Educators should not be expected to bear an unrealistic level of responsibility for ensuring people are immediately 'employable'." (p. 24)

Teachers and parents may not notice media biases in how work is represented. For example, most media images of 'tradies' are of men on construction sites. They may also struggle to articulate subject relevance to everyday life and occupational choices, inadvertently closing off skill and work choices. Yet understanding the scope of work choices and the practical value of every subject taught is critical to helping young people make informed career choices. Specific examples illustrate these points.

Professor Jim Pratley, talking on ABC RN's *Country Breakfast* (2022) and commenting on his 2008 paper about agricultural education and careers, explained that the media mainly presents images of on-farm work, while 70-80% of jobs are in off-farm support, and research has shown that teachers and children understand agricultural jobs as working on a farm. He makes the point that industries and sectors compete for attention and the agribusiness sector lags behind in promoting career paths in agriculture.

In his paper Professor Pratley lays the responsibility for ensuring prospective students are fully informed with the industry as a whole, not with teachers. And he suggests that "There needs to be a strong, focused effort by all agricultural employers to promote agriculture and agricultural careers" (p. 40). While there have been valuable efforts in recent years to improve understanding of agricultural careers, the efforts of teachers and career advisers need to be matched with that of employers and industry bodies.

Parents and teachers may make comments about subject relevance, such as 'there's no point studying trigonometry as you'll never use it'. Yet any online search will reveal the many fields that use these calculations, including architects, surveyors, engineers, drafters and building inspectors. As a minimum, teachers must be able to demonstrate how students will use subjects both in everyday life, and what skills and jobs they support.

Young people would benefit from learning quality listening, developing curiosity, building a wonder at how things work, and learning how to get along with others, as pre-requisites for a fulfilling and productive life.

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