



CAREER DEVELOPMENT: DEFINING AND MEASURING QUALITY

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SECTION 1. INTRODUCTION

1.1 Rationale for the study

The NSW Auditor-General's Performance Audit Report No. 226 on the Impact of the Raised School Leaving Age (2012) made a number of recommendations. In particular, Recommendation # 7 of this Audit Report stated that the Department should:

*by June 2013, in regards to **career advice** for 15 to 17 year old students, examine:*

- *student **access** to advice*
- *the **quality and appropriateness** of advice, information and materials provided.*

The NSW Department of Education and Communities (DEC) reported to the Audit Office of NSW on actions taken by the Department to respond to the Report.

Three large scale studies had recently been undertaken within NSW secondary schools, namely:

1. The 2013 Expectations and Destinations of NSW Senior Secondary Students Survey. This study examined factors underpinning the engagement, retention and attainment of NSW senior secondary school students and their post education, training and employment destinations. Information was collected from four sources:

- The student themselves (i.e. self-reported measures) (n=5819).
- The student's parent and/or guardian (n=3098).
- Teaching staff within the school that the student had attended in 2012 (n=2501).
- The Office of the Board of Studies (OBOS) NSW administrative records.

Although career advice was not a major focus of this study, information concerning teachers' and students' perceptions of career and transition support services available at the school level, was collected as part of this investigation.

2. The Department's Student Pathways Survey has been administered for a number of years within government schools to students enrolled in Years 9 to 12. Between 9,000-15,000 government students have completed the survey each year. The survey was designed to measure students' self-efficacy beliefs in relation to career and transition planning, and includes items that measure their knowledge of career advice support services available, their perceptions of factors influencing career choice and barriers to fulfilling career aspirations.

3. The Department's annual online School to Work Program reporting, which has been administered since 2004 to over 420 NSW public schools each year. In this study, schools provide information in relation to how the school assists students with:

- developing confidence in self managing their career and transition planning
- exploring career futures by providing access to people, opportunities and a variety of media
- making explicit links to vocational and enterprise learning in all curriculum areas
- strengthening career, community and workplace learning opportunities through strategic connections, partnerships and networks.

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As a follow-up, in August 2014, the NSW Legislative Assembly Public Accounts Committee (PAC) recommended that:

by June 2015, the Department of Education and Communities conduct an evaluation of the quality and appropriateness of career advice provided in schools.

To undertake such an evaluation, it is first necessary to determine what is meant by 'quality and appropriateness of career advice provided in schools'. Given that there are no universal definitions or measures of quality career advice, the University of Melbourne has been engaged by the NSW DEC to:

- Undertake an extensive literature review to identify best practice indicators of quality career advice within school contexts.
- Determine to what extent existing data available from within the three data collection programs within the DEC (i.e. the Expectations and Destinations of NSW Senior Secondary Students Survey, the Student Pathways Survey and the annual online School to Work Program reporting) can be re-analysed to provide evidence of 'quality career advice' in accordance with the best practice indicators identified.
- Recommend further strategies and actions the Department should consider to adequately respond to the Public Accounts Committee's recommendation.

1.2 The structure of this report

The body of this report is divided into three sections. The next section (Section 2) provides a comprehensive review of Australian and international literature on quality career development provision. After defining the key concepts, the benefits of career development provision are documented. This is followed by a detailed discussion of quality, identifying best practice at the system and school levels and documenting the indicators/competencies at the school and student levels.

Section 3 maps the instruments from the three major NSW studies against these indicators (school level) and competencies (student level). The five step process involved a content analysis of individual items and the extent to which they correspond to the indicators/competencies. This mapping exercise reveals the extent to which a re-analysis of existing data can address the NSW Legislative Assembly Public Accounts Committee's recommendation.

Concluding the report, Section 4 summarises the findings and suggests future directions.

SECTION 2. LITERATURE REVIEW

Before a discussion of quality it is important to define and clarify the major concepts within the field.

2.1 Clarification of key concepts

A number of different terms are used to capture different practices within the field of career-related learning. Use of terms can differ between countries and, within countries, between jurisdictions. While there is debate around many of these terms and at times a lack of consistency in practice (Bimrose et.al., 2007), the following definitions are commonly understood in Australia and will be used to ensure clarity in this report:

Career development encompasses all activities that foster the individual student's knowledge, skills and capacities in relation to planning, developing and directing their career through informed choices. This report will focus on career-related learning that occurs in schools, although the development of career-related skills and knowledge is seen to continue across the lifespan (Hooley, 2014). Moreover, it is delivered by a wide range of providers - tertiary institutions, public providers, private education and work settings, and community organisations (Sweet et. al. 2009) - and also takes place within the family and local community (Perkins & Peterson 2005; Bedson & Perkins 2006).

Career education is one aspect of career development and has been defined as "a series of activities and engagements that help young people to understand themselves and the influences upon them (self development), investigate opportunities in learning and work (career exploration) and make and adjust plans to manage change and transition (career management)." (Hutchinson, 2013, p.3). Sweet et. al. (2009) define career education more narrowly as referring to curriculum-based interventions of this kind.

Advice and guidance comprise one-on-one discussions that support a person to identify career needs, potentially suitable career pathways, and appropriate responses. Typically these will be provided by a careers counsellor. Career counselling, career advice and career guidance are also terms used for these activities.

Career information comprises the delivery of accessible written, text, online, media or oral information concerning career needs and pathways, and includes career fairs, employer presentations, documents from tertiary providers and employers, and job search websites. It incorporates opportunities for young people to relate career information to personal and lifestyle issues, explore learning and career opportunities and progression routes, and build knowledge about where support may be available and how to access it.

Work-related learning is often delivered as a separate sub-stream within career development in schools. It incorporates learning for work to develop employability skills (for example, through enterprise learning), learning about work (for example, through vocational courses) and learning through work (for example, through work experience).

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A comprehensive approach to career development incorporates each of these elements. Sweet et. al. (2009) note that while career development services in schools have traditionally focused upon assisting youth to make choices about the next point in transition (such as selection of senior secondary subjects), research supports the notion that sound provision in career development should also emphasise and develop lifelong skills in planning, decision-making and information utilisation that will support career management across the lifetime. One potential model for conceptualising provision can be seen in Figure 1 below:

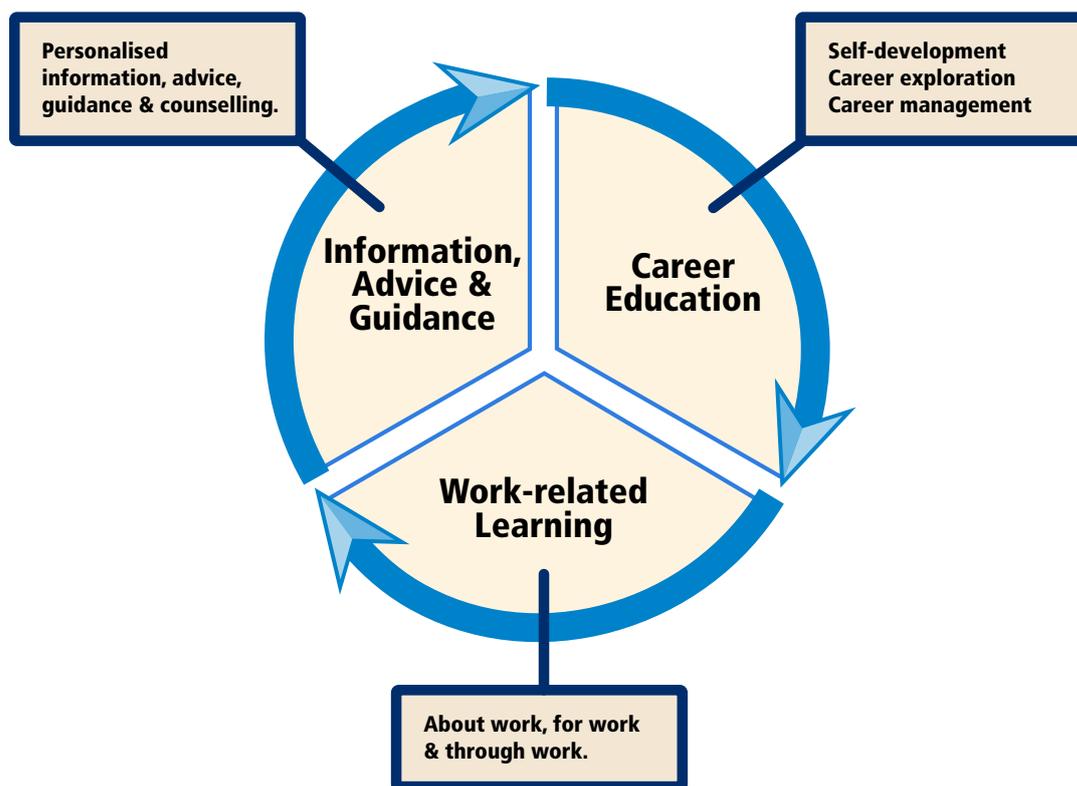


Figure 1: Components of career development provision (taken from Hutchinson, 2013)

Career development provision ideally needs to address all the areas covered in Figure 1. Sound career development provision includes activities that allow students to identify personal skills, abilities and interests, explore a range of careers, and develop the skills to identify potential pathways and the requirements for entering them. Activities should also support students to develop skills that will allow them to manage their careers and career changes across a lifetime (CICA, 2014). In addition, students need to undertake work-related learning that allows them to learn about the world of work, to develop vocation-specific skills, and to experience the workplace in areas of interest.

Young people are facing an increasingly complex tertiary education sector with a diverse range of organisations offering courses ranging from certificates to degree level programs. They also need the skills to assess the quality, cost and potential benefit of undertaking a qualification as well as to make a judgement about the quality, standing and the stability of the provider. This requires the capacity to evaluate the claims made by course recruiters (ASQA, 2013; Montague, 2014; Leahy, 2014).

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2.2 Scope of the report

The original recommendation from the Public Accounts Committee refers to evaluating “the quality and appropriateness of career advice provided in schools”. This report focuses on the broader concept of career development as it captures the diversity of interventions taking place in NSW. In practice, career development involves a range of activities and learning, of which individual advice is one component, and these elements are often overlapping and tightly interwoven. In attempting to make judgements about quality, it is impossible to differentiate, for example, between student knowledge about careers options provided through an individual counselling session, knowledge developed through general career education sessions provided in class, or that learnt through a careers expo held at the school. For these reasons, the report has taken a broad approach that considers the quality of career development provision by schools across many facets and program aspects.

2.3 Importance and perceived benefits of career development

There is a growing awareness that career development provision has benefits not only in terms of meeting the needs of individuals, but in supporting key policy and social goals, and ensuring a more effective and targeted use of common resources. The OECD report (2004a) notes that, “Labour economists and labour market policy-makers have long recognised that career guidance can help improve labour market efficiency (Ginzberg, 1971; Killeen, White and Watts, 1992; Rosen, 1995; Watt, 1996; Autor, 2001; Woods and Frugoli, 2002).” (p. 31). Quality career development provision potentially reduces the costs to both the individual and society of poor career choices, including costs of course delivery, time spent in an inappropriate course, and poor productivity in an inappropriate work role (OECD, 2004a, Sweet et. al., 2009). It can also develop the capacity of individuals to navigate successfully the transitions between education and work, which Schmid & Schömann (2003) identify as potentially risky.

Quality provision can support students to match choices about subjects in school with their skills and interests, potentially increasing student engagement and reducing dropout rates from schools (Hooley et. al., 2011; Sweet et. al. 2009; Bowlby and McMullen, 2002). Timely and accessible information about the labour market can also create better alignment between the needs of the economy and the workforce through the linking of labour market needs with educational choices (OECD, 2004a, 2009, 2008). There is also the essential role career development provision plays in reducing inequality, by addressing information deficits that may be associated with poverty and low levels of parental education (Sweet et. al. 2009, OECD, 2004a).

In addition, there is evidence of a positive impact of career development provision on elements of school effectiveness (e.g. Killeen, Sammons and Watts, 1999, cited in Bimrose et.al., 2007; Hooley et. al., 2011). Presumably because career education supports students to understand the relevance and importance of the work they are doing in school, research suggests that quality career development programs are associated with higher levels of academic achievement, increased student attendance and fewer behavioural issues (Hooley et. al., 2011; Lapan, Gysbers and Sun, 1997; Lapan, Gysbers and Petroski, 2001; Lapan, Gysbers and Kayson, 2007).

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2.4 Notions of quality in career development

The benefits of career development are well established. Career development provision has been recognised within all levels of government to be an important element of school education (Ley, 2014; CICA, 2014a, 2014b).

In a climate of increasing youth unemployment it is vital that State and Territory Education Ministers and School Principals ensure that their schools are providing quality career services that best enable students to help manage a successful transition from school to further education, training or employment.

CICA 2014b

These benefits however are dependent on the quality of the career development provision in schools. However, concerns have been raised by industry associations about the quality of current provision. For example, it was argued by the NSW Business Chamber that

... members and other stakeholders continue to raise concerns about the quality, consistency and industry relevance of career advice in schools. NSW Business Chamber members not only express these views from an employer point of view but also as parents.

NSW Business Chamber, (2012, p.3)

This raises the issue as to what is meant by the term 'quality career advice'. As in other educational sectors (e.g. higher education, vocational education) there do not appear to be any clear definitions or common understandings among key stakeholder groups of what is meant by the term quality, despite the increased importance and role of assuring quality of programs and services offered within educational settings. However, the literature on quality in education is relevant, providing insights that can inform the development of a quality framework. In her examination of quality in higher education, Green (1994) identified five different lenses for defining and measuring quality:

- Quality as exceptional (e.g. exceeding high standards and passing a required standard)
- Quality as conformance to standards (e.g. meeting expected, pre-determined standards)
- Quality as fitness for purpose (e.g. meeting the needs/expectations of the client/key stakeholder groups)
- Quality as value for money (e.g. through efficiency and effectiveness)
- Quality as transformative (e.g. transforming the student).

Building on the work of Green (1994), Table 1 has applied these five lenses for defining quality to career development programs delivered within secondary education school settings.

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Table 1: Five lenses for exploring quality in career development

Lens	Explanation	Examples	Status	Limitations/Implications
Quality as exceptional or as excellence	Traditional notion of quality. Used to identify a small number of educational institutions/practitioners that demonstrate exceptionally high standards.	League tables, Benchmarks, Gold standard – star ratings The Career Development Association of Australia (CCDA) Excellence Awards	The CDAA annually recognises excellence through its Excellence Award Program as part of the Association's Framework for Excellence in four categories: professional leadership, researcher, practitioner and employer.	At the state level, will only recognise exceptional quality of a small number of schools/practitioners and therefore, may be limited in the capacity to increase the quality of career advice across all schools. At this level, it does not provide guidance to schools as to how to achieve excellence. However, a cascade approach through which insights are shared between schools may tackle some of these issues. May not be linked to outcomes.
Quality as conforming to standards	Origins in the quality control approach of manufacturing industry (e.g. consistency in the product produced). Concerned with whether or not the school has met pre-determined standards.	Professional Standards for Australian Career Development Practitioners CICA School Career Development Benchmarking Resource	Continuous improvement function at the school and teacher level. No compliance/ accountability implications/ requirements as yet.	Even if there was a move to a compliance model, the frameworks and standards are limited to measuring and collecting evidence of processes performed at the school level that may or may not have any impact (short-term or long-term) at the student level. May involve significant time investment at the school level.
Quality as fitness for purpose	Based on the notion that quality has no meaning except in relation to the perceived purpose of the career development which can vary according to the interest of the key stakeholder group.	Student Satisfaction Surveys. Employer Satisfaction Surveys. Teacher Satisfaction Surveys. Parent Satisfaction Surveys. Longitudinal Destination Surveys.	The 2013 Destinations and Expectations surveys collected evidence of student and teacher satisfaction with career development programs/ activities at the school level.	As a measure of quality, depends upon the capacity of survey takers to make accurate judgements about the quality of provision. Answers may reflect the circumstances of the respondent and this can influence expectations. There is some evidence that this can vary with different groups (e.g. low SES parents may know less and be more satisfied than high SES parents).
Quality as value for money	Concerned with return on investment by community/taxpayers – cost benefit analysis.	Performance data such as student retention, completion, transition pathways, employment rates.	The NSW School to Work online school reporting collects evidence at the school level for this specific program which has a strong career development focus for accountability purposes at the school level in the use of state funding for the program.	May be based on a narrow definition of value. Difficult to measure with precision. Depends on the quality of available data and the availability of baseline data of the current state of play.
Quality as transformative	Concerned with developing students' capacity to make successful transitions over the life course. This includes self-efficacy measures, career management skills/competencies, enterprise learning skills. Hence, focuses on the outcomes of the career development.	Monitoring student development against the 11 Career Management Competencies across the four development phases specified within the Australian Blueprint for Career Development.	Not currently monitored at the national and/ or state level – requires the development of standardised assessment tasks and activities that monitor student development across time.	Ideally, requires longitudinal studies to measure impact of career development programs offered in schools on students' capacity to develop and successfully apply career management skills throughout their lifespan, particularly during transition periods. Difficult however to draw any definitive causal inferences from longitudinal and/or quasi experimental designs.

Table 1 illustrates that in working to measure the quality of career development provision, there are a number of different perspectives, each with strengths and weaknesses. Each approach shapes the types of conclusions that can justifiably be drawn about the nature of quality in a given setting.

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2.4.1 Evaluating quality

While the previous section considered the notion of quality, this raises the question as to how this concept should be evaluated. When evaluating the quality of a program, evaluators frequently examine five key areas, as outlined in Table 2 below:

Table 2: Common evaluation foci

Focus	Definition
Inputs	The resources put into the initiative to enable it to occur (e.g. human, financial, physical)
Processes	The procedures and activities that underpin and constitute the initiative
Outputs	Products and deliverables of the initiative (e.g. no. of staff trained, reports produced)
Outcomes	Effects of the initiative on the targeted group (e.g. changes in particular student or teacher behaviours)
Impacts	Cumulative effects of the initiative (which may not be directly observable or measurable during the implementation of the initiative but may be measurable over time following implementation).

This framework can be applied to assessing the quality of career development provision as follows:

- 1. Inputs:** What schools provide to secondary students: types of materials, resourcing, quality of resources, availability and ease of access?
- 2. Processes:** How this is provided: delivery models, activities utilised, targeting of resources?
- 3. Outputs:** How many students have accessed key services? What artefacts have been produced?
- 4. Outcomes:**
 - a. Learning outcomes: what skills and knowledge have students developed as a result of career development provision?
 - b. Behavioural outcomes: how have student behaviours changed as a result of career development provision?
- 5. Impact:** What is the subsequent impact of the inputs and processes, through the outputs and outcomes, on the quality of student transitions to the labour market and to further learning opportunities? For example, how well do young people manage transitions through education and from education into employment? What proportion of young people makes a successful transition into high quality jobs and has longer term career paths?

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Ideally, what constitutes best practice should be determined with reference to the results achieved (i.e. best practice is that which achieves the best outcomes and impact for students). In practice, while measurement of learning outcomes from careers programs has been substantial (Prideaux et. al., 2000), measurement of behavioural and labour market outcomes, including the establishment of causality and the quantifying of the extent of impact, is methodologically complex. This is in part due to problems in controlling for the range of variables that can impact on transition outcomes, in part due to the problems of following up on samples, and in part to the porous boundaries marking what constitutes career development provision. A lack of funding has also played a role in the dearth of large-scale longitudinal studies that might provide further clarity in the field. As the Miles Morgan (2011) report notes, “there is little longitudinal research that enables researchers or policy makers to understand the causal relationships that exist between particular inputs, processes, and outcomes” (p.39).

Consequently, there is a relative paucity of evidence of the impact of career development provision on behavioural and labour market outcomes. A number of the current indicators of best practice in careers development provision are therefore largely based on studies of student learning outcomes (e.g. Patton & Creed, 2002), on student reports of usefulness (e.g. Rothman and Hillman, 2008, Patton & McCrindle, 2001; Witko et. al., 2005), and on feedback and evaluations from practitioners (e.g. ACEG, 2012).

As noted in Table 1, there are limitations to each of the approaches outlined.

2.5 Determining best practice in career development provision

In section 2.3, we identified the key aspects of a framework for evaluating quality in career development provision. However, for any evaluation it is important to consider practice at three different levels:

- The education system – This concerns the policy framework, including funding arrangements, regulations, guidelines etc. which sets the context within which individual schools operate. State education departments and other educational authorities are the major players. However, we also need to consider the policy settings established at the Commonwealth level by the Australian government.
- The school – Individual schools determine an approach to career development provision which includes allocation of funding and responsibilities, provision of activities and investment in professional development of staff.
- The individual student – The focus at this level is the service offered to students. The type and effectiveness of this service is shaped by the directions set at the school and system levels.

In evaluating quality of provision, the focus is usually on the service received by the individual student and the way career development provision is established at the school level. However, the levers available to governments are usually at the system level. Understanding the relationships between the three levels is important for both the development of a quality evaluation framework and the design of policy interventions.

In the next section we will focus on identifying the characteristics of best practice at the system level. In section 2.5 we will discuss best practice indicators at the school level. Indicators at both levels are guided by concern for the outcomes that can be achieved for individual students.

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2.5.1 Best practice at a system level

Although outside the scope of this study, the research evidence available indicates that best practice career development provision is broader than what occurs at the level of the individual school. Best practice at a school level is dependent to some degree on the quality of practice at the system level. The evidence suggests that quality career development provision at the system level has a number of characteristics. Effective systems provide multiple entry points that are visible and known to students (Miles Morgan, 2011), allowing students to return to support services as the need arises. Structures should also be established that link school provision into a broader, seamless system of support that spans the life course, so that students become aware of and are able to access appropriate sources of knowledge and guidance once they leave school (Miles Morgan, 2011). Best practice provision across the system should also be differentiated to target more resources to schools and sites with the greatest numbers of students at risk of poor labour market and educational transitions (OECD, 2004a).

Best system-level practice also entails the monitoring of the quality of provision across the system, including supporting schools to monitor regularly key aspects of provision and to be accountable for its quality (OECD, 2004b). This builds in feedback loops that work to increase quality at the school level, but also sends a signal to schools about the importance of career development programs. Further, there is evidence that the quality of provision is impacted by the use of careers staff who have qualifications in the field, and access to relevant professional learning. While this in part can be determined at the school level, the system may support best practice by stipulating qualifications requirements, and by providing professional learning or funding to support the ongoing building of staff skills (OECD, 2004b). Key elements of best system-level practice are outlined in Table 3 below:

Table 3: Characteristics of best system-level practice in career development

Key aspect	Evidence
Differentiates provision to provide additional support for vulnerable groups	OECD 2004a
Provides substantial training for those in career education and advice roles and defines entry standards	OECD 2004a, Miles Morgan, 2011
Has visible entry points and multiple options	Miles Morgan, 2011
Commences early in school (foundations)	OECD 2004a
Monitors quality of provision at the system and school levels, including tracking to monitor student outcomes	OECD, 2004b, Miles Morgan, 2011; Sweet et. al., 2009
Is part of a broader, all-age, across the life course system of support	Miles Morgan, 2011, Morris, 2004, OECD, 2004a
Separates career guidance role from general guidance and counselling	Sultana and Watts, 2007, Sultana, 2004; Watts and Fretwell, 2004, OECD, 2004a
Is supported by delivery frameworks and quality standards	OECD, 2004b; Miles Morgan, 2011

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2.5.2 Best practice at the school level

Systems provide the overarching framework within which schools work to deliver career development interventions for their students. This section now focuses on best practice at the school level. The research outlines a number of key elements of best practice in terms of what schools offer students and the processes that are employed. For clarity, these have been divided into the categories of content, delivery, resourcing and oversight. These are outlined in Table 4 below:

Table 4: Indicators of best practice at the school level by area

Content Area	Sources
C1 Works to build both knowledge and skills	Miles Morgan, 2011, Morris, 2004, Morris et. al., 1999
C2 Involves a range of activities	Morris, 2004, NFER, 2014
C3 Provides knowledge of a broad range of options, including vocational	Patton & McCrindle, 2001, Rainey et.al. 2008, Misko et. al. 2007 Sweet et. al., 2009
C4 Is impartial and objective	Sweet et al, 2009, Miles Morgan, 2011, Morris, 2004
C5 Provides workplace learning linked to the labour market	Miles Morgan, 2011, Sweet et. al., 2009, OECD, 2004b
C6 Connects to the broader school curriculum	OECD 2004a
C7 Builds artefacts	OECD 2004a, Morris et. al., 2000
Delivery Area	Sources
D1 Provides time in the school curriculum	NFER, 2014, Sweet et. al., 2009, OECD, 2004a
D2 Uses a variety of delivery mechanisms and range of formats	Miles Morgan, 2011, Rolfe, 2000 cited in Bowes et al 2006
D3 Begins early in school career and is delivered over multiple year levels	Miles Morgan 2011, Morris, 2004, Bowes et.al. 2006, Ryan et. al., 2011, OECD, 2004a
D4 Includes compulsory career education	Miles Morgan, 2011, Sweet et. al., 2009
D5 Provides individual and tailored guidance when students need it	Bowes et. al., 2006
D6 Differentiates according to levels of student need	OECD 2004a, CICA, 2014a, Sweet et. al., 2009
D7 Partners with external careers providers	Morris, 2004
D8 Builds links with industry	OECD, 2004a, 2004b; Sweet et. al. 2009
D9 Holds all staff responsible and builds their skills	OECD 2004a, 2004b, Bowes et.al., 2006
D10 Involves and educates parents and carers	Miles Morgan, 2011, OECD, 2004a, 2004b, Sweet et.al. 2009
Resourcing Area	Sources
R1 Provides dedicated staff	OECD, 2004a, Watts and Fretwell, 2004, Sultana and Watts, 2007, Sweet et.al. 2009
R2 Delivers program through qualified staff	Kastine 2007, Morris, 2004, OHMCISW, 1997, cited in Bowes et al, 2006, Sultana, 2004
R3 Provides staff with professional learning, including cultural learning	Kastine, 2007, Munro and Elsom, 2000, cited in Bowes et al, 2006 p. 5, Miles Morgan, 201, Sultana, 2004
R4 Provides staffing resources sufficient to meet demand	Morris et. al., 2001
R5 Provides physical resources for individual guidance	OECD, 2004b
Oversight Area	Sources
O1 Audits programs to provide evidence of active planning for future improvement	NFER, 2014; OECD, 2004b, CICA, 2014a
O2 Includes learners' views in evaluations	NFER, 2014
O3 Ensures commitment of school leadership	Bowes et. al. 2006
O4 Includes career development in school policy and strategy	Bowes et al 2006, CICA, 2014a

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2.6 Best practice indicators at the school level

The indicators identified in Table 4 are now discussed in detail in this section.

2.6.1 Content Related Best Practice Indicators

C1 Works to build both knowledge and skills

Quality career development provision at the school level provides students with activities that build both knowledge and skills (Morris, 2004, Watts et. al. 2011). To equip students not just for immediate career decisions regarding subject choice and courses, but for lifelong management of their careers, career development provision needs to incorporate both external knowledge (such as knowledge about the job market) and internal knowledge (such as an awareness of their personal attributes and interests). Activities provided should also support students to link these two areas – for example, they should support students to link knowledge about their own skills and interests with potential areas in the job market and to identify suitable pathways. In addition, activities should be included that build specific skills related to job identification and the securing of employment (such as interview skills) (Ryan et. al., 2011).

Ideally, the literature suggests career education in schools should incorporate the following types of knowledge:

- Knowledge about the nature of current and future job markets (Ryan et. al., 2011; Sultana, 2004; ACEG, 2012; Hutchinson, 2013; OECD, 2004a, 2004b)
- Knowledge about the educational requirements for entry to various career paths (Ryan et. al., 2011; ACEG, 2012)
- Knowledge about the location and accessibility of a wide variety of courses (Ryan et. al., 2011; ACEG, 2012; Hutchinson, 2013)
- Knowledge about resources and services that can assist in job and course identification and access in both the present and the future (Ryan et. al., 2011; Miles Morgan, 2011)
- Knowledge about the experience and reality of roles in industries in which the student is interested (Ryan et. al., 2011; Hutchinson, 2013; Sultana, 2004; Sweet et. al. 2009)
- Knowledge of own skills, interests and strengths (Morris, 2004; Morris, et. al., 1999; Ryan et. al., 2011).

In addition to increasing students' knowledge across these areas, quality career development provision in schools needs to work to develop students' skills. Morris' (2004) research identified a number of important skills that were central to high quality programs. She found in particular that students' career exploration skills had a significant impact on a range of other outcomes. She noted that, "...young people with a high level of such skills were the least likely to switch courses or drop out of courses post-16 and were the most likely to be on a course that would lead to a higher level of qualification than they had already achieved at 16" (p. 4) and that this held true regardless of students' prior levels of achievement.

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C2 Involves a range of activities

There is a general consensus that quality career development provision involves students in a range of activities (NFER, 2014; OECD, 2004a, 2004b). Morris' (2004) study noted that "while some activities were significantly associated with the development of particular skills (for example, individual research exercises were essential in helping young people refine their careers exploration skills) no one activity or input was sufficient to promote the skills that young people needed to make the most of post-16 or post-18 opportunities" (p.6).

There appears to be no commonly accepted typology of career development activities. However, one comprehensive framework is that of Dykeman et al. (2001). Although not all activities apply to the Australian situation, it provides a useful guide to the types of activities that contribute to career development. This framework is outlined in Table 5.

Table 5: Career development activities (from Dykeman et. al., 2001)

Work-based interventions	Advising interventions	Introductory interventions	Curriculum-based interventions
Cooperative education	Academic planning counselling	Career day/career fair	Career information infused into curriculum
Internships	Career-focused parent/student conference	Career field trip	Career/Technical Education course (i.e. VET)
Job shadowing	Career peer advising/tutoring	Career aptitude assessment	Career skills infused into curriculum
Job coaching	Career map	Community members teach in classroom	Career academy /Career magnet school
Mentorship placements	Career maturity assessment	Guidance lessons on personal/social development	School-based Enterprise
Service learning/volunteer programs	Career counselling	Guidance lessons on academic planning	Student clubs/activities
Work-based learning projects	Career interests assessment	Guidance lessons on career development	
Work study	Career library/resource centre		
	Career cluster/pathway/major		
	Career passport/skill certificate		
	College admissions testing		
	Computer assisted career guidance		

There is a lack of agreed definitions for each of these activities. Moreover, it is difficult to operationalise them for research purposes. As a result, the literature on their impact draws heavily on students' perceptions of their usefulness (i.e. using a "Quality as fitness for purpose" paradigm, as illustrated in Table 1), an important though limited measure. There is only limited research that works to define empirically the impact of various activities (e.g. Whiston, Brecheisen and Stephens, 2003).

Generally speaking, students tend to identify individual discussions with career staff as being the most useful in helping them develop their career plans (Morris, 2004, Rothman and Hillman, 2008), Access to a greater number of activities appears to be associated with career development provision being rated as more useful by students (Rothman and Hillman, 2008). Further, the integration of activities and more structured group approaches appear to support effectiveness (Whiston, Brecheisen and Stephens, 2003; NFER, 2014; Sweet et. al., 2009).

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C3 Provides knowledge of a broad range of options, including vocational

A number of studies have found that the provision of information to students tends to be skewed towards information about university courses, with less information provided around vocational education and training courses and work-related options (OECD, 2004a, 2004b). Sweet et. al. (2009) found that school provision of senior secondary course-related information in Victorian secondary schools was strongest for the Victorian Certificate of Education (which articulates with university study), weaker for VET in schools options, and weaker still for the Victorian Certificate in Applied Learning. The OECD (2004a) noted that career counselling in schools has traditionally focused on educational choices, with very little input regarding career choices and longer-term life pathways, and that schools' efforts may be focusing on ensuring that those aspiring to a university education are fully aware of the subjects, options and processes involved, taking staff time away from those considering vocational training or workplace destinations (OECD, 2004b). Further, provision can be underpinned by the assumption that students will be an employee as opposed to starting up their own business. As such, there tends to be little emphasis on entrepreneurial skills and students' capacities to develop their own business (OECD, 2004a). A continued focus on enterprise learning in the School to Work Program is designed to help address this gap.

Given that approximately sixty percent of Australian students do not move into a university-based pathway, and that Australia has over 1.6 million small business operators (Australian Bureau of Statistics, 2006), school emphases on university-based pathways are likely to be short-changing a large and significant portion of the student population, and highlight the need for career development provision to be broad and to incorporate information about a diverse range of career options, including self-employment, vocational learning, and workplace options that can be undertaken on school completion. The relatively high levels of dropout from VET programs (NCVER, 2014) and the lack of alignment between VET qualifications and labour market outcomes (Karmel et al. 2008; Winbrow 2014) underline the need for more extensive provision of information of vocational pathways to support students to make better decisions.

C4 Is impartial and objective

The first priority in quality career development provision should be the best interests of the student; it therefore stands to reason that career development services should be impartial and objective (Miles Morgan, 2011, Sweet et. al., 2009, OECD, 2004a). A number of researchers have argued that there can be a danger in locating services within schools, as advice may be subtly influenced by school objectives, rather than prioritising student needs. This is particularly the case where the retention of students in the school is associated with funding allocations (OECD, 2004a). Morris et. al. (2001) found evidence of a lack of impartiality in approximately half of schools in a major British study, with students quick to perceive the school's motivation for giving particular forms of advice. The study notes, "students felt that teachers were actively withholding information about local college courses. As one stated: *'They're a bit biased [...] you don't really get any information about going to other colleges because they want you to stay here'*, while another reported: *'Whatever teacher I've spoken to, they've all said "You should stay here; colleges always have drugs problems"'* (2001, p.20). Although there are differences between the structures of the British and Australian education systems, this finding points to an issue that is pertinent to the Australian context. While the danger of biased advice is not insurmountable, it highlights the need for the training of career staff around issues of impartiality. It also underlines the importance of policymakers being alert to any unintended effects of policy initiatives to increase school accountability and performance, such as judging school performance on retention figures.

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C5 Provides workplace learning linked to the labour market

Survey and interview research with students indicates that they find workplace learning (whether through work experience placements, vocational subjects or workplace visits) helpful in assisting them to understand the realities of work in a given field, and allowing them to assess whether the field matched their interests and needs (Sweet and Watts, 2009; Watts, 1999). Indeed, a number of studies show that students would like to increase their access to this learning (Patton and McCrindle, 2001; Witko et. al. 2005). Workplace visits, work experience and vocational learning have in general been found to be more beneficial to students than other forms of contact with employers, such as employer visits and presentations at school (Sweet et. al., 2009).

C6 Connects to the broader school curriculum

To enable students to understand how their individual competencies and interests in various subject areas may be related to potential careers, a number of researchers have argued that quality career development provision needs to forge links between career education, career advice and the broader school curriculum (OECD, 2004a, NFER, 2014). Students who are interested, for example, in engineering, need to be aware of the substantial mathematical foundation for engineering work, and that a career in this area will require strong interest and strong achievement in maths. While these types of knowledge can be taken for granted by adults, there is evidence that students may not yet have forged these connections (Wheelahan et. al., 2012).

C7 Builds artefacts

In addition to building young people's skills and knowledge, a number of researchers indicate that the development of artefacts can support young people in their transitions (OECD, 2004a, 2004b; NFER, 2014). Such artefacts may include transition plans, portfolios that incorporate schoolwork, work experience, references and community roles, and curricula vitae. These may assist young people in crystallising their thinking around their career pathways, and support transitions into paid work. The Department's Employment Related Skills Logbook is an example of one such artefact. There is a growing body of research literature on the value of e-portfolios in supporting students to store and access their work, and present their work to others, and interest in the application of e-portfolios to the careers area (Mis and Dillingham, 2002, Barrett, 2007, cited in Hooley et. al. 2011).

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2.6.2 Delivery Related Best Practice Indicators

D1 Provides time in the school curriculum

The career education component of career development builds students' knowledge of a range of career paths and of their own needs and preferences. Three key delivery models are usually utilised in describing the delivery of career education in schools. First, career education can be delivered as a separate subject; second, career education can be embedded within another subject such as social studies or health and physical development; and finally, career education can be infused across the entire curriculum, delivered by subject teachers in secondary schools as they teach their subject. In Australia, many schools are given the choice as to the delivery model they wish to utilise. The evidence strongly suggests that the infused model carries a strong risk of poor quality delivery, as subject teachers can lack the knowledge, skills or commitment to deliver career education, or career work can be pushed aside in the response to the demands of the mainstream curriculum. The nature of the infused model also poses very significant obstacles to monitoring the quality of provision (OECD, 2004a). This strongly suggests that quality career education requires dedicated time within the school curriculum, being delivered through a separate subject, or as an identified component in an existing subject (NFER, 2014, Sweet et.al., 2009).

There is also some debate around the first two models, with some authors arguing that the status of career education is diminished when its delivery is embedded within another subject (e.g. Stoney et. al., 1998, cited in Bowes et. al., 2006). However, the evidence here does not appear to be definitive, and it seems likely that high quality career education can be delivered through either of the first two models.

D2 Uses a variety of delivery mechanisms and range of formats

Offering career development activities in a range of ways utilising a variety of mechanisms is important to meet the needs of diverse student populations (Morris, 2004, Miles Morgan, 2011; Rolf, 2000, cited in Bowes et. al., 2006). There is also increasing interest in the role of technology in providing career development for secondary students. Hooley et. al. (2011) argues that technologically-mediated delivery has three key strengths: first, it can increase student access without increasing staff resourcing; second, it can be highly learner-centred and allow students to engage at their own pace when it suits them; and third, it has the capacity to extend student learning beyond school hours and the standard curriculum (p. 8). They cite a growing research body indicating the capacity of games and simulations to provide students with highly effective environments for learning more about themselves and the world of work.

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D3 Begins early in school career and is delivered over multiple year levels

The timing of career education and guidance delivery within a young person's school career also needs to be considered. Surveys of young people suggest that many may be making decisions about career trajectories relatively early in secondary school or even in late primary school (Howieson and Semple, 1996, Russell and Wardman, 1998, Fostkett and Hemsley Brown 2001, all cited in Bowes et. al. 2006; Ryan et. al, 2011). For these reasons, many experts recommend that career development work with students commence in early secondary or even late primary school, but certainly no later than Year 8 (Morris, 2004; Sweet et. al., 2009; OECD, 2004b). This will ensure that students are well placed to make subject choices in middle and senior secondary. There is also evidence that career development activities can have a positive effect on student achievement and that these positive effects "are greatest when they are introduced at a younger age and are implemented in more systematic ways, e.g. a comprehensive guidance program." (Hooley et. al. 2011, p. iv.)

There is also evidence that young people develop clarity around their career goals at different rates (Ryan et. al., 2011). Further, there is general agreement that development of the complex career management skills that enable individuals to negotiate and re-negotiate the labour market at different points takes considerable time, and is a developmental process likely to continue into adulthood (Hooley, 2014). For these reasons, career development activities should be incorporated across a range of year levels, rather than simply focusing on key decision-making points such as subject selection at the end of Year 10.

D4 Includes compulsory career education

Reviews of the evidence for career development provision indicate that all students benefit from structured activities that support them to understand the world of work and the potential career paths open to them, and that give them tools to identify their own skills, interests and capacities (Sweet and Watts, 2009, cited in Sweet et. al., 2009). For these reasons, frameworks and recommendations for best practice usually indicate that career education activities should be provided to all students as a compulsory part of their school education (Sweet et. al, 2009; Gatsby Report, 2014; Miles Morgan, 2011).

D5 Provides individual and tailored advice and guidance when students need it

Research indicates that students generally nominate individual guidance as the most useful element in career development programs (Morris, 2004; Rothman and Hillman, 2008). Many researchers and practitioners recommend that all students have at least one opportunity for an individual session with a trained counsellor for career guidance (NFER, 2014; Gatsby Report, 2014). Some researchers suggest that it may be a more effective use of resources to focus individual sessions with careers staff on students who require the greatest level of support (e.g. Sweet et. al., 2009). Overwhelmingly, however, researchers and practitioners note the importance of students being able to access individual sessions at times when they feel the need for such sessions to clarify issues and identify clear pathways (e.g. NFER, 2014; Gatsby Report, 2014; Morris, 2004).

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D6 Differentiates according to levels of student need

Quality career development provision is also differentiated according to the level of student need, both at a school and system level (Gatsby Report, 2014; NFER, 2014). Ryan et. al. (2011) describe three distinct groups of school students identified in their qualitative work: those who are very clear about their career trajectory, those who have a general idea of preferred occupation but need to determine a pathway within this, and those who have little knowledge of career options and little idea of what they would like to do. Each group identified distinct needs for which effective provision should cater.

In addition, Ryan et. al. (2011) found that Australian students in rural and remote settings often have a limited understanding of a broad range of career options, particularly if employment in the local area is strongly tied to one or two local industries. Transitions can also be more complex for rural students if they need to consider moving to access employment or training opportunities. Indigenous, refugee, CALD and students with disability, together with students with caring responsibilities have also been identified as in need of potential additional support (Ryan et. al., 2011), while Sweet et. al. (2009) recommend case management support for all Indigenous students. Overall, there is a general consensus that students who are most at-risk of early leaving or a poor transition to the labour market (whether or not they fall into one of the above categories) will require additional support that should be targeted to them from the start of secondary schooling, and that schools should have in place systems for identifying such students (OECD 2004b; NFER, 2014). Quality careers development thus entails the provision of additional resources within schools (and with sufficient funding by systems) to allow for more extensive support to be provided for each of these categories of student.

D7 Partners with external careers providers

As noted elsewhere, a key concern of career development provision that is conducted solely through the school is the sometimes limited knowledge and capacity which schools and school-based guidance staff may have in relation to vocational and employment pathways (e.g. OECD 2004a, 2004b). In addition, many researchers have noted the need for career development provision to have multiple entry points so that, for example, a student who leaves school in Year 11 is not left without any knowledge of the potential career development providers they are able to access outside the school system (e.g. Miles Morgan, 2011). For these reasons, partnerships with external careers providers have the capacity to strengthen the quality and breadth of what schools offer their current students, while also providing students with connections and knowledge that will support them in their career pathways upon leaving school (Sweet et. al., 2009; OECD, 2004a, 2004b).

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D8 Builds links with industry

A further aspect highlighted in the research is the need to build links with industry. Sweet et. al. (2009) note that, *“Services that are exclusively provided within schools can be characterised by weak links to the labour market and a lack of impartiality”* (p.5). The OECD (2004a, 2004b) has also noted that a key weakness of school-delivered career development provision is that links with industry may not be strong; career guidance staff in Australian schools often constitute teachers who have agreed to undertake the role (with or without additional qualifications) and who have typically experienced a university education themselves. Their knowledge of industry and industry-related options and of the requirements for these roles may be patchy. International experience suggests that, in many countries, those students on a tertiary education pathway receive more attention and time from school-related guidance staff than those heading more directly to work (OECD, 2004a, OECD, 2004b). Building strong links with industry and working together in partnership appears to be one way in which schools may be able to compensate for the possible knowledge and experience limitations of school-based staff.

Partnerships with industry also facilitate the provision of student experiences in the workplace, and flows of information between industry and schools that can improve the quality of student transitions. Industry links may also create better alignment between industry’s expectations with regard to student skills and the skills schools work to develop in their students by increasing awareness and communication on both sides, and may potentially enhance students’ engagement and effort with schoolwork, by allowing them to see the relevance of what they are studying. Sweet et. al. (2009) also cite OECD data suggesting that *“strong links between schools and local businesses increase the probability that career guidance will be provided.”* (p. 64).

D9 Holds all staff responsible and builds their skills

As noted, quality career development provision should ideally incorporate information about careers within mainstream classes to support students in understanding how the knowledge they are studying links to careers – for example, a science teacher may talk about the work of microbiologists and pathologists during a unit on cells. For this reason, quality career development provision is seen as needing to involve all teaching staff, to hold them responsible for career development, and to provide them with opportunities to build their knowledge and skills in supporting students (OECD, 2004b, Bowes et. al., 2006).

D10 Involves and educates parents and carers

There is substantial evidence that family and, in particular parents, remain the strongest influence on young people’s career decision-making (Witko et. al., 2005; Wallace et. al., 2012, Sweet et.al., 2009, Wardman and Stevens, 1998 and Rolfe, 2000, cited in Bowes et. al., 2006). However, this influence may or may not support quality decision-making: Australian career education staff report that unrealistically low or high parental expectations may prove a barrier to a young person making wise and appropriate decisions regarding their career paths (Wallace et. al., 2012). Research also suggests that parental experiences, including parents’ own education and employment, tend to shape and possibly constrict parental views about appropriate pathways for their own children (Bowes et. al., 2006). Further, there is evidence that a substantial proportion of parents believe they lack the skills and knowledge to support their child adequately through decision-making processes, and that this lack of parental confidence increases as family income decreases, potentially leaving the most disadvantaged students most vulnerable to unsatisfactory advice and support for sound career decision-making (Wallace et.al., 2012). This lack of confidence may be compounded by rapid changes to the labour market and shifts in the qualification requirements for many jobs.

Consequently, best practice in career development provision works to involve parents and build their capacity to support their children (OECD, 2004a, 2004b). Australian evidence suggests that parents are keen for schools to provide them with more information and to engage more deeply with them in the career decision-making processes of their child (Ryan et. al., 2011).

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2.6.3 Resource Related Best Practice Indicators

R1 Provides dedicated staff

The delivery of quality programs in virtually any area is dependent to a significant degree on the quality and nature of staff responsible for their delivery. The research points in several clear directions with regard to the staffing of career development programs in schools. The first observation is that quality career development programs need dedicated staffing, with staff not required to fill other counselling roles. One of the most common delivery models worldwide is the delivery of career guidance by a guidance counsellor who simultaneously delivers other forms of counselling to students (OECD, 2004, Watts and Fretwell, 2004, Sultana and Watts, 2007). Sweet et. al. (2009) note that, "there is strong evidence that in such systems

- attention to the career guidance needs of all students tends to get squeezed by organisational pressures to attend to the personal and social needs of the few, particularly those leading to behavioural problems within the school; [and]
- such attention as there is to the needs of all tends to be on course choices, with little attention to their longer-term career implications." (p. 27).

Consequently, it is argued that for quality career development to be offered in schools, dedicated staff should be identified, and their role should not be expanded to include more general counselling.

R2 Delivers programs through qualified staff

Another unsurprising finding is that quality career development programs are dependent on staff with qualifications in the field (Kastine, 2007; Morris et. al., 2004; OHMCISW, 1997, cited in Bowes et. al., 2006; OECD, 2004a). The OECD report (2004a) notes that career guidance is a weakly professionalised field that encompasses staff who may or may not have qualifications, whose roles may be unclearly defined, and whose work may be split between providing career guidance and other activities, such as teaching mainstream classes. Requirements for counselling qualifications may be general, and there may be no careers guidance component in courses, or it may be very small; in addition, there can be an overemphasis on psychological approaches, with little attention paid to labour market knowledge and analysis (OECD, 2004a).

R3 Provides staff with professional learning, including cultural learning

There is a need for such staff to have access to professional learning both to build skills in their work, but also to allow them to keep abreast of changes in the labour market landscape and qualification requirements (OECD, 2004b). If careers development programs are to be effective across the diverse range of students, this professional learning needs to incorporate information about students' cultural backgrounds and the relationship with their career trajectories (Miles and Morgan, 2011), and this may particularly be the case for Indigenous students (Helme, 2009; Ryan et. al., 2011). In addition, training needs to be provided that develops the capacity of careers practitioners to support effectively those students most at risk of poor outcomes, and to understand how the experience of disadvantage may shape students' preferences and aspirations (OECD, 2004b. Lloyd, 2002, cited in Bowes et. al., 2006). In a number of jurisdictions, qualification requirements for undertaking career development roles can be uneven or low, so there is also a need to ensure careers staff are able to build their knowledge and skills (OECD, 2004a, 2004b).

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R4 Provides staffing resources sufficient to meet demand

While seemingly obvious, both at the system and school level, quality career development programs only exist where enough staff are provided to meet students' needs, particularly for individual advice and guidance (Morris, 2004). There does not appear to be any documented empirical evidence that quantifies an appropriate staff to student ratio, in part because the work undertaken by careers staff can vary considerably according to the context: in some schools they may only provide one-on-one careers counselling, in other schools this role is combined with more general counselling, while in some schools there may be an additional responsibility for development of materials and coordination of the delivery of career education activities with classes. Often the measurement of the appropriateness of provision is done by seeking feedback from students about how readily they can access careers advice when they need it. This constitutes an important general measure, but has limitations in that it cannot account for time careers staff spend in other activities (for example, developing a career education curriculum, or organising a careers expo), and also cannot take into account that student demand for careers staff advice is likely to experience significant peaks and troughs across the year. Another limitation is that students' feedback will also reflect the level of their expectations.

R5 Provides physical resources for individual guidance

Given that career advice discussions may involve personal information such as problematic family situations, the capacity of the family to support financially a student in post-school education, or a student's mental health issues, quality advice and guidance is supported by the provision of separate and private facilities for individual counselling (OECD, 2004b). A separate careers area within the school can also facilitate the visibility of the program and ensure that resources such as course brochures and information on various roles can be centralised for students.

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2.6.4 Oversight Related Best Practice Indicators

O1 Audits programs to provide evidence of active planning for future improvement

Quality provision of career development requires ongoing auditing of provision, with data collected at the school level according to indicators of best practice. These data are then utilised to evaluate areas of strength and areas that are in need of improvement in order to inform improvements to provision (CICA, 2014a; Gatsby Report, 2014; OECD, 2004).

O2 Includes learners' views in evaluations

The research suggests that quality career development provision not only includes ongoing review with the aim of continuous improvement, but also systematically seeks out learners' views in the evaluation of provision (Kastine, 2007). This ensures that programs are responsive to student need and that schools modify provision as the nature of the student body changes over time (CICA, 2014a).

O3 Ensures commitment of school leadership

As with many other aspects of school provision, the quality of leadership support for careers programs is vital. Quality appears to be enhanced when the school leadership team emphasises the importance of career development provision, is committed to enhancing the visibility and quality of career development provision and provides the program with status and appropriate resourcing at the school level (Sweet, et. al. 2009; Bowes et. al., 2006).

O4 Includes career development in school policy and strategy

As part of recognising the importance of career development within the school, the evidence also suggests that best practice entails the inclusion of career development provision within the school's policy documents and strategic planning documents (CICA, 2014a; Bowes et al., 2006). This allows for the linking of career development provision with other areas of the curriculum, supports the profile of the area, and ensures resourcing and planning decisions are not made without reference to careers provision.

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2.7 Output, outcomes and impact measures at the student level

The preceding sections outline some of the features of quality inputs and processes at the school level (see Table 4). Input and process measures, because of their focus on what is being provided, rely on information on what schools are actually doing with students in the area of career development.

In addition to process and input measures at the school level, quality of career development provision can also be examined through measures of output, outcomes and impact. These are typically measured at the student level.

There appears to be little in the literature on the use of output measures to evaluate provision quality. Some potential output measures that could be considered include:

- Number of identified artefacts, and the quality of those artefacts (for example, through an examination of a sample of student-produced curricula vitae);
- Number and percentage of students accessing one-on-one counselling services; and
- Number of work experience placements at each year level and length.

Outcomes measures have been much more extensively used to consider the quality of career development provision. As noted previously, the term “outcomes” refers to measures of immediate change in the recipients of an intervention. In the case of career development provision, this can include changes in students’ attitudes, values, behaviours, beliefs (including self-efficacy beliefs), and demonstrated student knowledge and skills. Commonly, these changes are assessed through self-report measures – for example, by considering students’ reports of changes in their confidence in identifying appropriate career paths or preparing a resume.

A number of measures of student outcomes have been developed in the field of career development provision. These include broad, comprehensive frameworks incorporating rubrics, such as the ACEG framework (ACEG, 2012) and the *Australian Blueprint for Career Development* (MCEEDYA, 2010). In addition, there are specific psychometric tools focused on measuring one aspect of student outcomes, such as the Career Development Self-Efficacy Scale or the scale to test organisation of students’ occupational thinking (e.g. Hampton, 2006; Vilhjálmsdóttir, 2010).

Frameworks usually group student outcomes within three broad areas. While the terminology may differ, outcomes generally fit within the domains of:

1. Self-learning or self-development outcomes (including developing an awareness of skills, abilities and interests, developing a positive mind-set, and interpersonal skills)
2. Career exploration and learning outcomes (including capacity to explore work options, understand the labour market, and access information about careers) and
3. Career management/employability outcomes (including capacity to make plans and decisions, utilise information and resources, and produce relevant documents such as job applications).

The *Australian Blueprint for Career Development* (MCEEDYA, 2010) provides a sound, contextually-relevant and comprehensive model for considering student outcomes from career development provision, and will be used as the model for considering outcomes in this report.

The *Blueprint* outlines 11 key competencies across three key areas (personal management, learning and work exploration and career building) that individuals require to make sound choices and to effectively manage their careers throughout their lifespan. These 11 key competencies are illustrated in Figure 2. The framework can be used to design, implement and evaluate career programs for young people and adults.

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AREA A: Personal management

1. Build and maintain a positive self-concept
2. Interact positively and effectively with others
3. Change and grow throughout life

AREA B: Learning and work exploration

4. Participate in lifelong learning supportive of career goals
5. Locate and effectively use career information
6. Understand the relationship between work, society and the economy

AREA C: Career building

7. Secure/create and maintain work
8. Make career-enhancing decisions
9. Maintain balanced life and work roles
10. Understand the changing nature of life and work roles
11. Understand, engage in and manage the career-building process

Figure 2: Career development key competencies at the recipient level (MCEECDYA, 2010, p. 14)

The *Blueprint* outlines a set of four developmental phases for each of these competencies (simply named Phase I, Phase II, Phase III and Phase IV). The *Blueprint* draws on Bloom and Krathwohl's taxonomy to argue that for each of these phases, students will move through stages in which they Acquire, Apply, Personalise and Act. So for each Competency and Phase, there is a set of performance indicators that demonstrate what achievement of that stage might look like. In addition, The *Framework* suggests that schools and practitioners develop from the performance indicators a set of local standards that describe what successful performance might look like within that particular setting. Given the highly detailed nature of the performance indicators, they were not appropriate for use in evaluating the data currently available to the Department, and would likely prove very unwieldy in attempting to measure quality of student outcomes at the state level. For this reason, we have chosen to consider quality of outcomes (both in terms of evaluating current NSW data, and in terms of any future data collection by the Department) using the 11 broad competencies.

With regard to impact measures, we have noted previously that in many respects these may be the ideal measure of quality, in that they are what career staff, school leaders and policymakers generally hope to achieve through the provision of career development services and support. High quality provision ideally leads to impacts on the quality of a range of longer-term outcomes for both individual students, and at the aggregate level. As also noted, measurement of longer term impacts is methodologically complex, and establishing causality (that is, that X inputs in career development activities lead to Y improvements in student outcomes) is difficult. For these reasons, measuring quality in this way is not commonly undertaken by career providers, either inside or outside schools. Examples of the types of impact anticipated as a result of quality career development provision can be seen in Figure 3.

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1. Young people proactive in taking charge of their futures
2. Young people's increased engagement, attendance and attainment
3. Young people making more informed decisions
4. Young people more ready for the world of work
5. More young people appropriately engaged in education, employment or training
6. Increase in number of young people achieving 'well-being'
7. Greater widespread understanding of 'lifelong learning'
8. An increase in the number of young people confident and resilient to cope with change
9. More staff across education aware of their influence on young people
10. Careers guidance embedded across the curriculum
11. Employers proactively engaged in the world of education.

From NFER (2014), p. 4.

Figure 3: Potential long-term impacts of quality career development provision

The measurement of these types of constructs, and the relationships between them and career development provision in schools is complex. Nevertheless, research is required to determine the quality of career development provision as evident by longer-term personal and labour market outcomes. Large-scale longitudinal studies that seek to make these links would provide the best possible basis for informed policy development. They would also provide empirical evidence on which arguments for the need for career development resourcing could be built.

SECTION 3. MAPPING EXISTING NSW SURVEY ITEMS TO BEST PRACTICE INDICATORS

Section 2 identified and justified the selection of best practice measures at the school and student level for assessing the quality of career development provision in schools. This section maps the existing NSW instruments against these measures at the individual item level. The mapping exercise will assist the NSW DEC to identify the extent to which existing data could be re-analysed to address the Public Accounts Committee recommendations (see Section 1).

As outlined in Section 1, there have been three major studies undertaken within NSW that have directly or indirectly explored access to career development in secondary education in NSW through the use of large scale surveys of students, teachers and/or parents. A brief description of the purpose and characteristics of each study has been presented below.

- 1. 2013 Expectations and Destinations of NSW Senior Secondary Students Survey.** This study examined factors underpinning the engagement, retention and attainment of NSW senior secondary schools students and their post education, training and employment destinations. Computer Administered Telephone interviews were held with 5819 students and 3098 parents, in which 61% had attended government schools; 24% had attended a Catholic school; and a further 15% had attended a NSW Independent School. 2501 senior secondary education teachers also completed an on-line survey. Although career advice was not a major focus of this study, four items in the teacher survey and another four questions in the student survey were designed to explicitly collect information concerning teachers' and students' perceptions of career and transition support services available at the school level.
- 2. The Department's Student Pathways Survey.** This online survey was designed to measure Year 9, 10, 11 and 12 students' self-efficacy in regard to career and transition planning. It has been administered annually in NSW for some years, with 9,545 to 15,212 students responding each year. The Student Pathways Survey has been designed to measure students' self-efficacy in a range of areas including employment-related skills, goal setting, job choice, career information and support, pathway options, career and transition planning, and intended school exit destination and timing. On completion of the online Student Pathways Survey, students receive an instantaneous feedback report which reflects their current thinking and offers ways to improve their confidence and capacity to self-manage their personal career and transition pathway. The Student Pathways Survey comprises 32 questions which have been designed to measure four broad factors at the student level: planning and preparing future careers; career challenges; influences on future job options; and importance of career information and services.
- 3. The Department's annual online School to Work reporting.** Over 400 government schools with secondary enrolments have provided information, on an annual basis since 2004, on how the school assists students with:
 - developing confidence in self-managing their career and transition planning
 - exploring career futures by providing access to people, opportunities and a variety of media
 - making explicit links to vocational and enterprise learning in all curriculum areas
 - strengthening career, community and workplace learning opportunities through strategic connections, partnerships and networks.

The items within the STW reporting template reflect the recommendations of the NSW Auditor General and more recently the Public Accounts Committee and therefore provide a potential wealth of data on career development activities being implemented at the school level. Further data from schools on how they evaluate the quality of their careers provision will also become available in 2015.

SECTION 3. MAPPING EXISTING NSW SURVEY ITEMS TO BEST PRACTICE INDICATORS

To ascertain the extent to which data from these three programs could be re-analysed to “evaluate the quality and appropriateness of career advice provided in schools”, the instruments used within each survey were mapped against the best practice measures drawn from the literature at the:

- School level for which there are four broad areas – ‘Content’, ‘Delivery’, ‘Resourcing’ and ‘Oversight’ - and a total of 26 indicators (i.e. refer to Section 2, Table 4); and
- Student level for which there are three broad areas – ‘Personal Management’, ‘Learning and Work Exploration’ and ‘Career Building’ - and a total of 11 career management competencies (i.e. see Section 2, Figure 2).

Both mapping exercises involved the following steps which were performed separately for each of the three studies:

1. Each survey item within each of the three studies was reviewed to ascertain whether it related to any of the broad areas of career development identified at the school level (i.e. Content, Delivery, Resourcing and/or Oversight) or student level (i.e. Personal Management, Learning & Work Exploration and Career Building).
2. Items that were not relevant to any of these career development areas were excluded from further review.
3. Of those items that were associated in some way with career development, a content analysis of the item was undertaken to determine which area of career development it most related to, and within that broad area, which indicator/competency best represented the item. Note that each item was qualitatively mapped to only one indicator or competency but one indicator/competency could have multiple items within and/or across the three survey studies.
4. For each indicator/competency, a judgement was then made by the research team as to how well the item or cluster of items within each study measured the indicator/competency. The following key was used to rate the adequacy of the existing items to measure each indicator/competency:
 - *Major modifications – the item(s) stem and response format would need to be rewritten and/or additional (new) items to be included if an adequate measure is to be achieved.
 - **Minor modification (e.g. change in response format) to the item(s) would be required to provide an adequate measure of the indicator/competency.
 - ***No change required.
5. A brief justification of why each indicator/competency was scored an asterisk rating was then documented as well as recommendations for improving the item(s) match.

The findings from steps 1 to 3 have been presented in

- Appendix A for the school level best practice indicators related to ‘Content’, ‘Delivery’, ‘Resourcing’ and ‘Oversight’ areas of career development; and
- Appendix B for the three broad areas of career development at the student level (i.e. ‘Personal Management’, ‘Learning & Work Exploration’ and ‘Career Building’).

Furthermore, the findings from Steps 4 to 5 have been summarised in Table 6 for the best practice indicators at the school level and in Table 7 for the student level competencies. Indicators/competencies highlighted red illustrates instances where there did not appear to be a match between the available set of items within the three surveys and the best practice indicators or competency statements identified in Section 2 of this report.

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Table 6: Mapping existing NSW studies instruments to the best practice indicators at the school level

Category	Best Practice Indicators	NSW STUDIES				Finding	Recommendations
		Student Pathways	School to Work	2013 Destinations & Expectations	Teacher Level		
		Student level	School Level	Student Level	Teacher Level		
Content	C1 Works to build both knowledge and skills		◆◆			Items limited to yes/no response – access only.	Expand items to include measures of frequency and quality.
	C2 Involves a range of activities		◆◆			Extensive listing of activities with data collected at the teacher & student level.	Expand listing to include representative coverage of four broad categories identified in Table 5 and include frequency scale.
	C3 Provides knowledge of a broad range of options, including vocational			◆		Only three options explored in broad sense: different jobs, university and TAFE and no indication of frequency or quality.	Expand option list and response format.
	C4 Is impartial and objective					No items available.	Develop new items.
	C5 Provides workplace learning linked to the labour market			◆◆		Authentic & vocational learning experiences explored at the school level.	No additional items required but should expand response format to include frequency scale to ascertain scope of coverage.
	C6 Connects to the broader school curriculum					No items available that explicitly measure this concept.	Develop new items, including how subject selection & vocational streams are addressed at the school level.
	C7 Builds artefacts			◆◆		Measures process only, not quality.	Samples of student artefacts could be collected.
Delivery	D1 Provides time in the school curriculum		◆◆◆			Items include both embedded and stand-alone models.	No new items required.
	D2 Uses a variety of delivery mechanisms and range of formats		◆◆			Use of technology explored.	Items could be expanded to include other delivery formats.
	D3 Begins early in school career and is delivered over multiple year levels		◆◆◆			Proportion of students in Years 7 to 12 participating in STW according to year cohorts, indigenous and LBOTE and disability.	No new items required.
	D4 Includes compulsory career education					No items available.	Develop new items at the school and system level.
	D5 Provides individual and tailored guidance when students need it		◆◆			Extensive listing of activities but no indication of frequency or quality.	Modify response format.
	D6 Differentiates according to levels of student need		◆◆◆			Comprehensive set of short response items.	No new items required.
	D7 Partners with external careers providers		◆◆◆			Comprehensive set of short response items.	No new items required.
	D8 Builds links with industry		◆◆◆		◆	Comprehensive set of short response items.	No new items required.
	D9 Holds all staff responsible and builds their skills			◆◆		These are items that explore how teachers identify and provide a range of opportunities for students to make explicit links to vocational and enterprise learning in all curriculum areas.	Collect additional data on how staff acquire and maintain up to date and current career development knowledge and skills within their vocational learning.
	D10 Involves and educates parents and carers		◆	◆◆◆	◆	The STW program collected comprehensive information on processes employed to engage parents in career and transition support. Student level data collected within other two studies limited to measuring influential roles only.	STW items be used as a future measure of this indicator.

(For the key, see step 4 on page 30.)

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Table 6: Continued: Mapping existing NSW studies instruments to the best practice indicators at the school level

Category	Best Practice Indicators	NSW STUDIES				Finding	Recommendations
		Student Pathways	School to Work	Student Level	Teacher Level		
Resourcing	R1 Provides dedicated staff		◆◆		◆◆	Limited to identifying staff according to position – no indication of the student: staff ratio or EFT position.	Expand items to include a measure of staff: student ratio and EFT role.
	R2 Delivers program through qualified staff					No explicit items available.	Develop new items at the school and system level.
	R3 Provides staff with professional learning, including cultural learning		◆			Limited to yes/no response on attendance at professional development course.	Include items to measure the perceived quality and impact of such professional development programs to acquire and maintain currency.
	R4 Provides staffing resources sufficient to meet demand					No items available.	Data could be collected in conjunction with dedicated career staff: student ratios.
	R5 Provides physical resources for individual guidance					No explicit items available.	Develop new items at school level.
Oversight	O1 Audits programs to provide evidence of active planning for future improvement		◆◆◆			STW reporting is undertaken by over 400 government schools.	Expand to all secondary schools in NSW for accountability purposes.
	O2 Includes learners' views in evaluations	◆◆			◆◆	Items limited in scope.	Expand items to measure beyond 'importance' to 'wants' and 'needs' and perceptions of 'helpfulness'.
	O3 Ensures commitment of school leadership					No explicit items available.	STW to be expanded to include measures of school leadership.
	O4 Includes career development in school policy and strategy		◆			Limited to yes/no response only.	Could sample policy documents at the school level.

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Table 6 illustrates that the School to Work program has the capacity to provide a wealth of data against the best practice measures of career development provision particularly in relation to the 'Content' and 'Delivery' areas. The other two NSW DEC Surveys (i.e. the 2013 Destinations and Expectations Survey and the Student Pathways Survey) were found to provide little information that could be used to respond to the Public Accounts Committee recommendation in relation to the quality of career provision in terms of input and processes implemented at the school level.

In relation to the School to Work Program reporting, it can be seen that six of the ten indicators within the 'Delivery' area were judged to be adequately addressed by the existing items within this study (i.e. D1, D3, D6, D7, D8 and D10). Given such findings, the survey data from this study could be re-analysed for purposes of exploring the extent to which schools are delivering quality career provision within NSW schools. It should also be noted that a further three indicators could also be addressed through existing data collected as part of the annual School to Work program but to a limited capacity (i.e. indicators D2, D5 & D9). However, if the Department considers 'compulsory career education' to be an important measure of quality of career development provision (as identified within the literature), there does not appear to be any existing item within any of the three survey studies that collects such data at the school level. Hence, the Department may want to consider collecting such information in the future as part of the School to Work program.

In relation to the quality of the 'Content' that underpins career provision within schools, four of the seven indicators were found to be addressed in some capacity by the data collected from within the School to Work program. However, such measures tended to be limited to measuring 'access' to content related career information and guidance as opposed to measuring the 'quality' of such provision. Furthermore, there were two additional content related indicators (i.e. C4 'Is impartial and objective' and C6 'Connects to the broader school curriculum') that were not adequately addressed within the existing NSW studies. Given such findings, it is recommended that minor modifications and amendments be made to the School to Work survey and additional data collected if quality of the content that underpins career development provision in schools is to be explored at the state level.

Finally, Table 6 illustrates that the data collected from the School to Work program has limited capacity to address the best practice indicators within the 'Resourcing' and 'Oversight' areas. In relation to the first 'Oversight' Indicator (i.e. O1 'Audits programs to provide evidence of active planning for future improvement'), Table 6 illustrates that the School to Work program was judged to provide adequate information in relation to this measure. This rating was applied to this measure as the school level reporting requirements of the School to Work program could be used for accountability purposes if it were administered to all schools within the state. Furthermore, in relation to the second 'Oversight' Indicator (O2 'Includes learner views in evaluations'), although it could be argued that the 2013 Destinations and Expectations data provided some evidence that learners' views are included in evaluations, this data is collected and used at the state level, not the school level and therefore, caution should be exercised when considering the possibility of re-analysing existing data for purposes of addressing this indicator. The remaining indicators within both the 'Resourcing' and 'Oversight' areas of best practice were not adequately addressed in any of the three NSW DEC studies.

In summary, the mapping exercise revealed that additional data would need to be collected if the quality of career development provision within NSW Schools is to be evaluated in terms of 'Resourcing' and 'Oversight'. There does however appear to be some capacity within the School to Work program to re-analyse existing data to explore the extent to which schools are delivering quality career development content and provision (i.e. in terms of the 'Content' and 'Delivery' measures of best practice).

The next table presents the findings from the mapping exercise at the student level. It aims to explore the extent to which the three existing NSW DEC studies could provide some evidence of student development against the 11 career development competencies within three broad areas: 'Personal Management', 'Learning & Work Exploration' and 'Career Development'.

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Table 7: Mapping the existing NSW Instruments to the MCEECDYA (2010) 11 Career Management Competencies (i.e. student outcomes measures)

Area	Competency	NSW STUDIES				Finding	Recommendations
		Student Pathways	School to Work	Student Level	Teacher Level		
Personal Management	1. Build & maintain a positive self concept	◆				Limited to perceptions of importance in relation to interests and abilities when planning future career options.	Future studies should investigate the direct relationship between self-concept and career choices of students using existing scales of measurement within the counselling literature and longitudinal studies.
	2. Interact positively and effectively with others	◆				Limited to perceptions of importance of relationships only.	Requires direct measures of students' interpersonal skills competencies through performance based assessments.
	3. Change & grow throughout life					No existing items.	New items are required to be developed that explore level of knowledge and understanding.
Learning & Work Exploration	4. Participate in lifelong learning supportive of career goals	◆				Limited to perceptions of importance and values which may or may not correlate with actual knowledge or understanding within the preferred vocational stream of interest to the student.	Expand response format to include open ended/supply items to determine actual knowledge and understanding in this area.
	5. Locate and effectively use career information	◆				Limited to knowledge and understanding of information sources and confidence in using such information – hence location only. No items relate to effective use of such information.	Tailor items to relate specifically to the vocational stream of interest and to determine accuracy of knowledge and understanding within that particular vocational stream.
	6. Understand the relationship between work, society and the economy	◆				Very limited in scope – limited to perceptions of importance.	Develop a knowledge based test/ assignment.
Career Building	7. Secure/create and maintain work	◆				Limited to exploring the importance of personal qualities in getting a job. This is a very broad competency that has many components.	Requires a number of assessments to be employed to address the full range of indicators. For example, an assessment would need to be designed to measure employability skills specifically.
	8. Make career-enhancing decisions	◆				Limited to exploring students' perceptions of importance and confidence associated with having more than one job choice or changing choice with time.	New assessment task required to be developed that directly measures students' ability to make career enhancing decisions
	9. Maintain balanced life and work roles	◆				Limited to exploring work conditions and travel time.	Expand items to include a knowledge based assessment
	10. Understand the changing nature of life and work roles					No items available.	New competency based assessment task required to be developed and administered to students.
	11. Understand, engage in and manage the career-building process.	◆◆	◆			Limited to self-reported measures of plans in place and perceptions of importance and confidence.	Collect samples of students' plans to assess the 'quality'.

(For the key, see step 4 on page 30.)

SECTION 3. MAPPING EXISTING NSW SURVEY ITEMS TO BEST PRACTICE INDICATORS

It can be seen in Table 7 that the 11 career management competencies are not well covered by the existing items within the three DEC Surveys. Although the Student Pathways Survey provided some evidence of student self-efficacy in relation to 9 of the 11 career management competencies, this survey was not designed to measure these competencies nor was it designed to answer the specific questions raised by the NSW Legislative Assembly Public Accounts Committee. Hence, the data supplied by such a survey is limited to self-efficacy and value-related measures of career development as opposed to actual competency development.

It should be noted that the School to Work program included an item that attempted to measure the impact at the school level of having a Transition Adviser (i.e. item (I) within the Planning Transition Pathways section of the survey). Although this item could not be mapped to the 11 career management competencies identified in the *Australia Blueprint for Career Development* (MCEECDYA, 2010), a secondary analysis of the responses to this item from the 400 or more schools surveyed each year may provide anecdotal evidence of student level outcomes in terms of skills and knowledge development.

To evaluate the quality of career advice provided to NSW students in terms of student competency development (i.e. through a transformative quality review process, see Table 1) in the most direct way possible, new assessment tasks would need to be developed, validated and administered to a representative sample of students across a range of settings. This would allow the NSW DEC to measure and monitor their level of competence in each of the 11 competency areas in accordance with the four developmental phases identified within the MCEECDYA (2010) *Australian Blueprint for Career Development*. Such assessment tasks could be performance based tasks (e.g. portfolios, assignments, knowledge based tests/assignments), teacher observations using standardised rubrics, workplace supervisor observations/ratings and/or self assessments which would need to be judged by subject matter experts in career development and reported separately for each competency area. Ideally, student development and progression within each of these 11 competencies would be monitored throughout schooling and beyond.

SECTION 4. FUTURE DIRECTIONS

There appear to be three possible key directions open to the NSW DEC to evaluate the quality and appropriateness of career advice provided in NSW schools:

Option 1 Re-analyse existing data

Data collected for the three large scale studies -2013 Expectations and Destinations of NSW Senior Secondary Students Survey and the Department's Student Pathways Survey and the School to Work Program – could be re-analysed against some of the best practice indicators at the school level (refer to Table 6). This option has some time and cost advantages and would provide some information on the effectiveness of career development in NSW public schools, particularly in relation to the 'Content' and 'Delivery' quality measures. However, as explained in Section 3, there are significant limitations as the items in the three studies were developed to meet different needs. For example, a re-analysis of existing data would provide limited information in relation to examining measures of quality in terms of 'Resourcing' and 'Oversight' at the school level, and would provide insufficient data to examine quality in terms of career development competencies at the student level (refer to Table 7).

Option 2 Augment with collection of additional data

Existing data sets could be re-analysed but augmented with the collection and analysis of additional data. It is recommended that additional data collection should be done through the 400 or more schools that currently participate in the School to Work Program.

The scope of additional data collection can be varied, weighing up information needs against time and cost. Options could include:

1. Interviews or focus groups with students (focusing on the recipients' experience of career development and perceptions of their own strengths and weaknesses)
2. Interviews or surveys of careers teachers, counsellors, principals (focusing on the approach adopted by the schools and paying attention to the opportunities and challenges, resourcing requirements and oversight arrangements).

Option 3 Conduct a longitudinal study

A longitudinal study would yield a far deeper understanding of the factors supporting strong transitions and longer term positive outcomes for young people in NSW. This type of study would enable the identification of key factors impacting on the development of career self-management related competencies, and allow the investigation of the important relationships between such factors, providing a more differentiated picture of the experiences of young people in different circumstances. A longitudinal study would provide rich evidence on which school-related initiatives are most effective for different groups of young people and ascertain the longer term impacts of such programs. However, this approach would require investment of significant resources (i.e. both financial and human) to identify, develop and validate instruments to measure accurately students' competency development (in accordance with the career development competencies identified in the *Australian Blueprint for Career Development* (MCEECDYA, 2010)), and collect successive waves of data to monitor development across time and locations.

The Department could also take additional action to ensure that careers development provision is consistent with the most recent research and best practice. This could involve the creation of a website of resources or the development of case studies of best practice in schools. This could build on earlier work to collate resources for careers teachers (e.g. Curriculum Corporation 2007).

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APPENDIX A: SCHOOL LEVEL BEST PRACTICE MEASURES - MAPPING NSW DEC DATA COLLECTION INSTRUMENTS AT THE ITEM LEVEL

Best Practice School Measures		Existing NSW DEC Survey Items			
Category	Indicators	Student Pathways – Student level	School to Work – School level	Destinations & Expectations – Student level	Destinations & Expectations – Teacher level
Content	C1 Works to build both knowledge and skills		<p><i>Planning transition pathway</i></p> <p>c) Indicate the approaches your school uses to support students to develop a personal career and transition plan – career counselling, career education classes, explicit lessons/activities on career and transition planning, through other teacher programs, interviews with teachers, My Guide, Student Pathways Survey/Plan, Employment Related Skills Logbook on-line, Online career guidance tools, other electronic career planners, workplace learning, real game series, BOS Work Education/Work Studies courses, other.</p>	<p>Q12. Now some questions about career advice. Did any staff member at school ever: Show you how to develop a plan about your future study and work, including planning which school courses would help you reach your goals? Show you how to write a resume or job application Show you how to prepare for a job interview? Find out what kinds of jobs are suitable for you? Encourage you to consider jobs traditionally done by men? (for female respondents only to answer)</p> <p>Q13. Have you done any of the following things to find out about future careers or types of work? <input type="checkbox"/> Discussed your career plans with a school career adviser? <input type="checkbox"/> Discussed your career plans with a teacher who is not the school careers adviser?</p>	
	C2 Involves a range of activities			<p>Q13. Have you done any of the following things to find out about future careers or types of work? <input type="checkbox"/> Read information provided at school about different types of study or work? <input type="checkbox"/> Been on an organised visit to a workplace that was arranged by your school? <input type="checkbox"/> Attended an information session about university study that was arranged by your school? <input type="checkbox"/> Been on an organized visit to a university campus <input type="checkbox"/> Attended an information session about TAFE study that was arranged by your school? <input type="checkbox"/> Been on an organized visit to a TAFE campus <input type="checkbox"/> Had lessons on careers at your school (e.g. identify my abilities and interests, how to make choices, where to find information, how to seek employment). <input type="checkbox"/> Taken part in group discussions on careers <input type="checkbox"/> Listened to talks from visiting employers <input type="checkbox"/> Explored career websites in school time</p>	<p>7. How often (Never, once a year or more than once a year) do senior school students have the opportunity to participate in the activities shown below as part of their normal schooling? <input type="checkbox"/> Careers exhibitions or job fairs <input type="checkbox"/> Presentations (at school) by business or industry representatives <input type="checkbox"/> Visits to local businesses or industry <input type="checkbox"/> Visits to TAFE or other training organisations <input type="checkbox"/> Visits to universities or attendance at lectures at university</p>
	C3 Provides knowledge of a broad range of options, including vocational			<p>Q12 did any staff member AT SCHOOL ever: d) Provide information about different jobs g) Provide information about different university courses h) Provide information about different VET or TAFE courses</p>	
	C4 Is impartial and objective				

Best Practice School Measures		Existing NSW DEC Survey Items			
Category	Indicators	Student Pathways – Student level	School to Work – School level	Destinations & Expectations – Student level	Destinations & Expectations – Teacher level
	C5 Provides workplace learning linked to the labour market		<i>Exploring Career Futures</i> What authentic learning opportunities did your school provide for students (eg workplace learning, inquiry based learning, enterprise activities, community based work, shadowing, volunteering, service learning)?		
	C6 Connects to the broader school curriculum				
	C7 Builds artefacts		<i>Planning Transition Pathways</i> d) Indicate what your school uses to support students to document their personal career and transition plan/planning: Employment Related Skills Logbook Online, myfuture, Student Pathways Survey/Plan, Online career guidance tools, ReCaP, BOS Work Education/Work Studies, Personalised Learning Plans, other.		
Delivery	D1 Provides time in the school curriculum		<i>Strengthening Student Outcomes through Vocational Learning</i> A series of questions that explore how teachers identify and provide a range of opportunities for students to make explicit links to vocational and enterprise learning in all curriculum areas.		
	D2 Uses a variety of delivery mechanisms and range of formats		<i>Exploring Career Futures</i> What electronic career resources are teachers accessing to support students in their pathways planning (eg websites, social media, laptops/ipads/phones) (d - g) Which career information websites are students supported to use in your school (myfuture website, Ozjac, Job Guide, School/region website, Tertiary Institutions, Industry Specific, Careers Advisory Service website, Other)?		
	D3 Begins early in school career and is delivered over multiple year levels		<i>Student Participation</i> Proportion of students participating in subject specific work education/studies type subjects across each year level		
	D4 Includes compulsory careers education				
	D5 Provides individual and tailored guidance when students need it		<i>Exploring Career Futures</i> Indicate the approaches your school uses to support students to access formal and informal careers advice/ counselling at school: formal appointment with the Career Adviser, Individual dropping by the office of the Career Adviser, Careers Adviser meetings with groups of students, mentoring by members of the Career and Transition Team, teacher/executive		

Best Practice School Measures		Existing NSW DEC Survey Items			
Category	Indicators	Student Pathways – Student level	School to Work – School level	Destinations & Expectations – Student level	Destinations & Expectations – Teacher level
	D6 Differentiates according to levels of student need		<p>referrals to the Careers Adviser, Parent Interviews with the Careers Adviser.</p> <p><i>Planning Transition Pathways</i> Open ended questions (e-l) for school to document the strategies or programs that the school has used to build the career and transition confidence and/or aspirations of students from a range of disadvantaged groups (note each group has been treated as separate items on the survey).</p> <p><i>Exploring Career Futures</i> b) Indicate any groups of students that are currently not accessing careers advice/counselling. c) What is needed to ensure these students access careers advice/counselling?</p>		
	D7 Partners with external career providers		<p><i>Building Networks and Connections</i> d) Identify your local Partnership Broker e) What activities or programs have they provided that support student career and transition planning? i) Is mentoring used to support your students' career and transition planning? If yes, describe the key aspects of that mentoring support including the names of external organisations/programs.</p>		
	D8 Builds links with industry		<p><i>Building Networks and Connections</i> Is the building of community/business partnerships for vocational learning embedded in your school plan? If yes, give an example of an effective partnership and explain what it is contributing to your students and teachers. Does your school provide work experience? If yes, what student groups do you provide work experience for? How do you deliver work experience? (l - n)</p>		<p>8. Thinking about the curriculum received by students in Years 11-12, which statement below is closest to your view? a) Business and industry have no influence on the curriculum b) Business and industry have a minor and indirect influence on the curriculum c) Business and industry have a direct influence on the curriculum</p>
	D9 Holds all staff responsible and builds their skills		<p><i>Strengthening Student Outcomes through Vocational Learning</i> A series of questions that explore how teachers identify and provide a range of opportunities for students to make explicit links to vocational and enterprise learning in all curriculum areas.</p>		
	D10 Involves and educates parents	23. When planning for your future job, how important to you are the following people? (importance scale) – the opinions of my family/friends, teachers, other adults.	<p><i>Building Networks and Connections</i> f) Has your school actively engaged parents, carers, elders in the role to support their child's career development? g) If yes, how? h) What opportunities have you provided for parents/carers/elders and/or other community members to be involved in career and transition support for their child?</p>	<p>Q9 Did the following people have much influence on your choice of career – mother, father, teachers, school career advisors, other relatives, friends? A2 Which of the following influenced your choice of courses at school...your parents, career advisers at school, your teachers?</p>	
Resourcing	R1 Provides dedicated career guidance staff		<p><i>School Program Management (SPM)</i> Identify members of the team that supports the whole school management approach to student career and transitions: an executive teacher, careers</p>		<p>9. Which statement best describes who has the main responsibility for career guidance of students at your school? a) All teachers share the responsibility for career</p>

Best Practice School Measures		Existing NSW DEC Survey Items			
Category	Indicators	Student Pathways – Student level	School to Work – School level	Destinations & Expectations – Student level	Destinations & Expectations – Teacher level
			advisers, transition adviser, a parent, a student, a community member, other, N/A – no career and transition team		guidance. b) Specific teachers have the main responsibility for career guidance. c) We have one or more specific career guidance counsellors or advisers employed at our school. d) We have one or more specific career guidance counsellors or advisers who regularly visit the school. e) Not applicable, career guidance is not available at our school.
	R2 Delivers programs through qualified staff				
	R3 Provides staff with professional learning, including cultural learning		<i>Building Networks and Connections</i> k) Does the careers adviser and other career support staff participate in professional learning at local networks, CAA NSW and ACT (or other)?		
	R4 Provides staffing resources sufficient to meet demand				
	R5 Provides physical resources for individual guidance				
Oversight	O1 Audits programs to provide evidence of active planning for future improvement		STW reporting can be used for accountability purposes – hence the entire instrument could be administered across all secondary schools in NSW for accountability purposes.		
	O2 Includes learners' views in evaluations	24. Considering how your school can help you prepare for your future job, how important are the following: <input type="checkbox"/> Provide me with access to information about jobs I am interested in Show me what school subjects I need for different jobs Show me what courses I need to study after I leave school Show me what marks I need Show me what I can do well Help me write a resume Help me to use the internet to find out about jobs Help me to keep a record of my skills and experiences.			21. There is inadequate career advice at our school (not at all true to very true).
	O3 Ensures commitment of school leadership				
	O4 Includes career development in school policy and strategy		<i>School Program Management (SPM)</i> Has your school adopted a whole school management approach to School to Work?		

APPENDIX B: OUTCOME STUDENT LEVEL MEASURES – MAPPING NSW DEC DATA COLLECTION INSTRUMENTS AT THE ITEM LEVEL

MCECDYA BLUEPRINT		Existing NSW DEC Survey Items			
Area	Competency	Student Pathways – Student level	School to Work – School level	Destinations & Expectations – Student level	Destinations & Expectations – Teacher level
Personal Management	1. Build & maintain a positive self concept	10.6 How important is 'I like the job' when you are making decisions about your future career? 10.8 How important is 'I am good at the job' when you are making decisions about your future career?			
	2. Interact positively and effectively with others	10.9 How important is 'how my boss treats me' when you are making decisions about your future career? 10.10 How important is 'I know someone who does the job' when making decisions about your future career? 10.12 How important is 'who I will be working with' when you are making decisions about your future career?			
	3. Change & grow through life				
Learning & Work Exploration	4. Participate in lifelong learning supportive of career goals	1.3 There are things I can do now at school to help me reach my goals 1.4 There are things I can do now outside of school to help me reach my goals 14.2 How confident are you in being able to 'add to my skills and education as time goes on'? 18. When considering how you can improve your plan, how important to you are the following things? <input type="checkbox"/> Being clear on what I want to do <input type="checkbox"/> Finding out what educational qualifications and training I need <input type="checkbox"/> Finding out where I can go to get those qualifications or training <input type="checkbox"/> Considering how I will pay for the future education or training I will need <input type="checkbox"/> Knowing what courses to take in school to increase my chances of getting the job <input type="checkbox"/> Knowing what grades I need in school. 22.2 When planning for your future job, how important is 'marks at school'?			
	5. Locate and effectively use career	8. List the people, places or things where you can get help to work out what your future job(s) might be?			

MCEECDYA BLUEPRINT		Existing NSW DEC Survey Items			
Area	Competency	Student Pathways – Student level	School to Work – School level	Destinations & Expectations – Student level	Destinations & Expectations – Teacher level
	information	9. How confident are you that this help will assist you with your job decisions? 14.3 How confident are you in being able to ‘find out what education I need for my job choices’? 14.4 How confident are you in being able to ‘find out which schools, TAFE colleges or universities off the courses I might need’? 14.5 How confident are you in ‘knowing which school subjects are needed for the job(s) I am interested in’? 14.5 How confident are you in ‘knowing what marks I need to be able to onto the next stage of my plan’?			
	6. Understand the relationship between work, society and the economy	2. Do you want a part-time job while at school? 10.1 How important is ‘the money I will get’ when you are making decisions about your future career? 10.3 How important is ‘how interesting the job is’ when you are making decisions about your future career? 22.1 When planning for your future job, how important is ‘money’?			
Career Building	7. Secure/create and maintain work	13. 2 How likely might ‘my marks be too low’ be to STOP YOU getting your first job? 13.3 How likely might ‘I might not have enough education’ be to STOP YOU getting your first job? 13. 4 How likely might ‘I may not have the right skills’ be to STOP YOU getting your first job? 13.5 How likely might ‘I might not have the right experience’ be to STOP YOU getting your first job? 13.6 How likely might ‘I have an injury or disability’ be to STOP YOU getting your first job? 13.7 How likely might ‘I am not physically suited’ be to STOP YOU getting your first job? 13. 8 How likely might ‘My reputation’ be to STOP YOU getting your first job? 13.9 How likely might ‘Luck’ be to STOP YOU getting your first job? 13.11 How likely might ‘I may not have enough confidence in myself’ be to STOP YOU from getting your first job? 22.3 When planning for your future job, how important to you is ‘how smart I am’? 22.4 When planning for your future job, how important to you is ‘how skilled I am’?			
	8. Make career-enhancing decisions	6. Are there other jobs that you might be interested in? 7. If yes, what are they? 11. How important is it for you to have more than one job choice?			

MCECDYA BLUEPRINT Area	Competency	Existing NSW DEC Survey Items			
		Student Pathways – Student level	School to Work – School level	Destinations & Expectations – Student level	Destinations & Expectations – Teacher level
		12. Why is it important to have more than one job choice? 14.1 How confident are you in being able to 'change my job choice, if necessary, as time goes on'?			
9.	Maintain balanced life and work roles	10.2 How important is 'the hours I need to work' when you are making decisions about your future career? 10.5 How important is 'how far I need to travel' when you are making decisions about your future career? 10.11 How important is 'the holidays I get' when making decisions about your future career? 13.10 How likely might 'I am not willing to travel long distances' be to STOP YOU getting your first job? 22.5 When planning for your future job, how important to you is 'where the job is located'?			
10.	Understand the changing nature of life and work roles				
11.	Understand, engage in and manage the career-building process.	1.1 I can set goals for my future 1.2 I can plan how to successfully reach my goals 4. Have you thought about the kind of job you want as a career? If yes, what is the job? 15. Do you have a plan on how to get the job you want as an adult? 16. Do you have a written version of your plan? 17. How confident are you that you have a good plan?	Planning Transition Pathways Estimate how many students can articulate a career and transition plan. How many students have a written career and transition plan?		