‘That’s not a job for a lady’: understanding the impact of gender on career exploration activities in schools

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This paper draws on a project commissioned by economic Security 4 Women (eS4W) and conducted by Women in Adult and Vocational Education (WAVE). Entitled ‘Women and girls into non-traditional occupations and industries: career exploration — options for secondary school students’, this research seeks to identify new and effective approaches to encouraging and supporting young women to pursue careers in science, technology, engineering and mathematics (STEM) and non-traditional occupations.

The patterns of participation in STEM and trades-based fields of education and training during school mirror and reinforce the highly gender-segregated nature of the Australian labour force. The foundation for transition from education and training to employment is established during school. It is during these formative years of schooling that young men and women are made aware of what is possible for them and what is not.

This paper draws on a national survey of career exploration practitioners and industry and VET stakeholders to highlight some of the challenges facing approaches to career exploration for young women and ways by which models of career exploration for young women could be strengthened. The key challenges for strengthening career exploration identified by stakeholders include: a lack of access of young women to mentors and successful role models within STEM and non-traditional occupations; training and resources to support the work of career education practitioners in schools; and the complex nature of school—industry relationships.

Introduction

Despite young Australian women outperforming their male peers in many of the key achievement indicators in secondary school, there are far fewer young women than young men entering post-school education and post-school employment in many of the in-demand and high-income fields of science, technology, engineering and mathematics (Rothman et al. 2011; Queensland Department of Education and Training 2011; OECD 2012). Young women are also much less likely than their male peers to enter employment-based training opportunities in traditional trades (Rothman et al. 2011): women comprise 31% of those with university-level STEM qualifications, compared with 12% of those with vocational-level STEM qualifications (ABS 2014a). These anomalies indicate the need for a range of interventions, including in the critical area of career exploration for girls and young women while engaged in...
compulsory education. Unfortunately, the gendered stereotypes and perceptions associated with certain career options for young women are still reinforced in schools and create barriers to widening young women’s participation in non-traditional areas. Negative experiences and/or perceptions of workplace cultures in industries and occupations with low female participation can discourage young women’s participation in associated study pathways in non-traditional careers.

Many of the gendered patterns evident in post-compulsory education and training programs are replicated in the Australian labour force. While women represent almost 46% of Australian employees (ABS 2014b), they account for a far smaller proportion of the labour force in the growth industries of construction (12%), mining (15%) and utilities (23%). In the context of the current skills shortages in Australia, this under-representation of women in these industries is not only bad for gender equality, it also undermines Australia’s economy and makes attracting and retaining underutilised sources of talent, including women, essential to economic growth and prosperity (Daley, McGannon & Ginnivan 2012). Recent figures suggest that increasing women’s employment rates could boost Australia’s GDP by 11% (Broderick 2013).

This paper draws on a recent study conducted by Women in Adult and Vocational Education Inc. (WAVE), which explored current models of career exploration and how they impacted on the related post-school outcomes for women and girls. The research also sought to identify the ways by which new models might be developed to encourage women into these subjects and careers, and in doing so drew on a survey conducted with significant stakeholders across Australia. This study contains case studies of supportive organisations working with young women, and effective models operating in the schools in STEM subjects and courses, and non-traditional occupations and industries.

What is career exploration?

Career exploration is one aspect of a rapidly growing and complex field of practice, increasing in significance globally as well as in Australia (OECD 2004a; Sultana 2008; Hansen 2006, McMahan & Haines 2006). The language used throughout career exploration policy and research varies significantly and is often contested (NZ Ministry of Education 2012; Watts 2002; Hughes et al. 2005). The Australian research literature and policy use the terms ‘career advice’, ‘career guidance’, ‘career exploration’, ‘career information’ and ‘career development’, often synonymously. Varied advice, guidance, exploration and information activities are all considered necessary to support and inform effective career development. This conceptualisation sees ‘career development’ as the complex process of managing life, learning and work over the lifespan (Miles Morgan 2007).

In this paper, the term ‘career exploration’ was taken to encompass those strategies and approaches used to promote an active engagement with and exploration of career options. The researchers acknowledge that career exploration often includes career advice and/or career information elements, which are more passive approaches in the broader context of career development. For the purpose of this paper, the definition of career exploration is the process of:

- learning about yourself and the world of work
- identifying and exploring potentially satisfying occupations
- developing an effective strategy to realise your goals (University of California, Berkeley 2014).

‘Career exploration’ and all its elements make up an important part of career development in schools, but are not always effective in enabling young women to access the variety of career options possible. This leads to the risks of a too narrow focus on initial school-to-work transitions, which can
be at the expense of the development of skills and knowledge to support effective lifelong transitions (OECD 2004a, 2004b).

Career exploration can provide benefits at an individual, organisational and societal level. Effective approaches to careers exploration can help people to avoid social exclusion (Cedefop 2010; Hutchinson & Jackson 2007). Strategies and approaches for career exploration can alternatively increase educational engagement and attainment, strengthen pathways for ‘at risk’ young people, increase self-confidence, improve future awareness and goal orientation, promote greater awareness of the labour market, enhance employment outcomes for school completers, and enable greater labour market flexibility and mobility (OECD 2004a; Miles Morgan 2007).

The Australian Workforce and Productivity Agency (AWPA) in its 2013 National Workforce Development Strategy acknowledged the need for increased career advice for young people conducted by government and schools. The agency highlights the need for a ‘national brand for career development advice’ (p.13). The Australian Government undertook significant research into career development in the mid-2000s, leading to the publication of the 2008 Australian blueprint for career development (Ministerial Council on Education, Employment, Training and Youth Affairs 2008). This report identified 11 career management competencies that individuals need to manage their life, learning and work roles, with learning resources to support them. These include:

- personal management roles in building a positive self-image, interacting with others and growing throughout life
- learning and work exploration, which includes lifelong learning to support career goals, using information and understanding the relationship between work, society and the economy
- career building for work, career-enhancing decisions, balancing life and work roles, and managing the career building process.

Despite the articulation of these competencies within the national blueprint, feedback from schools and stakeholders suggests that the extent to which this policy framework has been adopted in schools is limited (Clarke 2013). The research undertaken by WAVE acknowledges this complex area of career exploration and career development generally and the funding pressures in schools, but focuses particularly on gender and the need to expand the career options of young women.

The challenges facing Australian schools in supporting the career exploration and pathways of young women are not unique to Australia. Despite broader ranges of curriculum and training opportunities in many Organisation for Economic Co-operation and Development (OECD) countries, young women continue to make education and employment choices along traditional and gendered lines (Ofsted 2011a, 2011b; Hutchinson & Jackson 2007). International research shows that across OECD counties, young women are far less likely to pursue post-school study in scientific and technological fields of education (OECD 2012). Some of the key approaches being adopted by governments and education policy-makers across the European Union and the OECD include:

- embedding career guidance within the curriculum (Cedefop 2014). Davies and Cox (2014) recommend a staged embedding of career advice in the curriculum, from a general career exploration module at the start of secondary school, to individualised career support tailored to a pupil’s needs in Years 10 and 11
- increasing the use of intermediary organisations in the development and delivery of career exploration activities (Cedefop 2008)
• focusing on the training, skills, qualifications and experience of the practitioners responsible for
counselling, guidance and advice to students (Cedefop 2008)
• shifting from a focus on supporting pathways at entry to the labour force to supporting skills for
effective navigation of education and employment options over a lifetime (Hansen 2006).

These key approaches are reflective of the outcomes of WAVE’s survey and the advice from
stakeholders in relation to the crafting of effective models of career exploration and the integration
of such options in school curriculum, with support and advice from career professionals.

Career exploration and the Australian senior secondary landscape

Evidence from recent research on senior secondary schooling (Clarke & Polesel 2013; Clarke 2013)
suggests that university pathways, perceived as the gold standard and used as a key measure of a
school’s success, receive the most attention in relation to career exploration and guidance activities
in schools. This is representative of the worldwide trend encouraging young women to focus their
aspirations on professional occupations, which require university degrees. The increasingly complex
senior secondary environment has implications for the nature, effectiveness and quality of career
exploration for Australian young people.

VET in Schools is one curriculum approach by which young women in secondary schools might explore
different career pathways. But young women make up a small proportion of overall VET in Schools
students in STEM and traditional trade areas (see figure 1), particularly in architecture and building
(3%), engineering and related technologies (11%) and information technology (30%).

The gendered patterns of participation evident in VET in Schools continue in post-school VET,
apprenticeship and higher education courses. Despite a strong policy focus on traditional trade VET
and apprenticeships in current approaches to VET in Schools (Clarke 2013), participation data indicate
that apprenticeship pathways continue to be relatively weak for young women (Rothman et al. 2011),
with only 5% of Victorian young women entering employment-based training pathways, compared with
16.7% of Victorian young men. Female school leavers and school completers aged 15–19 years are
less likely to enrol in VET study in the fields of engineering and related studies (7%) and architecture
and building (4%) (see figure 2). Female students also make up only a small proportion of Victorian
school completers enrolled in bachelor-level study in electrical and electronic engineering (7.8%),
mechanical and industrial engineering (8.6%) and building (8.5%) (Department of Education and Early
Childhood Development On Track survey 2013).

What the data in the two figures suggest is that there is an ongoing pattern of gendered educational
participation that reinforces gendered occupational outcomes. Earlier work undertaken by WAVE in
2004–05 noted that entrenched social conditioning affects the way girls and young women approach
their future career and life choices.

Respondents to this research survey also recognised the need for early interventions at school and
specific programs focused on young women to help address the effects of social conditioning. A gender
gap has emerged, whereby women with low school achievement obtain casual, part-time and often low-
skilled jobs and experience a highly competitive job market, with precarious and/or underemployment
(McMillan & Curtis 2008). In this context, effective and coherent approaches to career exploration that

5 The Victorian On Track survey, conducted annually, is the first and largest survey of school completers. In
the absence of national data on post-school transitions, the Victorian tracking data usefully illustrate the
gendered patterns of entry to apprenticeships and traineeships.
support pathways to secure and skilled occupations for young women are important, along with the need to focus on a change of culture in perspectives about what is ‘women’s work’ and what is ‘men’s work’. The impact of career exploration and career development in schools highlights that expanding options for young women is only one part of a ‘scenario’ for changing these perspectives.

Figure 1  Number of students 15–19 years of age, enrolled in VET in Schools courses, by field of study and gender, 2012

![Figure 1](image)


Figure 2  Number of students 15–19 years of age, enrolled in VET courses, by field of study and gender, 2012

![Figure 2](image)

Parents and families are recognised as playing an important role in shaping and informing the career decisions of young women. Parents with entrenched gendered perspectives of occupations themselves were described by respondents as hindering school-based strategies to broaden the interests and pathways of young women. Alternatively, where parents were aware of potential pathways in STEM and traditional trades areas, they were described as being an important and enabling stakeholder in effective strategies.

Respondents to the survey described a need for career exploration approaches to involve parents and families and provide them with opportunities to engage meaningfully with the school.

Methodology

This paper draws from a mixed method study. An electronic literature search and review of international and national sources formed the background to an online survey of stakeholders concerned with career exploration issues. An online survey instrument was circulated nationally to identify key stakeholders and networks.

Feedback through the online survey came from 217 respondents, who represented a broad range of stakeholder types (see figure 3) from across Australia.

Figure 3  Survey respondents, by stakeholder type (%)

Stakeholder perspectives were gathered from a range of different organisations and stakeholder types. Respondents included career education and career guidance practitioners (n = 56); practitioners and researchers within the higher education and VET sectors (n = 26); VET in Schools and/or pathways coordinators (n = 21); industry representatives (n = 21); representatives from government departments and policy-making authorities (n = 17); school principals and teachers (n = 10); and respondents who were playing a mentoring role for young women in industry (n = 6). This was a fairly representative sample of key stakeholder groups. As is the case with online surveys, individuals and groups forwarded the survey to others, so that an actual response rate is difficult to gauge. The breadth of respondents to the online survey provided insights into the current strengths and weaknesses of career exploration in secondary schools and identified ways by which current approaches could be strengthened. Responses that detailed new and emerging models of career exploration for young women in STEM and non-traditional areas were followed up with telephone or face-to-face interviews.
The survey focused on the following questions and considerations:

- the key strengths of current approaches to career exploration in schools
- what is needed to strengthen these current approaches
- the particular weaknesses in career exploration in relation to young women, including those that may result in gendered outcomes and in relation to their exposure to STEM pathways, including those leading to jobs in non-traditional occupations and industries
- the enablers of successful/effective models of career exploration for young women
- what needs to happen at a policy level to further strengthen school-based models of career exploration for young women
- the enablers of effective partnerships between schools and industry, how they might be strengthened, and in what ways are/can community and non-profit organisations play a role in career exploration programs and services for young women in schools?

Key themes identified by stakeholders

Stakeholders responding to the online survey identified a range of existing constraints to effective career exploration activities for young women and a number of implications for policy-makers hoping to enable and support effective practice in this area. Respondents also identified strategies and approaches effective in widening the participation of young women in STEM and non-traditional areas. The following are the key themes identified.

Constraints to effective career exploration

Gender stereotypes were described by respondents as having a significant impact on the aspirations, pathway choices and career exploration of young women. This gender stereotyping was described as common in advice provided as part of career exploration and development programs. Respondents emphasised the need for careers practitioners to modify advice and information to address any inadvertent reinforcement of social gender stereotypes in schools, particularly those related to specific industries and occupations. Gender stereotyping was described as starting early in childhood, making career exploration that counters this stereotyping an important part of education in primary and secondary schools. Programs that seek to overcome gendered stereotypes of particular industries and occupations were described by respondents as necessary.

In addition to concerns about gender stereotypes, respondents also described existing practices as not effectively responding to and reflecting the interests and needs of young women, but often rather those of the school. This was described as being particularly problematic for young women in regional, rural and remote areas, who often have limited exposure to career exploration opportunities. Effective approaches to ameliorate this issue were those described as focused on being relevant to the self-perceived competencies and aspirations of young women. Respondents commonly endorsed programs that included a self-assessment element, by which young women had an opportunity to reflect on their skills and interests, and match these with career opportunities.

Some of these constraints in relation to student choices of STEM subjects and careers are outlined in figure 4.
Career exploration strategies that work

In response to the online survey, stakeholders provided detailed information about a range of different strategies and approaches, including identifying role models and mentors as effective enablers of career exploration for young women. Respondents strongly endorsed the benefits of bringing in successful women from STEM and traditional trades to speak to classes and careers days, videos of successful women in resource kits and on websites, and providing access for young women to female-led and female-friendly STEM and traditional trade workplaces. Providing access to ‘successful women in non-traditional occupations and allowing them to speak to our young women’ was frequently described as a simple yet highly effective approach to breaking down gender stereotypes in career decision-making.
Many of the case studies also highlighted successful programs or examples of where industry could partner with schools to provide opportunities for young women. These included Industry Women Central, Fanelle and SALT, whereby young women could engage with successful female role models.

Taster, work experience and work-placement opportunities were also described as key to supporting young women’s active exploration of career options (n = 26). Respondents described a lack of access to learning and work experience opportunities as one of the barriers for young women. Taster opportunities were perceived by respondents as an important chance for young women to ‘try before you buy’ and were seen as crucial to ‘demystifying’ some of the gendered perceptions of STEM and traditional trades careers. While work experience and placements were commonly supported by respondents, there was also an emphasis on careful choice of work experience and work placement sites. Respondents described a need for ‘female friendly opportunities’ to support exploration of STEM and traditional trade roles and occupations. Active experiential learning opportunities, enabled through work placement and through school-based strategies, were identified by respondents as a very important component of effective career development approaches. Prior research has highlighted how students want a variety of experiential opportunities to give them hands-on practical experience and allow them to test different careers ideas (Urbis Pty Ltd 2011).

Survey respondents, particularly those from industry and non-government organisations, emphasised the role that intermediary and community organisations can play in developing and delivering career development in schools. These organisations were seen as particularly relevant to the provision of programs targeted to young women. Outside school organisations were described as effective in providing third-party expertise to support and enhance school knowledge and understanding of different pathways. Davies and Cox (2014) have suggested there are benefits to using existing skills hubs to act as intermediaries for businesses and industries that want to develop relationships with secondary schools.

Respondents to the online survey expressed concern about the accessibility of relevant information to young women and the accessibility of relevant and appropriate information for career guidance practitioners seeking to build and support pathways to STEM and traditional trade occupations for the young women they work with. Partnerships arrangements between schools and community, business and industry stakeholders were identified by respondents as an effective way of promoting and enabling access to the information necessary to inform and support effective career exploration. These types of partnership arrangements were also described as enabling more focused and targeted career planning activities in response to skill shortage needs in local economies.

Implications for policy on career exploration

At a policy level, respondents described the necessity for greater leadership to integrate and embed career exploration curriculum in schools. Explicit integration with what schools teach was required, not just a loose connection, with many expressing the sentiment that there should be a ‘highly visible and mandatory career education curriculum’.

The school-wide adoption of personal learning plans for all students and not just those perceived to be struggling was one possible strategy for coherently embedding career exploration in secondary education. This was reflected in one of the successful school case studies.

8 <http://www.saltaustralia.org/>.
The diversity in approaches to career exploration across Australian states and territories was described by stakeholders as complicating the role of schools, and the career development workforce in schools, in addressing the needs of all young people. To address this complex context, respondents called for greater clarity and guidance in relation to school priorities and allocation of funding. Respondents emphasised the need for greater clarity on the best practice approaches and strategies to ameliorate the current gendered post-school study and employment patterns. A number of these have been outlined in this report (school/industry/community partnerships, professionalisation of career guidance, sustainable resourcing, visible role models, and chance to taste careers) and in other relevant research, but appear to not always be accessible to careers advisers. When asked about the type of policy-level changes required to strengthen career exploration for young women, respondents suggested that the coherent and mandated adoption of the Australian blueprint for career development was a possible step that policy-makers could take (Ministerial Council on Education, Employment, Training and Youth Affairs 2008).

Respondents emphasised that career exploration experiences for students should cover a wide range of activities to increase curiosity and awareness of careers, including school talks, WorldSkills, tasters, conference attendance, work experience, visits to local industries and work with local volunteer/community groups. Respondents acknowledged that some schools were offering some of these opportunities; however, there needed to be a prioritising of the provision of effective career exploration opportunities in all schools.

A key criticism of current career development approaches, as identified by respondents, was what many described as the ‘add on’ nature of strategies, strategies that are separate or abstracted from curriculum. Respondents commonly called for an explicit relationship between career exploration and the mainstream curriculum. One of the challenges was a lack of access to exploration activities that were connected or related to learning and curriculum in the school environment. Respondents described a need for university and industry engagement with schools to widen access to career exploration opportunities and to support effective links.

In facilitating greater links between career exploration and the curriculum, respondents frequently spoke about the need for activities and strategies to be introduced as early as possible in secondary school. Some respondents also suggested a need for a coherent and coordinated approach in the latter years of primary school. This is in line with previous research (Davies & Cox 2014; Cedefop 2014), which has highlighted the importance of early and coherently staged career exploration and development approaches. Staged career exploration, which adopts a cycle of activities that promote an increasing depth and focus of exploration across the secondary school years, was also described by respondents as important in the effective engagement of young women. A staged approach may include initial broad personal reflection on interests and capabilities in primary and early secondary school before progressing to research on related industries and finally taster opportunities in roles and workplaces in a chosen industry in senior secondary school.

A lack of time and resources for career development staff in schools was a further strong and consistent theme identified by respondents. This again reflected the need for greater commitment to funding and leadership. Respondents expressed concerns about the training and qualifications of the career practitioner workforce in schools. The Australian Workplace Productivity Agency (2013) has also noted that career development advice should be delivered by qualified and well-informed career practitioners who are not associated with any particular educational institution. The training and qualifications of career advice practitioners was linked by respondents to the accessibility issue previously mentioned. Again, mandated adoption of the Australian blueprint was considered.
important in addressing this issue, with its recognition of the need for specific qualifications for careers advisers and the establishment and maintenance of ongoing professional development. While general career information was seen as useful for young women, it was described by respondents as being insufficient to enable and promote engagement in traditionally male-dominated occupations. Respondents emphasised that effective career information needed to target young women’s personal needs and interests.

Conclusions

Despite the plethora of research in Australia relating to the importance to young people of career development and exploration, the majority of this research does not investigate the issue of gender. The findings from this research have highlighted the need for strategies for career exploration and development to be relevant and targeted to the needs of individual students, including young women.

Several implications for the future development of career exploration emerged from the stakeholder feedback in this study. Foremost, there is a clear need for more explicit and coherent leadership to support schools to effectively embed career exploration activities in their curriculum and their career guidance practices. There is also a need for more explicit and more coherent policy on why career exploration is a necessary part of secondary school education, as well as an understanding of which approaches are most effective. The inclusion of coherent and staged career exploration programs in secondary schools should be mandated and have a focus on the opportunities that enable all young women to explore relevant options in a broad range of industries and workplaces.

The career exploration activities of schools can be effectively enhanced and strengthened through partnerships with education and training institutions and industry. Schools alone cannot achieve success in career exploration. Intermediary organisations, including community organisations, partnership brokers and peak industry bodies, have an important role to play in broadening career options for young women. The partnership activities of schools, especially those with industry, are particularly necessary to help overcome gendered stereotypes. However, meaningful and sustainable partnerships are complex to develop and maintain, and schools need support and guidance in how, why, when and where to establish and foster relationships in their communities.

To maximise the benefits of the career exploration opportunities available through these partnerships, young women need access to skilled, qualified and experienced career education practitioners who can provide relevant, accurate and timely information and activities, as described in the Blueprint and by the Australian Workplace Productivity Agency. The work of these practitioners requires sustainable funding and resourcing, particularly in relation to providing access to role models and mentors and low-stakes opportunities for young women to taste and experience non-traditional and STEM roles. While the role that career education practitioners play is a vital one and evidence from this research suggests consideration needs to be given to expanding the role of career exploration in the junior years of secondary school as well, it is often too late to start career exploration in the senior secondary years (Years 10–12) — the foundations of young individuals’ career aspirations have already been laid. As identified in the research, staged progress and implementation are necessary, as is government commitment to supporting the programs with sustainable funding.

The research was able to identify successful models of career exploration and partnerships which expanded career options for young women, but also recognised that these were often driven by passionate individuals or organisations. The challenge for policy-makers is to provide the funding,
knowledge and support so that such models can be adopted by all schools and adapted to suit local needs.

Despite the title we have given to this report, young women both deserve and need the opportunity to pursue a wider variety of career paths than is currently the case, and their participation in a wider range of jobs is necessary for Australia’s economic growth.

Acknowledgments

The authors acknowledge the valuable contribution of the 217 stakeholders who completed the online survey and provided their insights into the nature and efficacy of career exploration practices in Australia.

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