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Research Agenda for Career Development Services in South Africa

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List of acronyms

Acronym	Explanation
ANA	Annual National Assessments
CHE	Council on Higher Education
COGTA	Cooperative Governance and Traditional Affairs
DAC	Department of Arts and Culture
DBSA	Development Bank of Southern Africa
DHET	Department of Higher Education and Training
DoL	Department of Labour
DPME	Department of Planning, Monitoring and Evaluation
DPSA	Department of Public Service and Administration
ETDP SETA	Education, Training and Development Practices Sector Education and Training Authority
HESA	Higher Education South Africa
HRD C	Human Resource Development Council
HRDS -SA	Human Resources Development Strategy for SA
HSRC	Human Sciences Research Council
IPAP	Industrial Policy Action Plan
JET	Joint Education Trust
LGSETA	Local Government Sector Education and Training Authority
LMIP	Labour Market Intelligence Partnership
MEC	Member of the Executive Council
NDP	National Development Plan
NEEDU	National Education Evaluation and Development Unit
NEET	Not in education, employment or training
NGOs	Non-governmental organisations
NGP	New Growth Path
NQF	National Qualifications Framework
NSDSIII	National Skills Development Strategy III
NSG	The National School of Government
NYDA	National Youth Development Agency
OFO	Organising Framework for Occupations
PIRLS	Progress in International Reading Literacy Study

Acronym	Explanation
PSC	Public Service Commission
PSETA	Public Services Sector Education and Training Authority
SACHED	South African Committee for Higher Education
SACMEQ	Southern and East African Consortium for Monitoring Educational Quality
SAQA	South African Qualifications Authority
SETA	Sector Education and Training Authorities
SIPS	Strategic Infrastructure Programme
SSPs	Sector Skills Plans
TIMMS	Trends in International Mathematics and Science Study
TVET	Technical, Vocational Education and Training

Research summary

In June 2014, the Department of Higher Education and Training (DHET) commissioned a research project to develop a national career development research agenda. Through a survey and interviews with stakeholders working in the career development landscape, information was discerned on what research areas to include in this research agenda, how to implement the agenda, fund the research, disseminate it, and monitor and evaluate the implementation of the agenda.

Key findings from the research are:

- **Career development is understood as a lifelong process** involving the provision of **information on careers, career advice, guidance and counselling, career pathing, and career planning**, to expose people from early childhood to retirement to information on career possibilities.
- Career development is a significant area of inquiry because of the high **unemployment rate among youth who are not in education and training, the articulation gap between schooling and higher education which leads to high failure rate, and the high levels of unemployable graduates.**
- **Although there are multiple career development interventions at schools, TVET colleges, universities, national government departments and municipalities,** there is limited evidence as to their effectiveness and impact, or whether they are reaching the targeted audience in all parts of the country.
- Therefore, a research agenda should provide **research areas and topics that enable the production of knowledge for evidence-based decision-making on key areas of weakness where intervention is required, and key success areas where replication is possible and would be beneficial.**
- **DHET will coordinate the implementation of the research agenda**.
- **Multiple sources of funding** shall be available to conduct research.
- The research outputs should be **accessible to be utilised**.
- A **framework** shall be developed to monitor and evaluate the implementation of the research agenda.

Executive summary

Introduction

Career development is defined in South Africa as a lifelong process, starting as early as early childhood development and spanning through to retirement. This *Career Development*

Research Agenda 2015-17 articulates with DHET's *Draft Research Agenda 2014 – 2017* (DHET, 2014) and sets out the priority areas to guide research activities on career development over the next two years. The research agenda was compiled using information sourced from desktop research of international and South African research on career development, a survey disseminated to stakeholders working in career development in South Africa, and interviews and focus groups with stakeholders who were not targeted for the survey. Eight focal areas were used to conceptualise the research: policy and legislative framework, international and national practice in career development, the career development environment, future priority areas, implementation of the agenda, funding the research, knowledge management of research outputs, and monitoring and evaluation.

Purpose of the research agenda

The main purpose of the career development research agenda is to specify areas that can be researched to contribute to an evidence-base to inform strategy and practice on career development. Research can contribute to an understanding of prevalent practice and good practice that can inform planning on career development.

Policy context

The Department of Higher Education and Training (DHET) is responsible for post-school education and training, and has been coordinating efforts at collaboration in career development, including the development of the Framework for Cooperation in the provision of career development services. DHET gets its mandate from the *National Skills Development Strategy III (NSDSIII), the NQF Act of 2008, White Paper for Post-School Education and Training,* the *Student Support Services Framework for Further Education and Training Colleges, Education White Paper 4, and Education White Paper 3*, which all promote the provision of career development information and services to guide students' career trajectories.

Rationale for a career development research agenda

Despite huge investment and a dedicated focus on the education, training and skills development sector, South Africa experiences several career development related challenges. Solving these challenges requires an understanding of root causes and solutions:

- The unemployment rate is over 25% - efforts to support employment, for example, youth employment accelerator programmes that set up first time job seekers on a career trajectory by training them to be work ready, and working with business to place these youth into employment are useful and regarded as successful.

Understanding why these employment accelerator programmes are successful and how they can be replicated to reduce unemployment would be beneficial.

- Of the unemployed, the number of youth who are not in education and training is very high (over three million in June 2014) – it is useful to explore the types of career development initiatives needed to get these youths actively employed or pursuing a career, whether an entrepreneurial route, basic work readiness programmes, or going back to school and college would be options these youths would consider. This would require exploratory studies on the reasons for the situation they are in, as well as a needs analysis to determine their career and life aspirations, and also an exploration of the understanding of career options available to them.
- South Africa is producing an inadequate number of graduates in science, maths, engineering and technology – a better understanding of awareness of careers in these areas, and the reasons for low uptake of maths and science across the education and training system would likely help with the production of more graduates in these key areas of economic development.
- The performance of South African children in national systemic tests and international benchmark tests is poor – these tests are in maths and English. An analysis of maths results is likely to provide secondary data that could explain the low uptake of maths in high school and higher education, and the resultant low production of graduates in maths. The benchmark test results seem to be highlighting that the language skills at foundation level are poor, yet language skills in English are critical for access, progression and success in a predominantly English speaking higher education system and economy. It would therefore be useful to understand the relationship between English language skills, achievement in school and higher education, and access to higher education and employment, as well as persistence in these spheres.
- Undergraduate throughout is very low, with only 27% of graduates completing their studies in minimum time, and less than half of those who enter university ever graduating. This failure has been attributed to the articulation gap between schooling and higher education, including decisions that learners make when deciding on subjects and priorities related to their intended future location in the labour market – international research has established a strong link between career awareness and advice and persistence and success in university. This is an association worth exploring in the South African context.
- Related to the above, some students who enter university are not sure what courses they want to study – an interesting area of investigation regarding this phenomenon is

how subject choice in Grade 9 is influenced and directed, and the extent to which this subject selection is linked to future career trajectories and life aspirations.

- There is limited research in South Africa on career development, and an over reliance on international research - more locally directed research will help inform practice and planning in career development services.

Given this context, a research agenda on career development is necessary to explore various aspects of career development.

Priority areas for a research agenda

The research agenda identifies 11 key areas of research:

Focal area	Purpose of the research
Policy and legislative framework	This research shall enable evidence-based policy development and support the development of legislation and regulations that will support the development of a coherent and effective career development service.
Strategy	Research conducted to support or inform strategy development and review. A key element of strategy and planning is to allocate an adequate budget and so research into costs and risks is included here.
Governance and management	This is research that enables effective governance and accountability of career development practice. This includes governance within the coordinating structures of government, accountability within service delivery structures and the establishment of oversight structures for improving the effectiveness of structures such as professional bodies.
Structure of delivery	This research will lead to, or help shape, improvements in the delivery structures for career development across all delivery points to be effective. This involves researching national coordinating structures (such as DHET) as well as various structures within the many organisations (public and private) who provide career development services.
Information to support career development	This research will identify and bring together all available information that can assist in the provision of career development services. This is likely to involve secondary research as other structures have responsibility for primary research. The intention is to provide career development practitioners with information

Focal area	Purpose of the research
	that will strengthen their role in providing advice and guidance.
Systems and processes	This research will help improve the systems and processes that are needed to both provide and support career development services.
Human resources	This research will identify the various occupational categories involved in career development work and help policy makers make provision for the employment and deployment of appropriate staff.
Human resource development	This research will help put in place effective learning pathways and education and training programmes to enable individuals to become competent in career development practice.
Service delivery on the ground	This research will support improvements in how career development services are being provided, through an analysis of what works and what does not work.
Culture and values	This research will support the development of an indigenous career development service and help build an understanding of the cultural and geographical factors that shape implementation of policy.
M&E	This research supports the monitoring and evaluation of the career development service as it is being implemented.

Delivery of research agenda

DHET shall coordinate the implementation of the research agenda, with support and collaboration from other identified stakeholders. DHET will fund some of the research projects, and other stakeholders will also fund others. Research outputs shall be shared and made accessible through multiple repositories. A monitoring and evaluation framework with a results chain will be developed. Impact evaluation questions will be developed and an impact evaluation design will be included with the implementation plan for the research agenda, so that indicators for measurement of success are articulated upfront, and some baseline data is collected at the outset.

1. Introduction

Career development is defined in South Africa as a lifelong process, starting as early as early childhood development and spanning through to retirement. The term 'career development' was coined during the process to develop the *Framework for Cooperation in the Provision of Career Development (Information, Advice and Guidance) Services in South Africa* (DHET, 2012), and is now being used consistently in literature and by stakeholders who were engaged in the development of this research agenda. Career development is an integral aspect of the education and training system, and it is guided and supported by multiple services and programmes including the provision of career information, career advice, career guidance, career counselling and career planning (Department of Higher Education and Training (DHET), 2014, stakeholder interviews and survey, 2014).

This *Career Development Research Agenda 2015-17* articulates with DHET's *Draft Research Agenda 2014 – 2017* (DHET, 2014) and sets out the priority areas to guide research activities on career development over the next two years. It is intended as a guide to practitioners, researchers and government departments working in the career development space, to identify areas of research that will add value to career development services and contribute to the existing knowledge base in the area.

Three methods were used for conducting the research to develop this research agenda: literature review of South African and international literature on research on career development, to explore what the research themes and methodologies are; and interviews with and an online survey to stakeholders from national government departments, municipalities, career information service and guidance providers, universities, and technical vocational and training (TVET) colleges. The data collected from these stakeholders informs this research agenda.

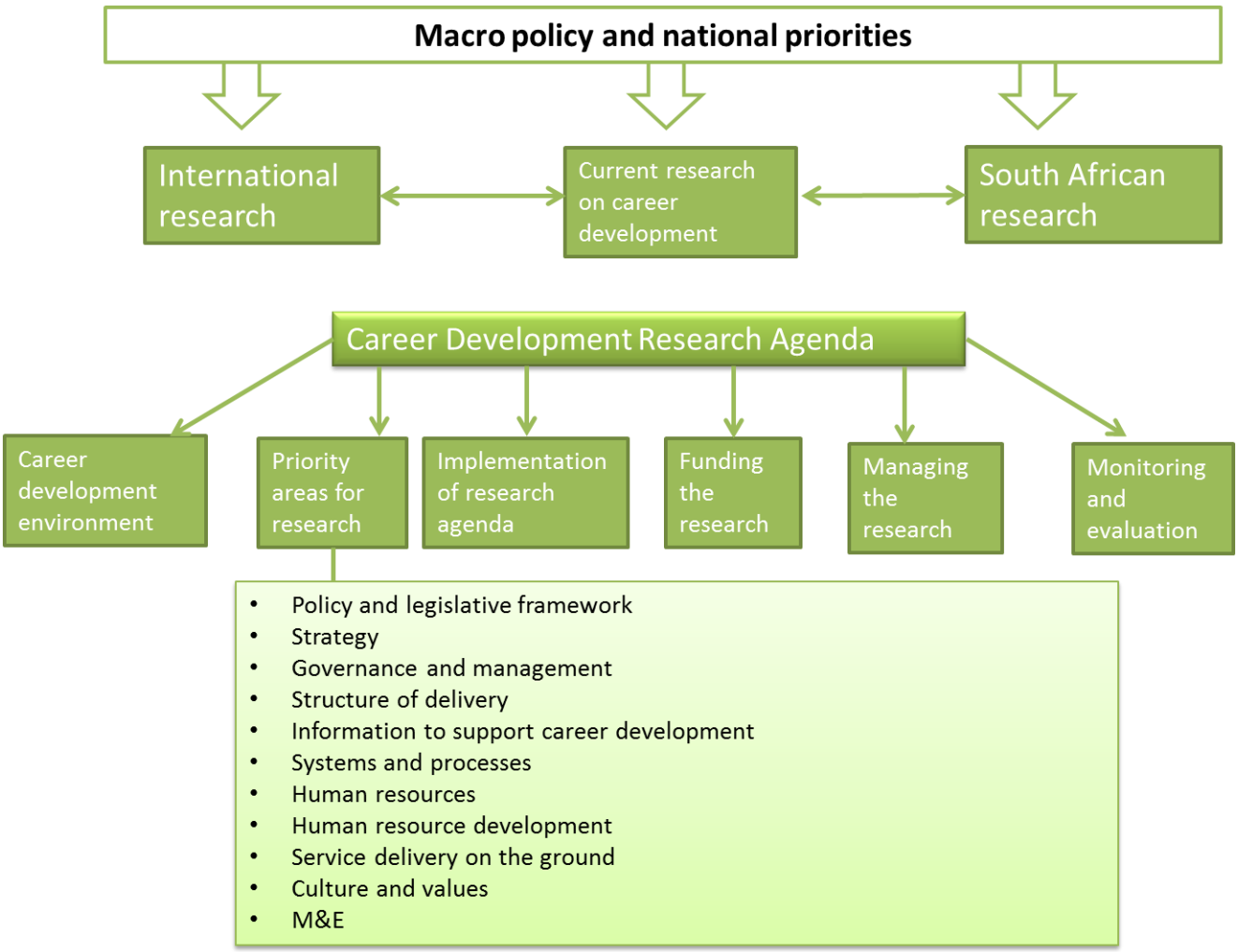
The research was conceptualised around eight key focal areas:

- **Policy and legislative framework** provides the overarching framework upon which the research agenda is built;
- **International and South African practice, based on research conducted in this area** provides an overview of what the research interests are, and the gaps that exist, that can be filled by the research agenda;
- **Career development environment** - this section presents a broad overview of activities and services, to provide the context within which the research agenda will be implemented, and the stakeholders involved in this space;

- **Future priority research areas**, particularly those that articulate with macro policy and national development priorities;
- **Implementation of the agenda** in relation to leadership and participation;
- **Funding the research**, to make sure that adequate resources are allocated for rigorous research, and that research is conducted timeously for evidence informed decision-making;
- **Knowledge management of research outputs** so the research can be shared and utilised for informing policy and practice; and
- **Monitoring and evaluation** to establish quality standards, adapt implementation of the agenda, and account to stakeholders.

The conceptual framework that informs the research agenda is presented in Figure 1.

Figure 1: Conceptual framework for career development research agenda



In this research agenda, research is understood broadly as:

> *rigorous and systematic enquiry, analysis, and reporting, sharing, publishing and disseminating topics of importance …. Such research may be empirical or theoretical, quantitative or qualitative, applied or basic. It may involve the critique of policy; analysis of regularly compiled data sets and explanations of trends; observation; case studies and other research investigations, or meta reviews and analyses. Rigorous evaluation studies of educational and training programmes or interventions, including cost-benefit analyses and impact studies, fall under the research umbrella, as do high level analyses of statistical data* (DHET, 2014, p.5).

2. Purpose of the research agenda

The primary purpose of the career development research agenda is to specify research areas that can enable an evidence-base of knowledge that can be used by policy makers and practitioners to inform strategy and practice to assist the country in meeting its developmental goals through responsive career development activities that are effective and efficient. Research is a critical aspect of education and training, especially where it can inform policy makers and implementers on how effective implementation of policy interventions is. In this regard, a research agenda can provide direction for research whose results can inform planning processes within DHET, other government departments, sector education and training authorities (SETAs), service providers of career development services, universities, and employers.

3. Context

3.1 The mandate for career development

DHET is responsible for the following:

- 25 public universities (from 2014)
- 50 public TVET colleges
- Public adult learning centres (which will soon be absorbed into the new community colleges)
- Human Resource Development Council (HRDC)
- Private TVET colleges and private higher education institutions
- SETAs and the National Skills Fund (NSF)

- Regulatory bodies responsible for qualifications and quality assurance in the post-school system – the South African Qualifications Authority (SAQA) and the Quality Councils
- Ensuring quality assurance of qualifications offered in other government departments e.g. nursing colleges and the national school of government, by the relevant quality assurance bodies registered with SAQA.

Many of DHET's areas of responsibility are directly connected to the skills channel in that they focus on education and training to supply the country's workforce. As such, the DHET is largely responsible for career development in its spheres of responsibility. A new unit, Career Development Services (CDS) has been established within DHET. Its main functions are to:

- **Create an enabling environment for the provision of career development services in the country.** This role involves policy development, development of standards and frameworks to enable operations, for example, development of the competency framework for career development practitioners and development of a research agenda for career development services. The provision of career development services also entails developing the National Career Advice Portal as a national CDS system and integrating it with available systems in other government departments. In addition, stakeholder management is an important aspect of coordinating CDS to address duplications and gaps in CDS and promote collaboration within the various sectors.
- **Implement the Career Development Services Project.** This entails direct delivery of services to the public through the career helpline and training and support.
- **Provide support services.** The focus here is information management to ensure supply of relevant and accurate content through the delivery channels. A knowledge base is being created within the DHET and shared with stakeholders. The content is constantly updated on the career help website. Advocacy and communication support services focus on marketing, advocacy and communicating career information. The projects include a radio programme where career information sessions are broadcast weekly on ten radio stations. The Apply Now! Project is also managed under advocacy and communication. This project is about creating awareness and encouraging learners to apply on time to the post-school education and training institutions.

These functions show the policy making, steering, coordinating and piloting role of DHET and points to the need for all stakeholders to work with DHET in planning and implementing

agreed interventions. In the absence of a formally structured "national career development service" the focus must be on coordination and collaboration of the many role players so that a level of coherence and consistency is achieved at the point of contact with users and beneficiaries of CD services.

However, as acknowledged in the framework for cooperation in career development, career development is a lifelong process (DHET & SAQA, 2012), so career development interventions, including a research agenda, should explore career development of all citizens for all age groups. Importantly, in the South African context, career development can be clearly distinguished along two distinct tracks: (1) preparing for and supplying skills for the labour market and business development – a process that spans the basic and post-school education and training sector, and (2) improving the skills of those already in the labour market (particularly public servants, for improved service delivery) and in business.

The leadership role of DHET in career development is entrenched in the *National Skills Development Strategy III* (NSDSIII), which promotes the "*linking of skills development to career paths, career development and promoting sustainable employment and in-work progression*" (NSDSIII, p.5) through improving the effectiveness and efficiency of the skills development system. The strategy specifies that this can be achieved through programmes to improve qualifications; support career and vocational guidance; support career pathing, and greater articulation of post-school learning pathways. The career development emphasis in NSDSIII is supported by the NQF Act of 2008, which is aimed at facilitating access to, and ensuring mobility and progression within, education, training and career paths. The *White Paper for Post-School Education and Training* (2013) also supports the provision of career guidance services and career counselling in the education system.

NSDSIII clearly articulates the role of SETAs in implementing career development initiatives like developing sector specific career guides, sector stakeholder engagement, and developing qualifications and programmes to address sector skills needs. The strategy is emphatic about addressing disability, gender, race, and age inequalities in the skills development agenda. In pursuit of equality and to address the challenge of youth unemployment and promote the career development of youth in the country, the Youth Employment Accord (Department of Economic Development, 2013) proposes mechanisms including supporting job placement schemes and developing and implementing work readiness programmes to facilitate employment of young people. The *Student Support Services Framework for Further Education and Training Colleges* (DoE, 2009); and *Education White Paper 4* (DoE, 1998) both map out requirements for student support

services that can lead to access and a successful career development trajectory for TVET college students. *Education White Paper 3* (DoE, 1997) maps a similar vision for the higher education sector, advocating for the expansion of career oriented programmes, and the development and provision of student support services, including career guidance, counselling and financial aid services, as well as ensuring staff development through "improved qualifications, professional development and career-pathing, instructional (teaching) development, management skills, technological reskilling, and appropriate organisational environment and support" (DoE, 1997, p.34). Education White Paper 4 also emphasises the importance of sharing information on tracer studies of graduates.

3.2 Rationale for a career development research agenda

There is overwhelming evidence suggesting that the country is experiencing huge challenges in relation to education, appropriate labour market skills and employment, all areas concerned with career development. South Africa has a high unemployment rate, currently 25.4%. Of this figure, unemployment is higher among youth and women. In the third quarter of 2014, the unemployment rate among women was 27,8% - 4,4% higher than among men. The youth unemployment rate was about 20% higher than that of adults (36,1% compared with 16,3%). In June 2014, there were over three million youth between the ages of 15 - 24 who were not in education, employment or training (NEETs). StatsSA concludes that there is a strong association between unemployment and lower levels of education - unemployment rate decreases in relationship to higher educational levels. Unemployment is lowest among tertiary education qualification holders and highest among those whose highest educational level was below matric (StatsSA, 2014). The high levels of unemployment particularly among the youth and women suggest that career development interventions are needed to assist young people with career development interventions before they become discouraged work seekers. In this regard, research that focuses on exploring whether there is any association between unemployment and career awareness, as well as whether industry responsiveness to career development could improve the employment rate would be useful. It would also be important to establish the value add of employment accelerator initiatives in preparing first time job seekers for successful placement into employment as well as the extent to which they reduce unemployment.

As much as educational qualifications are an important predictor of unemployment and employment, good quality qualifications are difficult to obtain, as the education system from schooling to post-schooling is faced with major quality challenges. South Africa is lagging behind in the production of science, maths, engineering and technology graduates despite

significant investment in the basic, post-school, and skills development systems. Deficiencies in the schooling system are evidenced through local Annual National Assessments (ANAs) and regional and international benchmarking tests, like the Southern and East African Consortium for Monitoring Educational Quality (SACMEQ), Trends in International Mathematics and Science Study (TIMMS) and Progress in International Reading Literacy Study (PIRLS), where South African learners perform poorly and are almost always close to the bottom of the scale. The poor performance of learners in these tests also highlights perpetuating historical disparities in the educational system, where black learners perform more poorly than their white peers (Spaull, 2013). Poor schooling outcomes persist to higher education studies. Recent analysis of poor performance in higher education has largely attributed this failure to the articulation gap between the schooling system and university. The Council on Higher Education (CHE) report on "*A proposal for undergraduate curriculum reform in South Africa*" (CHE, 2013) identifies a major cause of student under-preparedness in higher education as "the shortcomings and inequalities" in the public school system. It is therefore useful to determine whether careers are part of the developmental focus of preparing learners for higher education. Key questions to probe include:

- When learners study mathematics, science, and English in school, are they aware of the relevance of these subjects for their future? Are work/career related examples of the use of multiplication or division made relevant in the curriculum?
- To what extent do learners fail because they do not see the relevance and use of studying these subjects?
- To what extent do teachers explicitly explain the lifelong use and relevance of these subjects?

Many explanations have been proffered for poor performance within the schooling system, including dissonance between language of instruction and home language, poor use of the ANAs for remediation, and poor literacy skills that affect learning in all other learning areas (the National Education Evaluation and Development Unit - NEEDU - 2012). Poor learning outcomes are being attributed to low teacher quality, particularly in Maths, English, and Science (NEEDU, 2012; Spaull, 2012 & 2013).

Poor teaching has been ascribed to unqualified and under-qualified teachers in the system who possess poor subject knowledge. Many research studies and evaluations have highlighted that some South African teachers know very little about the subjects that they teach. In the SACMEQ III evaluation conducted in Grade 6 language and mathematics in 2007 (DBE and SACMEQ, 2010; Spaull 2012), of the 14 countries under study, South

African teachers performed poorly in both maths and language. In the reading test, teachers performed poorly in questions that required higher order cognitive ability, faring better in questions that required straightforward inferences. Other studies have also shown how teachers struggle with teaching content in science at secondary level (Jita & Ndlalane, 2009; Taylor & Vinjevold, 1999). While analysis of teacher subject matter knowledge has mainly been focused on the subjects that are assessed for subject matter knowledge, some attention is also required on the extent to which teachers who teach life orientation (LO) in schools are qualified to teach about careers. Anecdotal evidence suggests that career awareness and guidance is not taken very seriously in schools. One of the interviewees interviewed for this study highlighted:

> *The LO programme at school is an overloaded curriculum, there aren't subject specialists, it ended up being a subject assigned to teachers with the least load so we called it the LO merry go round, passed from one teacher to another* (Stakeholder interview, 25 November 2014).

South Africa has low and inequitable participation rates in higher education, relative to its own policy goals and other comparative developing countries. Graduation and throughput rates are low - recent cohort studies highlight that only 27 per cent of undergraduate students complete their studies in the minimum time and that only about half of the students entering higher education will ever graduate. There is a huge articulation gap between school and university which is causing transition challenges impacting student success in university. Some of those who manage to get to university are not sure what they want to do, and usually do so because tertiary study is a route to funding, regardless of the career prospects from the option of study (Lewin and Mawoyo, 2014). Lack of career awareness going into higher education may be a cause of unemployed graduates, a phenomenon worth exploring and understanding. Another interesting area of inquiry is exploring the link between career awareness and persistence, through cohort and tracer studies of those who have successfully completed higher education and found work.

Multiple explanations have been provided for the unsuccessful transition from university to work despite the many efforts on work readiness programmes. These explanations have attributed the high unemployment levels to the mismatch between industry needs and the graduates that are being produced in universities. Again, some empirical research exploring industry responsiveness to curriculum development and university responsiveness to industry requirements in curriculum design, as well as the impact of industry university partnerships on career formation, development, and career path will be useful.

The broad overview in this section shows that in South Africa, career development is as much a concern for those receiving education and training, as it is for those who are offering it, hence the focus of the Research Agenda on all ages of personal development, from early childhood to professionals in the workplace.

4. Macro policy and national development priorities

The South African education, training and development and skills development frameworks are all aimed at improving skills for better access to jobs and business opportunities to improve the quality of life of citizens. In this regard, career development is at the heart of national development efforts in the country. Key macro policy and development priorities are highlighted in Table 1 below.

Table 1 Overview of government macro policy and national development priorities

Policy/Programme	Policy/Programme Description
National Development Plan (NDP)	Long-term plan for South Africa that aims to eliminate poverty and reduce unemployment to 6% by 2030 through: • the development of a larger, more effective innovation system closely aligned with firms operating in growth strategy sectors; • supporting small businesses through better coordination of relevant agencies, development finance institutions, and public and private incubators; • an expanded skills base through better education and vocational training; and prioritising business incubation for SMEs and the expansion of business services.
New Growth Path (NGP)	Aimed at enhancing growth, employment creation and equity, the NGP sets a target of creating 5 million jobs by 2020 through a series of partnerships between the state and the private sector. The NGP envisions meeting the shortages in integral skills through training of engineers, facilitated by improved science and mathematics education and expanded bridging programmes for HE courses. The vision is also the training of artisans, especially in construction, mining, manufacturing and new green industries.

Industrial Policy Action Plan (IPAP)	The 2013-2016 *Industrial Policy Action Plan (IPAP)* identifies some of the key impediments to industrialisation and the economic growth of South Africa as an overall skills deficit and dissonance between supply of and demand for skills. The Policy identifies key sector specific action plans for improving manufacturing competitiveness, green economies, agro-processing, business process services, plastics, pharmaceuticals and chemicals, nuclear energy, and industrial development.
Human Resources Development Strategy for SA	The Human Resource Development Strategy for South Africa (HRDS-SA) (2010-2030) locates education and training within the broader developmental agenda of the country to ensure common alignment of various government programmes in addressing human development challenges. Broad outcomes of the strategy are equitable access to education and training and the development of skilled people for the economy.
Strategy Infrastructure Programmes (SIPs)	The Strategic Infrastructure Programme (SIPs) are estimated at a cost of R4 trillion over 15 years. There are 18 SIPs that have been identified that fall under the following categories: • Five geographic SIPs – developing bulk infrastructure to link various provinces of the country; • Three energy SIPs – developing sustainable energy infrastructure including green energy; • Three spatial SIPs – improving infrastructure in local government especially in rural communities; • Three social infrastructure SIPs – developing infrastructure to support social services such as hospitals; • Two knowledge SIPs – expanding information technology infrastructure as well as supporting initiatives like SKA and Meerkat; • One regional SIP – building links with other Southern African countries; and • One water and sanitation SIP – to address backlog of adequate water supply and provide basic sanitation.
DHET White Paper on Post-school	This White Paper provides a coherent vision of an expanded, effective and integrated post-school system in South Africa. The

Education & Training	expansion is premised on: – Expanding access to TVET and university education; – Establishing community colleges and skills centres to mainstream vocational education and training; – Establishing a national skills planning mechanism within DHET; – A strengthened National Skills Authority to monitor and evaluate the skills system; and – Creating more opportunities for work integrated learning.
National Skills Development Strategy (NSDS III)	The NSDS III provides an overarching framework for sector skills planning and the implementation of skills development. The Strategy provides eight goals that should inform the development of sector skills plans. Sector skills plans should be aligned to government and industry development initiatives, address the needs of unemployed youth, provide for new occupational qualifications, address the challenges within TVET colleges and build strong partnerships to deliver on the strategy.

The above macro policies and priority programmes have implications for the practice of and evidence base for career development, and raise the following issues and questions:

- What are the implications of the macro policies and national development priorities for the provision of career development services?
- How will information about current and future occupations in demand be obtained and how can this information be presented in career development materials and platforms?
- What planning can be done, and how, by those involved in career development services in response to these policies and national priorities?

5. The South African career development landscape

The South African career development landscape has been characterised by fragmentation in relation to *thinking about, organising, managing and providing career- and labour market-related information, career guidance and career counselling services* (South African Qualifications Authority (SAQA), 2012). Recently, the Department of Higher Education and Training (DHET) has taken the lead in career development and is collaborating with SAQA in the establishment of a comprehensive career development system for South Africa. This career development system is informed by four main aspects (Keevy, Steenkamp, & West, 2012):

- The insight gained from the development and implementation of the South African National Qualifications Framework (NQF) especially the focus on access, success, integration, progression and quality.
- The career development model that is being pursued is influenced by the experience of current SAQA staff and associates in the inclusive career guidance initiative established by Shirley Walters and other non-governmental organisations (NGOs) such as the South African Committee for Higher Education (SACHED) Trust in the 1950s to provide non-racial career information and counselling services to disadvantaged groups who could not otherwise access the services offered by the then government.
- SAQA's work in the development of the career development service is also informed by the findings of Flederman's comprehensive review of career development (2009, cited in Keevy, Steenkamp, & West, 2012). This review painted a picture of an uncoordinated and inequitable career development system, which until the work of SAQA and the Sector Education and Training Authorities (SETAs) was only accessed by a few.
- The emerging South African model of career development services draws on existing models from South Africa and other international models informed oby principles of access, inclusion, feasibility and affordability, for example, Next Step in the United Kingdom and Careers New Zealand.

South Africa has extensive key interventions in career development at schools, TVET colleges, universities, national government departments and municipalities, including:

- Career exhibitions and festivals for learners and life orientation teachers
- Career booklets, information cards, guides and resources
- Career videos
- Career advice and guidance
- Career dress up days
- Student support services at TVET colleges and universities
- Bursaries, learnerships and internship programmes
- Psychometric assessment
- Peer career education programmes
- Professional development in the workplace
- Career counselling
- Career planning
- Mentoring

- Coaching
- Leadership training
- Talent management
- Job placement
- Competency development
- Career pathing
- Graduate development programmes
- Performance management.

These activities and services are offered by a wide range of stakeholders, including government departments (national and provincial) and their entities, SETAs, universities, private service providers, non-governmental organisations, employers, and municipalities. Interventions are targeted at Grade 7 – 12 learners, TVET college and university students, and public servants. It is not clear whether there are any formal career development interventions at early childhood development level.

Although there is extensive provision of career development interventions across the education, training and development, and skills value chain, there is limited evaluation of these interventions. Most current and future planned research is based largely on the needs of the institutions and, to an extent, national priorities. The majority of the research is focused on skills audits and sector skills planning, and is used to determine training interventions and evaluate the effectiveness of interventions. Although impact evaluations have been limited, there seems to be a significant interest in these in the future. Most research being conducted is internal, with limited research being commissioned. While there is a perception that research is not accessible, quite a significant portion of available research is disseminated to stakeholders and in some cases workshopped with stakeholders. Research being shared includes that conducted by SETAs, municipalities, and university professors. Websites, conferences, and publications seem to be the most dominant methods of disseminating research, with email, discussion forums, and staff meetings being the other preferred methods. The publication platforms that have been used for dissemination of research are Careers Unlimited[1]; peer reviewed journals and Sector Skills Plans (SSPs).

Awareness of broader research on career development in South Africa is as limited as research being conducted. Research that is most cited is that produced by university professors, SAQA, the Human Sciences Research Council (HSRC), the Joint Education

[1]http://www.careersunlimited.co.za/

Trust (JET), World Wildlife Fund (WWF), the Further Education and Training Institute (FETI), the Department of Cooperative Governance and Traditional Affairs (COGTA), PACE Careers, and DHET, and includes:

- Research on interventions – career expos, career guidance, the biodiversity graduate development programme, national career advice service, research by FETI[2].
- Labour market research – research on technical and vocational skills facilitating integration into the labour market;[3] FET college learner tracer studies; COGTA's Gapskills research.
- Frameworks – *Framework for Co-operation in the Provision of Career Development (Information, Advice and Guidance) Services in South Africa*; *Competency Framework for Career Development Practitioners in South Africa.*
- Sector skills planning research by SETAs and the LMIP project in the HSRC.

The research that is available has been described as relevant and informative, although it is rated poorly on rigour and considered dated by some users. Those who use this research to inform their work are using it for planning interventions, benchmarking, to stay informed about labour market trends, informing career pathing, to determine scarce skills and interventions, identifying research gaps for study purposes. Despite the value attached to research and its use, there is a perception that it is not easy to access this research, mainly because of lack of knowledge of where to access this research, as well as the prohibitive cost of journal subscriptions.

6. International and national trends on research on career development

The literature review of career development research in South Africa confirmed the difficulty of access to this research – very few research reports were identified through a search of peer reviewed journal articles and theses sourced through the SABINET electronic database of South African e-publications, as well as other research reports sourced through the internet. The research reviewed was conducted by researchers in universities, researchers in government departments, research consultancies, SETAs, the HSRC, and Statistics South Africa (StatsSA). This research focuses on:

[2] Available at: http://www.feti.ac.za/researchprojectreports.html

[3] Available online at: http://www.google.co.za/url?url=http://www.norrag.org/fileadmin/Events/ROCARE-NORRAG_Powell_EN.pdf&rct=j&frm=1&q=&esrc=s&sa=U&ei=HpW4VMWfOob_UIbLgcAP&ved=0CBMQFjAA&usg=AFQjCNGMLiyGaRhA8nJyiHGZFu63L_eTzg

- Career decision making (Albien, 2013; Alexander and Dlamini, 2012; Botha and Mostert, 2013; Coldwell and Callaghan, 2013; De Bruin and Cornelius, 2011; van Staden and du Toit, 2011; Mhlongo and O'Neill, 2013);
- Evaluations of interventions (Chireshe, 2012; Miles, 2008; Keevy, Steenkamp and West, 2012; Uweso Consulting, 2013);
- Environmental scans of interventions (SAQA, 2012; DHET, 2014);
- Career development processes (Watson and McMahon, 2005);
- Mentoring (Seekoe, 2014; Mda, 2013; Maritz, Visagie and Johnson, 2013; Rankumise, 2013);
- Sector skills planning research conducted by the 21 SETAs and updated annually; and
- Labour market research conducted through the Labour Market Intelligence Partnership (LMIP) and available on LMIP's website.[4] This research is on labour market analysis, framework and information systems; skills forecasting: the supply and demand model; selected sectoral analysis; reconfiguring the post school sector; pathways through education and training and into the labour market; and understanding changing artisanal and occupational identities and milieus.

Methodologies being used include both qualitative (case studies) and quantitative (cross sectional surveys). However, most studies are localised and of a small scale nature. Some studies are employing theoretical frameworks to describe and explore phenomena. Examples of theories are systems theory, circumscription and the interactive model of career decision. None of the reviewed studies have engaged in theory generation.

Internationally, there seems to be wider interest (than there is in South Africa) in research on career development that is published in peer reviewed journals. A search of "career development" on EBSCOHOST Academic Search Complete generated 28 310 results of academic research on the area. Further, there are numerous country-based research sites for funded research on career development initiatives, for example, the Canadian Career Development Foundation: http://www.ccdf.ca/ccdf/index.php/research/reports. Narrowing the search to issues of relevance to South Africa – access and success, review of the skills development system, careers in maths, science and technology, post school opportunities for young people, disability and gender, rural development, inter-governmental relations and school university partnerships - revealed that the national issues that South Africa grapples

[4] : http://www.lmip.org.za/

with, such as career development and employment of youth and people with disability are not unique to South Africa and are prevalent in developed countries as well.

The international review revealed that social cognitive career theory plays an important role. It is viewed as useful in research studies as it predicts academic and career interests, choices, persistence, and success and enables a study of both person and contextual variables in career development. It is worth noting at this point that a number of stakeholders in South Africa expressed concern that over-reliance on such theory may be inappropriate to the country's context and history. Some express the view that the challenges being faced by young people growing up in townships and rural areas are such that there is a need for an indigenous body of knowledge that can inform a career development system that is directly relevant to the South African context. However, globally, such theory is viewed as important and therefore is also dominant in terms of what students in South Africa tend to access.

The following key findings from the international review have implications for South African career development practice and research:

- The individual is at the centre of career development, with support from school, parents, community, peers.
- Government is at the centre of career development policy formulation, and plays an oversight role in the provision of services and programmes, which are usually dispersed and provided by many agencies and entities.
- Multi-stakeholder collaboration is necessary to ensure development of a common understanding and a more coherent strategy for career development within a country. Collaboration in a platform such as a forum will enable sharing of information and ideas, resources, and coordination of efforts to avoid unnecessary duplication and wastage.
- Collaboration at micro level, between schools and universities, can be a useful way to expose students to their career trajectories while they are still in school, in order to motivate them by showing them the relevance of school to their entire lives.
- A career development framework or strategy enables a common understanding of career development that can be used to guide planning and design of interventions.
- Curriculum for schooling, colleges, and adult education is an integral aspect of career development – ideally, explicit curriculum is useful as knowledge of career possibilities can motivate learners and lead to academic success. It also promotes better transition from school to university. Career development curricula should take

cognisance of student identity e.g. disability and gender, and be sensitive to this and address this so as to give equal career development opportunities to all students.

- Priorities in a research agenda should be determined by the priority developmental needs of the country and its policy priorities.

The importance of publications as a dissemination platform was also evident. Available journals include:

- *Australian Journal of Career Development*
- *The Canadian Journal of Career Development*
- *Canadian Counsellor*
- *Australian and New Zealand Journal of Vocational Education Research*
- *Australian Journal of Psychology.*

Local publications help generate an interest in a practice area and provide the platform for academics and practitioners to share their work, usually as a stepping stone to publishing in international peer reviewed journals. Research on career development is also shared through websites of those funding or promoting the research.

7. Priority areas for a research agenda

The research agenda for career development focuses on research that informs improvements in the provision of career development information and services. The research should be able to provide information on gaps in career development provision, generate evidence on what is working well and should be sustained, and what is not working well and needs some review. The following focus areas and themes are pertinent to the career development research agenda.

Focal area	Purpose of research	Key research questions	Possible research methods/approaches
Policy and legislative framework	This research shall enable evidence-based policy development and support the development of legislation and regulations that will, in turn, support the development of a coherent and effective career development service	• What is the macro-policy context or environment? What is the education and training policy context? • What does existing policy and legislation say about Career Development Services (CDS)? • What is the policy "problem" with regards to CDS? • What are the policy gaps in CDS? • What is intended by the envisaged policy/policy review? • What laws and regulations are in place? • How effective is the legislative and regulatory framework in providing for career development? • Is there internal and external coherence with regards to the existing policy and legislation on CDS?[5] • What policy options need to be considered and what are the strengths and weaknesses of these options?	• Policy analysis • Policy implementation review • Desktop research • SWOT analysis • PESTEL analysis

[5] Note that external coherence refers to alignment with other policies and legislation, while internal coherence refers to internal consistency within a policy document on CDS.

Focal area	Purpose of research	Key research questions	Possible research methods/approaches
Strategy	Research conducted to support or inform strategy development and review. A key element of strategy and planning is to allocate an adequate budget and so research into costs and risks is included here.	• What is the theory of change for the career development research agenda? • What services should the CD system offer (ideally)? • What do the findings from M & E and research say about the effectiveness of the existing strategy? • How will the success of the strategy be measured? • What risks are there in the various strategies for delivery of career services? How can such risks managed? • What are the costs associated with various strategies?	• Log frame development through stakeholder workshops and interviews to agree goals and objectives, inputs, outputs, outcomes, indicators, and assumptions • Impact evaluation • Risk assessment • Costing

Focal area	Purpose of research	Key research questions	Possible research methods/approaches
Governance and management	This is research that enables effective governance and accountability of career development practice. This includes governance within the coordinating structures of government, accountability within service delivery structures and the establishment of oversight structures for improving the effectiveness of structures such as professional bodies.	• Who are the stakeholders in career development and how do they find a voice in policy making and strategy? • How are career services coordinated (what coordination structures exist, what are their roles, what are the mechanisms for coordination and how effective are they, and how do stakeholders work together to put in place effective career development services)? • What broad governance arrangements are in place to enable effective career guidance? • What governance mechanisms are in place in South Africa to enable strategy and implementation to be reviewed and for accountability? • What implications are there for governance in relation to "professionalising" the service? • What role do professional councils play in supporting career development and improving practice?	• Stakeholder mapping that leads to the development of a policy influence plan • Desktop review of international 'best practice' • Desktop review of South African 'best practice' • Exploratory studies using surveys, interviews and focus groups
Structure of delivery	This research will lead to, or help shape, improvements in the delivery structures for career development to be effective. This involves	• How are career development services structured? • How has the role and function of different career service delivery stakeholders changed over time? • How are services structured within stakeholder bodies? • How are career development services funded? Who is	• Organisational development reviews • Environmental scan of provision • Feasibility studies

Focal area	Purpose of research	Key research questions	Possible research methods/approaches
	researching national coordinating structures (such as DHET) as well as various structures within the many organisations (public and private) who provide career development services.	funded to do what? • How is access to career services structured in rural areas? • How is access to career services structured for people with disabilities? • To what extent can career services be brought together at a single point of delivery? • How is social media influencing delivery of career services? What potential exists in the use of social media? • What successful models exist for the delivery of career guidance, education and development? • What role is played by NGOs in the provision of career guidance and counselling? How is their role structured and funded? • What can be done to massify the career assessment process whilst still maintaining quality? • What is the potential of public libraries as conduits for information on careers and provision of career guidance?	• Desktop review
Information to support	This research will identify and bring together all available	• What are students' attitudes towards different occupations?	• Secondary research • Meta-analysis

Focal area	Purpose of research	Key research questions	Possible research methods/approaches
career development	information that can assist in the provision of career development services. This is likely to involve secondary research as other structures have responsibility for primary research. The intention is to provide career development practitioners with information that will strengthen their role in providing advice and guidance.	• What information do Grade 9 students require to help them make decisions about subject choices? • What information do Grade 10 – 12 students require to make choices about their post-schooling options? • What information do post-Grade 12 persons require to assist them to make choices about their careers? • What information do student support services at universities and TVET colleges require in order to help them to provide guidance to students? • What information do NGOs and other organisations working with youth and communities require in order to support their work? • How can research on the occupations that are in demand in the various economic or industrial sectors, and skills that are most in demand in the different provinces inform provision of career development information and services in schools and tertiary institutions? • What can service providers of career development information and services learn from research on key factors that inhibit qualified people being absorbed into jobs?	• Surveys • Interviews • Narratives • Documentaries

Focal area	Purpose of research	Key research questions	Possible research methods/approaches
		• What social and economic changes affect employment and skills? What interventions are in place to address these changes? • What occupational skills are needed for the country's growth? • What are 21st century skills? • What programmes are available to support different career choices? • To what extent are school, college and university learners and students aware of occupations that are in demand? • What is the match between qualifications and occupations for new graduates? • Where are graduates finding employment and in which occupational categories? • What new occupations are emerging – e.g. careers for the green economy)? • How effective are the current platforms used to provide information about CDS? • How effective are the materials that have been developed for CDS? How are they utilised and how much are they utilised?	

Focal area	Purpose of research	Key research questions	Possible research methods/approaches
		• Are the key messages signalled by CDS materials appropriate?	
Information systems and processes	This research will help improve the systems and processes that are needed to both provide and support career development services.	• What information systems are in place to support career development? • To what extent are various information systems linked together? • How user friendly are the various databases and web sites containing career development information? • What information systems are available to strengthen the information to and co-ordination of career development?	• Qualitative inquiry through interviews and focus groups • Usability testing of websites • Heuristic evaluation of websites
Human resources	This research will identify the various occupational categories involved in career development work and help policy makers make provision for the employment and deployment of appropriate staff.	• What occupational categories are engaged in careers development activities? • Are there appropriately qualified people in place to provide career development services? • Where there are not adequate numbers employed what are the reasons for this? • To what extent are funding mechanisms and budgets enabling the employment of required staff? • Are staff employed to provide career development services deployed in the most cost effective manner? • Is there a recognised career path for career development	• Skills audit • Situation analysis • Cost benefit analysis

Focal area	Purpose of research	Key research questions	Possible research methods/approaches
		practitioners? • What is a career development "professional"? • To what extent is career development the responsibility of occupations whose main focus is not career development? • Where there are staff engaged in career development whose main focus is not career development (such as teachers and youth workers), how effective are they in providing that service? • Do such staff have appropriate time, skills and support to be effective? • How much time do educators in schools, colleges and universities devote to career development (e.g. time spent by life orientation teachers)? • What standards exist and how are they promoted and monitored? • What management arrangements are in place to ensure that required services are provided? • What is the size of the private CDS sector? What is their form, size and shape?	
Human	This research will help put in	• To what extent are clearly defined career paths in place	• Situation analysis

Focal area	Purpose of research	Key research questions	Possible research methods/approaches
resource development	place effective learning pathways and education and training programmes to enable individuals to become competent in career development practice.	for career development practitioners? • What are the main learning pathways to become a career development practitioner? • What programmes are there in colleges and universities to support career development? • To what extent are educators qualified to provide career development information? • To what extent is there articulation between educational levels in relation to qualifying to engage in career development? What are the articulation challenges? • What are the gaps in education and training provision to support career development? • Of the programmes available which are the most relevant to the development of career development practitioners?	• Audit of programmes on offer • Qualitative studies
Service delivery on the ground	This research will support improvements in how career development services are being provided, what works and what does not work. The purpose of the research is to inform improvements in	• How is career guidance experienced by learners in schools, college students, university students and unemployed people? • How is policy and strategy communicated to the "street level bureaucrats" – i.e. those who deliver services on the ground? • How should career development be understood in early	• Narratives • Curriculum review • Surveys • Interviews and focus groups • Case studies • Longitudinal studies

Focal area	Purpose of research	Key research questions	Possible research methods/approaches
	practice.	childhood development programmes? • What informs subject choice selection in Grade 9? • Why do students select a particular programme of study in PSET? • What access is there to career development in secondary schools? • What is the appropriate schooling level (year) to introduce career development in school? • To what extent are learners in schools aware of what they need to study to access their preferred careers? • What is contained in the schooling curriculum in relation to career development and how is it being taught? Number of hours set aside for CDS in the curriculum across the different grades? • What is the quality of provision in schools? • Which programmes targeted at unemployed youth are working and what is their key to success? • How effective is career development within correctional institutions? • What career development services are available for people with disabilities? To what extent are people with	

Focal area	Purpose of research	Key research questions	Possible research methods/approaches
		disabilities accessing services? • How do individuals experience career development over their life time? • Are career development services (practitioners and access points) available throughout the country? Are there geographical areas where provision is weaker than in others? • To what extent are career development services supporting learners in ECD centres, schools, colleges and universities? Where are the strengths and weaknesses? • How do employed people access career development services and how effective are such services? • To what extent are those not in education, training or work able to access career development services? • What are the challenges experienced in accessing career information and guidance particularly in rural areas? • Do the tools or instruments set out in the policy achieve their intended outcomes? • How effective are psychometric tests in assessing student potential for specific careers? How widely are they used? How much do they cost?	

Focal area	Purpose of research	Key research questions	Possible research methods/approaches
		• Over time what relationship exists between career guidance provided and success in the labour market? Should be part of services • Which programmes are providing the most effective career development? – should be part of services • What programmes are most cost effective? • To what extent does career development support: retention at all levels of the education system; success at university; success of learners from poor backgrounds; career awareness; learner career decision making? • Comparing cohorts of learners from different backgrounds and contexts what can be done to improve the effectiveness of career development services for disadvantaged groups?	
Culture and values	This research will support the development of an indigenous career development service and help build an understanding of the cultural and geographical factors that shape implementation of	• What are the cultural issues that impact on career guidance? • What values underpin the way that career guidance is provided and received? • What can be done to develop an indigenous body of knowledge on career development in South Africa and Africa?	• Exploratory studies • Feasibility studies

Focal area	Purpose of research	Key research questions	Possible research methods/approaches
	policy.	• What is the culture that career guidance is seeking to build? • How has the country's history impacted on career choices, and how can career development services assist in redressing this legacy? • To what extent are traditional or cultural practices impacting on career choices? How can career development practitioners work with such traditions and practices to improve practice?	
M&E	This research supports the monitoring and evaluation of career development as it is being implemented.	• Does the DHET have a monitoring system for CDS? • What information does it collect? How does it collect this information? Where is this information presented? Where is it available? What indicators are used to track the effectiveness of CDS? • What evaluations have been undertaken? • What impact studies have been undertaken? • Who is doing what research? (Volume + budgets) • What are the findings from M&E and research about the implementation of existing CDS policies? • How are services being quality assessed and monitored? • What evaluation is being done in relation to performance	• Longitudinal studies • Trend analysis • Cost benefit analysis • Implementation evaluation

Focal area	Purpose of research	Key research questions	Possible research methods/approaches
		and impact? • How does M&E feed back into policy and strategy? • What theories can be developed to research and evaluate career development services?	

8. Research methodologies

As highlighted in the table above, various research methods are suitable for these research areas, for example, narrative methodologies allow people to tell their own stories, quantitative methods can enable statistical interrogation of impact, surveys that enable collection of large quantities of data, and in-depth interviews can enable deep engagement with respondents that lead to thick descriptions. Student voices and those who are NEET are of particular importance. The methodology used must be fit for purpose and employ enough rigour for evidence to be credibly used for policy level decision making. There is a particular need for secondary research, as there is a lot of research that has been conducted into schooling and post-school education and training, including career development, but which needs to be studied for specific career development data and information. There is also potential in meta-evaluations that can crystallise the findings of many studies and locate them within an accessible platform that is relevant to career development. Analysis of regular large-scale data collected by other bodies and agencies (e.g. StatsSA, National Income Dynamic Study, SASAS etc.) is important.

9. Implementation of the research agenda

The implementation of the research agenda will be a joint effort, with DHET playing a leadership and coordinating role, and other stakeholders from national and provincial government, municipalities, universities, consultancies, NGOs, youth organisations, donor agencies and the private sector collaborating with DHET as they are also beneficiaries of this research. Table 2 maps out stakeholders who will be involved in implementing the research agenda. These stakeholders include government departments and other organs of state, provincial departments, municipalities, sector education and training authorities, higher education institutions, and TVET colleges.

Table 2 Career development stakeholder analysis

Department/Institution	Role in career development
Department of Basic Education (DBE)	Responsible for early childhood development and schooling curriculum on career development. Life orientation is supposed to cover career guidance.

Department/Institution	Role in career development
Department of Higher Education and Training (DHET)	Skills Development (SETAs, National Skills Authority, accreditation processes, HRD Council) is located in the DHET. DHET therefore has responsibility for planning and implementation of skills development, a major aspect of career development.
Department of Public Service and Administration (DPSA)	The DPSA is responsible for policy and policy frameworks for national and provincial government, including HRD strategy. They therefore have a crucial role to play in career development for public servants employed in government.
The National School of Government (NSG)	The NSG is responsible for building an effective and professional public service through the provision of relevant, mandatory training programmes. Its focus areas are leadership training, induction programmes, and in-service learning and development programmes.
Public Service Commission (PSC)	PSC monitors the performance of the public service and identifies interventions required. It has played an important role in developing manager competency profiles which are the basis for career development interventions for managers.
Department of Arts and Culture (DAC)	DAC is responsible for libraries and the use of ICT within libraries. Libraries are an important source of information for careers. The City of Johannesburg offers career guidance services in libraries.
Public Services Sector Education and Training Authority (PSETA)	PSETA plans and promotes HRD programmes for the public service and quality assures such programmes.
Education, Training and Development Practices SETA (ETDP SETA)	ETDP SETA has 200 career development interns in TVET colleges.
Local Government Sector Education and Training Authority (LGSETA)	LGSETA plans and promotes HRD programmes for local government and quality assures such programmes.

Department/Institution	Role in career development
Development Bank of Southern Africa (DBSA)	DBSA assists municipalities with HRD, through the DBSA Vulindlela Academy. Vulindlela develops programmes for municipal managers.
National Treasury	National Treasury examines financial capacity challenges stemming from Auditor General reports and monitoring of spending, identifies capacity building challenges and solutions. NT actively engages in the development and delivery of Municipal Finance Management (MFMA) related training.
Department of Labour (PES)	Advice and guidance is provided via DoL offices.
Department of Correctional Services	DCS provides career development services in correctional services and rehabilitation programmes.
Department of Cooperative Governance and Traditional Affairs (COGTA)	COGTA at national and provincial level has overall responsibility for HRD and capacity building in municipalities.
Department of Planning, Monitoring and Evaluation (DPME)	DPME is responsible for outcomes 1 and 5, education and skills which are two core areas of the career development trajectory.
Department of Science and Technology (DST)	DST focuses on SMT careers which are important for national economic development.
South African Local Government Association (SALGA)	SALGA is the representative organisation for local government and leads municipalities in terms of capacity building, providing guidance to organisations such as LGSETA, DBSA etc.
Provincial training academies	There are provincial academies in the Western Cape, Gauteng, KZN and Free State as well as LOGOLA for local government. These are responsible for training of public service officials. They also provide bursaries and maintain databases of NEETS and others and aim to assist them to access employment.

Department/Institution	Role in career development
Human Resource Development Council of South Africa (HRDCSA)	One of the HRDCSA's responsibilities is to build the human resource base required for a prosperous and inclusive South African economy and society.
Research institutes	Conducting labour market research, e.g. by organisartions like the HSRC.
National Youth Development Agency (NYDA)	Advisory services to young people - unemployed youth in particular.
South African College Principals Organisation	The organisation of advice to TVET college students.
Higher Education South Africa (HESA)	The organisation of advice to university students.
National Government Department HR directors	HR directors have responsibility for training in their respective departments.
Provincial HR directors (MEC offices)	Provincial HR directors have responsibility for training and skills development in their respective provincial departments.
Municipal HR managers and skills development facilitators	These people have responsibility for training and skills development, in their respective municipalities.
Higher education institutions	HEIs offer career guidance services as part of student support services.
TVET colleges	TVET colleges offer career guidance services to their students.
Sector Education and Training Authorities (SETAs)	SETAs prepare career guidance booklets; provide funding for studies; and conduct sector specific research for skills development planning.
Non-governmental Organisations (NGOs)	NGOs provide information and guidance especially in rural areas and areas with limited access to career guidance services.
Municipalities, especially metros	They offer bursaries based on identified critical and scarce skills, and they offer opportunities for students to conduct

Department/Institution	Role in career development
	research.
South African Qualifications Authority (SAQA)	SAQA partnered with DHET to set up and oversee the Career Advice Services project.
Other	All organisations doing research on career development who are interested in collaborating with DHET.

Stakeholders can play different roles, according to their availability, including:

- Sharing best practice and expertise
- Sharing established networks
- Reviewing research proposals
- Mentoring students
- Sharing research that is being conducted for personal development
- Consuming the research that is being produced
- Offering evaluation services
- Quality assuring research outputs.

DHET will take the lead to map out research priorities in the short and medium term, and communicate these to stakeholders. Collaboration will take commitment from all those involved. The CDS unit in the DHET will work closely with the research coordination unit of the Department to ensure that research is not duplicated and that resources are usedefficiently. The CDS unit will participate in the research forum on post-school education and training (PSET) which is comprised of all DHET entities (SETAs, CHE, UMALUSI, SAQA, etc.).

10. Funding of research

In the same way that the implementation of the research will be a collaborative effort, funding of the research should come from many sources. The Department of Higher Education and Training will fund research in relation to policy and strategy. Universities will fund research aimed at building knowledge in the area of career development. Sector Education and Training Authorities will fund research related to the identification of occupations in demand (scarce skills) and learning pathways for these occupations. All implementation structures will be responsible for monitoring career development and evaluating the impact of their work.

Efforts will be made to seek private sector funding for research into industry career paths. Various stakeholders will be approached to support the establishment of research chairs in universities and to build interest in careers development as an area of study at Masters and PhD level.

In its engagement with stakeholders implementing new projects, DHET will advocate budgeting for research and evaluation as part of a dedicated way to mainstream research and evaluation into project implementation.

11. Knowledge management

Research is best utilised when it is relevant, current and accessible. As such, the research outputs from the research agenda, including instruments, design protocols, research and evaluation guidelines and reports will be shared timeously through multiple repositories accessible from the DHET website. Sharing of research will occur in several ways including publications, conferences, seminars, email circulation etc. It is important that this research is packaged in fit for purpose ways to reach various beneficiaries, e.g. students, funders, career development providers etc. Different channels should be used to share research to reach multiple users of the research. Currently, all research more broadly on the post-school education and training (PSET) system can be accessed via the LMIP website, currently held by the HSRC but which will move over to DHET in 2015. Research on career development can also be housed and accessed from this platform.

12. Monitoring and evaluation

A monitoring and evaluation framework will set out the results chain for the research agenda, and indicate monitoring and evaluation indicators. Impact evaluation questions will be built in as part of the implementation plan for the research agenda. Internal review as well as external independent evaluation will form part of the evaluation process and accountability to stakeholders.

13. Conclusion

This research agenda outlines the vision for career development research that can enable a better understanding of how various aspects of career development at various stages of the education and training system can contribute to better efficiency and lead to effectiveness in the provision of services. A broad outline of research areas and themes has been developed

to provide direction in pertinent research that would be relevant and credible for use to inform strategic interventions.

Research areas and themes presented in this research agenda are not exhaustive, but provide some guidance on the country's current and immediate priorities, in line with national developmental goals. While some research or evaluation topics and questions may be commissioned by DHET, others may be pursued by other stakeholders in the career development environments, including universities, SETAs and other government departments.

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Annexure 1: Literature review on South African research on career development

List of Acronyms

Acronym	Explanation
AgriSETA	Agricultural Sector Education Training Authority
ANA	Annual National Assessments
CAPS	Curriculum and Assessment Policy Statement
CHE	Council on Higher Education
CPD	Continuing Professional Development
DHET	Department of Higher Education and Training
DoL	Department of Labour
ETDP SETA	Education, Training and Development Practices Sector Education and Training Authority
FASSET	Finance and Accounting Services Sector Education and Training Authority
HESA	Higher Education South Africa
HRDSA	Human Resource Development Strategy of South Africa
HRM	Human Resource Management
HSRC	Human Sciences Research Council
IS	Information Sciences
LMIP	Labour Market Intelligence Partnership
MBSA	Master Builders South Africa
MoUs	Memoranda of Understanding
merSETA	Manufacturing, Engineering and Related Services SETA
MQA	Mining Qualifications Authority
MRC	Medical Research Council
NANEs	Newly-appointed nurse educators
NBI	National Business Initiative
NCAP	National Career Advice Portal
NEEDU	National Education Evaluation and Development Unit
NEET	Not in education, employment or training
NGOs	Non-governmental organisations

NSDSIII	National Skills Development Strategy III
NYDA	National Youth Development Agency
PIRLS	Progress in International Reading Literacy Study
SACHED	South African Committee for Higher Education
SACMEQA	Southern and East African Consortium for Monitoring Educational Quality
SACPO	South African College Principals Organisation
SAFCEC	South African Forum of Civil Engineering Contractors
SANBI	South African National Biodiversity Institute
SAQA	South African Qualifications Authority
SETA	Sector Education and Training Authorities
SSPs	Sector Skills Plans
TIMMS	Trends in International Mathematics and Science Study
TVET	Technical, Vocational Education and Training

1. Introduction

Career development in South Africa is understood as a lifelong process of activities that inform and support the career trajectory. Career development is an integral aspect of the education and training system, and it is guided and supported by multiple services and programmes including the provision of career information, career advice, career guidance, career counselling and career planning (Department of Higher Education and Training (DHET), 2014).

The South African career development landscape has been characterised by fragmentation in relation to *thinking about, organising, managing and providing career- and labour market-related information, career guidance and career counselling services* (South African Qualifications Authority (SAQA), 2012). Recently, the Department of Higher Education and Training (DHET) has taken the lead in career development and is collaborating with SAQA in the establishment of a comprehensive career development system for South Africa. This career development system is informed by four main aspects (Keevy, Steenkamp, & West, 2012):

- The insight gained from the development and implementation of the South African National Qualifications Framework (NQF) especially the focus on access, success, integration, progression and quality.
- The career development model that is being pursued is influenced by the experience of current SAQA staff and associates in the inclusive career guidance initiative established by Shirley Walters and other non-governmental organisations (NGOs) such as the South African Committee for Higher Education (SACHED) Trust in the 1950s to provide non-racial career information and counselling services to disadvantaged groups who could not otherwise access the services offered by the then government.
- SAQA's work in the development of the career development service is also informed by the findings of Flederman's comprehensive review of career development (2009, cited in Keevy, Steenkamp, & West, 2012). This review painted a picture of an uncoordinated and inequitable career development system, which until the work of SAQA and the Sector Education and Training Authorities (SETAs) was only accessed by a few.
- The emerging South African model of career development services draws on existing models from South Africa and other international models informed on principles of access, inclusion, feasibility and affordability, for example, *Next Step* in the United Kingdom and *Careers New Zealand*.

Thus far the work on the career development service has adopted an evidence-based approach - several pieces of research have been commissioned to inform the development of the service, and the career advice service which constitutes part of the larger career development project has been evaluated. The development of a national research agenda forms part of the work for the career development service. Mzabalazo Advisory Services has been commissioned to develop this research agenda.

This report provides a preliminary overview of available information on career development as it is currently organised and accessed in South Africa, to explore the themes, theories, and methodologies that have been used in the various research documents accessed. This is done in order to identify possible areas for further research that can be used to inform career development and improve the development of a responsive and effective career development service. The report starts off with an outline of the methodology for the review, and then provides a broad overview of the need for a career development service in South Africa before presenting and discussing current provision and the research studies. The research findings are organised according to themes, and theoretical underpinnings and methodologies used for the research studies are briefly discussed.

2. Methodology

This report was compiled through a literature review, and forms an important stage in a study to develop a research agenda for career development in the country. The literature review will inform the research questions for interviews with stakeholders. Resources for the literature review included peer reviewed journal articles and theses sourced through the SABINET electronic database of South African e-publications, as well as other research reports sourced through the internet. It is expected that more pertinent sources will be identified during the course of the project. These will be reviewed and integrated to improve the report.

The review does not touch on policy as this has been adequately covered elsewhere in reports developed as part of the career development service project (see for example SAQA environmental scan, 2012; DHET survey of career development services, 2014).

3. Rationale for career development services in South Africa

There is overwhelming evidence suggesting that the country is experiencing huge challenges in relation to education, appropriate labour market skills and employment, all areas

concerned with career development. South Africa has a high unemployment rate, currently 25.5%. Of this figure, unemployment is higher among youth and women. In the second quarter of 2014, the unemployment rate among women was 27,5% - 3,7% higher than among men. The unemployment rate of youth was about 20% higher than that of adults (36,1% compared with 16,3%). In June 2014, there were over three million youth between the ages of 15 - 24 who were not in education, employment or training (NEET). StatsSA concludes that there is a strong association between unemployment and lower levels of education - unemployment rate decreased with education. Unemployment was lowest among tertiary education holders and highest among those whose highest educational level was below matric (StatsSA, 2014). The high levels of unemployment particularly among the youth and women suggest that career development interventions are needed to possibly assist the unemployed with career development interventions before they become discouraged work seekers.

As much as educational qualifications are an important predictor of unemployment and employment, good quality qualifications are difficult to obtain, as the education system from schooling to post schooling is faced with major quality challenges. South Africa is lagging behind in the production of science, maths, engineering and technology graduates despite significant investment in the basic, post school, and skills development system. Deficiencies in the schooling system are evidenced through local Annual National Assessments (ANAs) and regional and international benchmarking tests, like the Southern and East African Consortium for Monitoring Educational Quality (SACMEQ), Trends in International Mathematics and Science Study (TIMMS) and Progress in International Reading Literacy Study (PIRLS), where South African learners perform poorly and are almost always at the bottom of the scale. The poor performance of learners in these tests also highlights perpetuating historical disparities in the educational system, where black learners perform poorer than their white peers (Spaull, 2013). Poor schooling outcomes persist to higher education studies. Recent analysis of poor performance in higher education has largely attributed this failure to the articulation gap between the schooling system and university. The Council on Higher Education (CHE) report on "*A proposal for undergraduate curriculum reform in South Africa*" (CHE, 2013) identifies a major cause of student under preparedness in higher education as "the shortcomings and inequalities" in the public school system.

Many explanations have been proffered for poor performance within the schooling system, including dissonance between language of instruction and home language, poor use of the ANAs for remediation, and poor literacy skills that affect learning in all other learning areas

(the National Education Evaluation and Development Unit (NEEDU), 2012). Poor learning outcomes are being attributed to low teacher quality, particularly in mathematics, English, and science (NEEDU, 2012, Spaull, 2012 & 2013).

Poor teaching has been ascribed to unqualified and under-qualified teachers in the system who possess poor subject knowledge. Many research studies and evaluations have highlighted that some South African teachers know very little about the subjects that they teach. In the SACMEQ III evaluation conducted in Grade 6 language and mathematics in 2007 (DBE and SACMEQ, 2010; Spaull 2012), of the 14 countries under study, South African teachers performed poorly in both maths and language. In the reading test, teachers performed poorly in questions that required higher order cognitive ability, faring better in questions that required straightforward inferences. Other studies have also shown how teachers struggle with teaching content in science at secondary level (Jita & Ndlalane, 2009; Taylor & Vinjevold, 1999).

South Africa has low and inequitable participation rates in higher education, relative to its own policy goals and other comparative developing countries. Graduation and throughput rates are low - recent cohort studies highlight that only 27 per cent of undergraduate students complete their studies in the minimum time and that only about half of the students entering higher education will ever graduate. There is a huge articulation gap between school and university which is causing transition challenges impacting student success in university. Some of those who manage to get to university are not sure what they want to do, and usually do so because tertiary study is a route to funding, regardless of the career prospects from the option of study (Lewin and Mawoyo, 2014).

Since 2000, the Sector Education and Training Authorities (SETAs) have been key drivers of the implementation of the Skills Development Act, 1998. The SETAs have undergone several changes in their configuration, including mergers which resulted in 25 SETAs reducing to 23 and subsequently to 21 currently. In addition to the SETA-driven skills development initiatives, there are other skills development programmes taking place in the higher education sector, as well as in workplaces, particularly in the public sector. Despite the multiple and dedicated systems of skills development at SETA level, in the higher education sector, and in the workplaces, there are still huge challenges in meeting the much needed scarce and critical skills for the economy.

Multiple explanations have been provided for the unsuccessful transition from university to work despite the many efforts on work readiness programmes. These explanations have

attributed the high unemployment levels to the mismatch between industry needs and the graduates that are being produced in universities. Work readiness programmes aimed at preparing graduates to be successful in the workplace are focused on graduates from universities and Technical, Vocational Education and Training (TVET) Colleges, and include the National Business Initiative (NBI) partnership between NBI and employers like Aveng, Basil Read, Group Five, Murray & Roberts, and WBHO supported by Master Builders South Africa (MBSA) and the South African Forum of Civil Engineering Contractors (SAFCEC (NBI, 2014). The South African National Biodiversity Institute's (SANBI) Groen Sebenza project is funded through the Jobs Fund, and is based on an "incubator" model aimed at mentoring and training 800 unemployed graduates and matriculants over two and half years to enable them to gain skills and the necessary experience for permanent employment in the biodiversity sector (http://www.sanbi.org). Each of these projects has instituted its own evaluation studies, and the commonality of what these programmes are trying to achieve in relation to career development of youth is not captured systematically.

4. Strategies for addressing career development

4.1 Schools and learners

The picture painted above suggests that career development is a much needed and critical intervention that can:

- Improve persistence in schooling because learners can see the purpose of being in school;
- Direct learners to make more informed choices about high school subjects and university courses of study;
- Promote better transition between school and university because students can clearly see why they are studying and that education is a journey towards their aspired lives and jobs;
- Motivate students to succeed in university, because they are motivated to achieve a life where they can find meaningful employment that aligns with their interests and capabilities;
- Help reposition the unemployed, especially the NEETs to become more relevant to the needs of industry and reverse a situation where there are many jobs that cannot be filled by unemployed graduates; and
- Enable those who are already in jobs to see careers as dynamic, requiring lifelong learning to stay relevant to labour market changes.

This requires a focus on career development interventions from early childhood to adult life, through both explicit and informal curricula. In the South African school curriculum which is captured through the Curriculum and Assessment Policy Statement (CAPS), scope for career development guidance exists through the Life Skills curriculum which is organised in all phases around the themes: beginning knowledge (only in the foundation phase); and creative arts, physical education, and social and personal wellbeing (in all the phases). The Grade 10 – 12 CAPS for Life Orientation programme caters for career development (SAQA, 2012). However, it is not clear from the CAPS how career awareness is developed in foundation and intermediate phases. Also, it is not known how effective the career components are in grades that focus on career guidance. This would be useful knowledge to have, in order to determine appropriate intervention should this be required.

Schools are supported in the area of career development by a number of other stakeholders. For example, higher education institutions (HEIs), SETAs, Higher Education South Africa (HESA), the National Youth Development Agency (NYDA), non-governmental organisations (NGOs) and private companies take responsibility for visiting schools to provide career talks and organising career events and exhibitions. HEIs, HESA, SETAs and private companies distribute career-related information to schools. PACE Career Centre and the Education, Training and Development Practices Sector Education and Training Authority (ETDP SETA) train Life Orientation teachers (courses accredited by the ETDP SETA) to improve their knowledge and skills regarding career guidance. SAQA is preparing a proposal to forge partnerships towards career counselling in schools, to place more focus on career guidance in the curriculum, and to possibly have dedicated counsellors available in schools (SAQA, 2012). If this partnerships approach gets implemented, it will be useful to monitor it for adaptive management, as well as evaluate it against specific indicators determined upfront during project planning and initiation.

4.2 TVET colleges

SAQA has signed Memoranda of Understanding (MoUs) with TVET colleges to build capacity and enhance the resources of walk-in centres at their campuses. This project is still in progress. The South African College Principals Organisation (SACPO) is currently engaged with industry in an initiative towards Continuing Professional Development (CPD) for college lecturers and students. HESA and SETAs distribute career-related information to TVET colleges. The ETDP SETA is currently supporting some 200 interns to be located in the country's 50 public TVET colleges, primarily focused on the provision of career related information (SAQA, 2012: DHET, 2014).

4.3 Universities

There are a range of stakeholders working together to provide information and advice within universities. Most university academic development units have a Career Advice Centre that provides information to students. Universities attempt to prepare final year students for work through work readiness programmes with relevant industries (SAQA, 2012; DHET, 2014).

4.4 Youth

The NYDA is working to provide services to unemployed young people. For example, the NYDA has a partnership with SAQA and the Manufacturing, Engineering and Related Services SETA (merSETA) in terms of assistance with information and the delivery of career guidance services at their full-service offices (DHET, 2014).

4.5 Advisory services to new entrants to the labour market

There is a network of labour centres nationally that are part of the Department of Labour (DoL) Employment Services. The intention is that up-to-date labour market information should be available – for example, scarce skills occupations, and that support is provided to unemployed people to gain access to jobs or to programmes that enable access to such jobs. The DoL attempts to work with other departments such as DHET and the Department of Cooperative Governance and Traditional Affairs (COGTA) to ensure the flow of up-to-date information and the accessibility of the information in localities using municipal resources and locations such as libraries and community centres. In collaboration with the DTI information on business start-up is also potentially available from these outlets (SAQA, 2012; DHET, 2014).

Various SETAs are engaged in providing information on careers within their economic sectors. Career guidance is a key objective of National Skills Development Strategy III (NSDSIII) and a requirement when SETAs are developing their sector skills plans (SSPs) and strategic plans (SAQA, 2012; DHET, 2014).

It is evident that there are already good examples of cooperation and partnerships between stakeholders that are involved in career guidance-related activities. However, there is a need to develop more specific coherence in terms of resources, communication and collaboration.

Rigorous research into specific career guidance activities and their impact will be a key element of the research agenda.

4.6 Cross cutting supporting systems and programmes

While each education sector has its own dedicated career development services and programmes, there are a range of programmes, systems and processes in place to support the provision of guidance services to multiple sectors in the education system. There are various call centres in SAQA and in the SETAs. There are forums where stakeholders exchange information and collaborate on projects. There are expos and fairs where stakeholders share resources and enable large numbers of young people to access available information.

5. Career development research themes

In order to develop a sound research agenda on career development, it is important to know what research has been conducted in the area, to evaluate what the gaps are and what the potential priorities are for the development of the country. The report on the literature review will be organised according to themes constituting the research, theoretical frameworks that have been used, and methodological approaches. A research agenda for carer development is critical to provide an evidence base to influence policy and improve practice.

The themes that are used to cluster research studies here are emerging themes, and will be developed, refined and populated more through further research.

5.1 Career decision making

An expected aspect of career development is choosing a career. Some people are more successful at this than others, knowing exactly what they want to do and working towards it, while others count on chance. Access to information is integral to career decision making. According to Botha and Mostert (2013, pp.503 - 504), lack of information is detrimental and takes on many forms: *lack of information about the decision-making process; lack of information about the self; lack of information about occupations; and lack of information about ways of obtaining information.*This lack of information can lead to a misguided choice of career, and much unhappiness for the individual who ends up in a career that may not motivate them. Poor achievement in university can also be a source of career uncertainty.

Students who are driven make an effort to find information about careers. De Bruin and Cornelius (2011) found that there is a strong association between self-directed learning (the process "in which the individual is primarily responsible for the planning, implementation and evaluation of his/her learning") and career decision making. In their study which explored the extent to which 267 students studying through an extended programme in a South African university were able to make decisions about their careers, they concluded that students who measure high on self-directed learning find it easier to make career decisions. The ability of these students to learn about a subject on their own was the same ability that enabled them to explore information about careers and make an informed choice. This finding also holds true in van Staden & du Toit's study (2011) which surveyed 266 students on a Masters of Commerce course at the University of Johannesburg and found that these students believed lifelong learning was important and that they were each responsible for upgrading themselves through further education and training. Both these studies suggest that high achievers take responsibility for their own career development. And the under-achievers need more information and guidance on career development.

While some students are self-directed enough to make their own career development decisions, the reasons why they choose certain careers over others may lead to poor job fit and satisfaction, lack of enthusiasm for the job, and therefore poor productivity. Coldwell and Callaghan's study of 130 second and third year students in Human Resource Management (HRM) and Management (2013), highlight that career decisions are made before settling on a career and two key points at which this is made are subject choice at high school and in university. Yet, during that time, most people are not yet aware of their career anchors. As a result, decisions are made on perceptions of a career (external factors) rather than individual strengths, capabilities and interests (internal factors). The study found that a strong association between interest and subject choice was evident only for Information Sciences (IS), and that the other five subject choices were not necessarily made on the basis of interest in the subjects. More broadly, the findings suggest that students select majors that support particular business careers based on perceived aptitudes; perceived job, earning and career prospects and,

> *more tentatively, the career anchors of security/stability (Finance, Economics, Insurance & Risk Management, Marketing), technical/functional competence (IS and Management), entrepreneurial creativity (Management) and service/dedication to a cause (HRM). Students selecting Finance, as well as Economics and Insurance & Risk Management appear to have security and stability anchors, possibly arising from specific socio-economic circumstances and the prevailing high unemployment rate in South Africa. These potentially financially rewarding specialisations are chosen by*

> *students to find a way out of the precarious socio-economic conditions many of them currently face. This is an overriding goal that may subordinate personal interest in the job itself. Those with lesser numerical and/or verbal aptitudes perhaps see their career objectives more in terms of interest in the job itself (IS) and service/dedication to a cause* (Coldwell & Callaghan, 2013, p.255).

Context has been identified as an important predictor of career development. People's career choices are to a degree influenced by their families and communities. In the career development research field, although there is considerable research on family influence on career decisions, there is a dearth of research investigating the impact that a sibling with a learning disorder has on a developing individual's career development, career meaning making as well as choice of study in higher education and career prospects (Alexander & Dlamini, 2012). Alexander and Dlamini's case study of a 14 year old boy living with a younger sibling with a disability concluded that the 14 year old's motivation to do better in cricket and study for a sports management degree was influenced by his sense of responsibility towards his sibling. Mhlongo and O'Neill's study of family influences on career decisions by black first-year UKZN students (2013) also shows how in the absence of career guidance in schools, families became anchors in the career decision of students from disadvantaged students. Albien's study which explores career decision making of Grade 12 learners at a high school in Kayamandi, in the Western Cape (2013) also emphasises the importance of social context in career decision making. The study concludes that social level influences, particularly family support, had the most prominent influence on career decision making, although parental low occupational status limited parents' involvement in career planning. Students were also influenced in their career choices by depictions of careers as well as media role models, because of lack or role models with careers to aspire to, in the community.

5.2 Evaluations of career development services

Research evaluating career development services and programmes has focused on evaluating single cases as well as larger programmes with a suite of different services. These studies usually highlight successes and challenges of these programmes and services. Chireshe (2012) conducted a qualitative study exploring the nature of career advice services at a South African university through in-depth interviews with three career advisors in that university. The study revealed that the career advisors' main activities included coordinating orientation for new students, conducting career advisory workshops for students, graduate deployment programmes and sometimes school outreach which involved

high school career guidance visits. The resources utilised by these advisors were limited and included some career brochures and compact discs (CDs) for graduate careers, but these were not located in career counselling centres as the university did not have any. Students had to consult the career advisors in their offices. Only these three advisors were serving the whole university, and they were not qualified in certain areas like using psychometric tests although the tests were available to them. This case study partially paints a picture of challenges experienced in career development services in South Africa which need to be explored. Although the SAQA environmental scan reports that all universities in South Africa have counselling services (SAQA, 2012), what is not known is the focus of these services on career development, their quality, and the challenges that they experience.

An evaluation of a school career guidance project at Alphendale High School employed experimental design and found positive effects of the programme on the experimental group. The programme also improved academic motivation of the control group in a sustained way. The study concludes that a well-designed career guidance programme has the potential to improve learners' career awareness and motivate them academically (Miles, 2008).

An evaluation of a more diverse and far reaching programme is that of the Career Advice Services project which was initiated in 2010 through a collaboration of DHET and SAQA. This project is a national, comprehensive, independent career advice service delivered through multiple channels including mobile phone, telephone, email, SMS, fax, social media, mail, walk-in centres, radio, website, career festivals, career expositions, print media, mobisite, knowledge database, case Database and the National Career Advice Portal (NCAP) (Keevy, Steenkamp, & West, 2012; Uweso Consulting, 2013). The service provides information on careers and career guidance advice, and reaches people in disadvantaged, rural communities, women and the unemployed. An evaluation of this service concluded that it is an effective service because of its accessibility and because it's free; it reaches remote areas and young people between 19 – 35, who form the NEETs, and are a group of particular concern in the country. Significantly, the service also reaches black people, a population group that did not have easy access to such services before the new political dispensation. The diversity of offerings of the service makes it appealing, and users particularly like career festivals and exhibitions (Uweso Consulting, 2013).

5.3 Environmental scan of career services

Two key studies have recently been completed which map career development services in the country. The SAQA *Environmental Scan of Career Guidance Services* (2012) presents

an overview of the status of career guidance services at schools, TVET colleges, universities, SETAs, private employment etc. The DHET *Report on the Survey of Career Development Activities 2013/2014* (2014) focuses on providing a broad overview of career development services in the country so as to identify areas of duplication, identify gaps, and share lessons among stakeholders. The services identified by this study include:

- Career exhibition services being hosted or which have been hosted by 10 government departments and entities and three SETAs. Life orientation teachers attend these exhibitions and festivals.
- Career booklets, guides and resources developed by SETAs and government departments.
- Career videos – five SETAs have developed videos: the Mining Qualifications Authority (MQA), the Agricultural Sector Education Training Authority (AgriSETA), the Finance and Accounting Services Sector Education and Training Authority (FASSET), and the Manufacturing, Engineering and Related Services SETA (merSETA).
- Provision of career advice by government departments and SETAs. Notably, the ETDP SETA has 200 career development interns deployed at TVET colleges.
- Bursaries, learnerships and internship programmes are available as part of the career development services.

5.4 Career development processes

Although career development is a lifelong process that is intended to start in childhood and continue in adult life, the study of career development among children has been limited (Watson & McMahon, 2005). Yet, career development of children has been recognised as a precursor for later adolescent career development anchoring (Watson & MacMahon, 2007). Watson and McMahon's literature review of how children develop career identities (2005) concludes that most studies establish gender differences in children's career behaviour as a consequence of career development learning, but they do not examine the process through which this takes shape. Further, the research focuses on where children are at and not the dynamic nature of changes in identity of children as they grow through their lives - agency and change and development are not addressed.

Watson and MacMahon highlight that there is a limited focus on research on children's career development in South Africa, citing that *only 14.8% of articles published in the South African Journal of Psychology between 1999 and 2003 represent this developmental span* (Macleod, 2004, cited in Watson & MacMahon, 2007). They also emphasise that there is

more discussion than research on the role of career education in promoting career development of children. Of the limited research that has been conducted, indications have been that children fail to make connections between their school experience and the world of work (Hutchings, 1996; Johnson, 2000, cited in Watson & MacMahon, 2007).

Using the Career Awareness Survey, Watson and MacMahon's own study (2007) explored whether learners can make connections between school and the world of work. The survey was administered to 497 South African and 365 Australian upper primary public school students from Grades 6 and 7 in three South African and six Australian urban schools. The study found that most of the children could identify school activities that might help prepare them for the jobs that interested them. The connections made to the children's career interest were related to subjects, topics and activities covered in the school curriculum.

5.5 Mentoring

Mentoring is regarded as a good way of passing on skills by experts to novices and a good way of reproducing the profession. In South Africa, mentoring is particularly important in some fields to address transformation issues (Seekoe, 2014). In her study to explore mentoring programmes available for newly-appointed nurse educators, Seekoe (2014) found that there was no model for mentoring new nurse educators in the nurse training institutions. Seekoe developed a model of mentoring based on reflection, engagement, relationship building and interactional participation between mentor and mentee, for the development of the newly qualified nurse educator.

In response to the shortage of researchers in the country, research councils have resorted to using mentoring models where experienced senior researchers mentor junior interns who have just graduated from university. The Medical Research Council (MRC) and the Human Sciences Research Council (HSRC) are examples of institutions implementing this mode (Mda, 2013). The HSRC not only mentors researchers but also other interns attached to various HSRC work streams like corporate communication. The research interns are identified from areas of scarce skills and channelled into careers in these areas. A specific objective of these internships is the development of people from disadvantaged backgrounds. Mda argues that although this scheme seems to be effective in providing junior researchers the opportunity to publish, its weakness is that it does not guarantee employment after the internship. As a result, interns look for better prospects while they are still doing the internship and leave if these prospects materialise.

In their efforts to grow a new cohort of academics, universities are also looking to mentoring and coaching. At the Vaal University of Technology, efforts to develop students' careers as researchers was framed within a Research Community of Practice model which involved mentoring and external coaching and mentoring. The external group coaching and mentoring programme enabled students' personal and professional growth through the acquisition of new skills, and engagement in intellectual discourse within a supportive environment (Maritz, Visagie & Johnson, 2013).

While mentoring can be an effective strategy, Rankumise (2013) cautions that the success of mentoring depends on the availability of mentors and their possession of the required expertise and skills to be able to mentor novices. Mentoring is also a long and patient process, and mentoring that takes place over short periods of time is not effective. Particularly, mentoring that takes place in the workplace must be supported by management through provision of time to the novice and the mentor for mentoring to take place.

5.6 Sector skills research

Every year, each of the 21 SETAs conducts sector skills research which explores the sector profile in relation to employment, policy imperatives, drivers of change impacting on employment, as well as demand for and supply of skills. From this research, SETAs are able to compile skills demand projections which can be used for career guidance to attract new skills to the sector. A responsive sector skills development strategy is also developed to offer identified training in the form of skills programmes and accredited short and full courses.

5.7 Labour market intelligent partnership

The Labour Market Intelligence Partnership (LMIP) between DHET and the HSRC was launched in September 2012. Its aim is to provide reliable information to the post school sector and the labour market, on skills needs, supply and demand in the labour market so as to enable South Africa to plan better for human resources development. Six themes frame the LMIP (LMIP website: http://www.lmip.org.za/):

1) Labour market analysis, framework and information systems
2) Skills forecasting: the sup0ply and demand model
3) Selected sectoral analysis
4) Reconfiguring the post school-sector
5) Pathways through education and training and into the labour market

6) Understanding changing artisanal and occupational identities and milieus

Looking at the research themes, a concern is whether or not there will be any duplication between the LMIP and SETAs regarding the skills forecasting and sectoral analysis.

6. Theoretical/conceptual frameworks

Some of the research reviewed thus far makes use of career development theoretical frameworks to design the studies and interpret data. Theories are also interrogated in light of the results of the studies. The theories that have commonly been used include:

- Systems theory framework, which enables an analysis of the convergence of the personal and family contexts (Alexander & Dlamini, 2012; Albien, 2013), as well as community and any other contextual factors that can influence career development.
- The theory of 'circumscription' is interrogated in Coldwell and Callaghan's study (2013).
- Interactive model of career decision explores personal, family and community influences in tertiary educational career decision-making (Mhlongo & O'Neill, 2013).

The review will continue to investigate which theories are used and how they are used. Theoretical and conceptual frameworks are important for providing a structured approach to research, and providing a language of description for the research. Research can also be used to develop theory (grounded theory).

7. Methodological approaches

A couple of the reviewed studies have utilised the quantitative cross sectional survey design, which is useful for investigating relationships between variables (de Bruin & Cornelius, 2011; Coldwell and Callaghan, 2013; Botha & Mostert, 2013). Some studies have used online surveys for administering their instruments (van Staden & du Toit, 2011; Botha & Mostert, 2013). Qualitative case studies have also been used to enable in-depth analysis of phenomena (Chireshe, 2012; Maritz, Visagie & Johnson, 2013; Mda, 2013). While literature reviews inform all studies, some studies have focused exclusively on literature reviews (Watson & MacMahon, 2005).

8. Possible areas for career development research

From the reviewed research, the following are potential areas of research for a research agenda. These research areas are focused on the human and resource dimension of career development, with an emphasis on discrete aspects:

- How children develop career identities and learn about careers – this is important to enable an understanding of how children can be exposed to careers in early childhood so that they develop career awareness that they can tap into as they grow into adulthood.
- Curriculum integration – it is not clear how the curriculum addresses career development before Grade 10. This is worth investigation as the school reaches a huge population and international studies have shown that career awareness leads to persistence and academic achievement.
- Quality of career development resources – the DHET report specifies that there is a range of career guidance resources including videos and booklets. It would be useful to determine the quality of these, their reach, and how well they cater for diversity.
- More rigorous impact evaluation is needed of the career advice service, to investigate, over a number of years, the extent to which access to career advice services impacts labour market outcomes, particularly for NEETs.
- Currently, most of the reviewed studies are localised and short term. There is a need to conduct nationwide large scale surveys which enable a regional understanding of career development issues.

9. Institutions engaged in career development research

The foregoing discussion of the career development context and research has revealed that research on career development is being conducted by multiple role players:

- Researchers in universities
- Researchers in government departments
- Research consultancies
- SETAs
- The HSRC
- StatsSA.

This in itself is a strength, as it signals that there are multiple role players with budgets for conducting research on career development. This reduces the amount of research that

DHET has to conduct themselves. A challenge with this scenario of multiple research implementers is duplication and too many small scale studies which do not have the scope to inform national implementation. The challenge is to collaborate with those already engaged in such research to ensure that there is not wasteful duplication, and to find ways of cooperation, for example, adding the indicator “access to career development services” in the StasSA Household Surveys.

10. Lessons for the development of a career development research agenda

One of the challenges in conducting the initial desk research has been the absence of a clear framework for understanding what the focus of the research is. On the one hand this is provided by the TOR for the project and by the various SAQA commissioned research documents. There is a national career development project, which includes a sub-project on qualifications and capacity building, and research should support these. However, there is no clearly defined “system”. If we were studying a Career Guidance Service (something that exists in some countries) then the task would be easier to define. One would unpack the services and identify research to support each part of the service. However, in South Africa, whilst there is a centrally funded “Careers Advice Project” the project is understood as part of a wider “Careers Development System” that is made up of a variety of stakeholders whose roles have been documented by SAQA in various documents such as the 2012 environment scan. What appears to be missing is a shared understanding of what exactly the country is trying to build. The vision is quite clear in terms of what is needed at the level of the new entrant to the labour market but the structure or organisation of the work to achieve the vision is unclear. It is therefore suggested that a key element of the research agenda must be to enable clarity so that:

- firstly, all stakeholders understand the current state of affairs in relation to the vision,
- secondly, they agree the key building blocks of the envisioned system, and
- thirdly, they have available evidence based research to inform incremental improvements or steps towards the vision.

The Mzabalazo Advisory Services research team would like to tentatively suggest the following organising framework for the research agenda.

Focal area	Key research questions
Policy and	What is the policy context or environment?

Focal area	Key research questions
legislative framework	What is the policy "problem"
	What is intended by the policy?
	What laws and regulations are in place?
Strategy	What are the goals?
	What are the strategic objectives?
	What are the key programmes for implementation?
	How will the success of the strategy be measured?
Structure of delivery	Who are the main stakeholders and role players?
	Who is funded to do what?
	What is the "chain of command" that enables strategy to be implemented? How is accountability achieved?
	How is policy and strategy communicated to the "street level bureaucrats"
Human resources	What human resources exist to carry out careers guidance?
	Who in each of the stakeholders and role players does career guidance?
	How do such people go about their work?
	What are the gaps in relation to HR?
	What skills do each of the role players possess?
	What are the skills gaps?
	Who provides training?
	What programmes are in place?
Human resource development	All the research areas highlighted in Section 8 and others pertaining to human development at all levels of human development: • Career development in early childhood • Curriculum integration of career development • Quality of provision • Rigorous impact evaluations designed at start of projects • Diverse methodologies for studies including longitudinal studies
Service delivery on the ground	How is career guidance experienced by learners in schools, college students, university students and unemployed people?
	To what extent does the "client" experience match policy goals?
	How are problems addressed?
	Do the tools set out in the policy achieve their intended outcomes?

Focal area	Key research questions
Culture and values	What are the cultural issues that impact on careers guidance?
	What values underpin the way that careers guidance is provided and received?
	What is the culture that careers guidance is seeking to build?
M&E	How is the performance of careers guidance services monitored?
	What evaluation is being done in relation to performance and impact?
	How does M&E feed back into policy and strategy?

This framework focuses on the career development system as a whole. It is hoped that this table can be agreed as representing the key elements of a career development system, and that research is needed to support improvements in each element and in the systemic relationships required for the system to function more effectively.

11. Conclusion

As has been emphasised, this literature review is only the start of a process that will continue throughout the process of developing a research agenda. Key findings from the review are:

- Career development is a lifelong process, and in South Africa provision of services and programmes is fragmented. There are many providers and many programmes and services all operating independently.
- The South African education and training system suggests that career development is a national imperative:
    - The schooling system is ineffective, with poor quality teachers producing poor learning outcomes.
    - There is an articulation gap between school and university which results in poor throughput.
    - There are not enough graduates in science, maths, technology and engineering, areas necessary for global competiveness.
    - Seven research themes seem apparent: Career decision making; programme and service evaluation; environmental scans of services and programmes; career development processes; mentoring; sector skills research and the research emanating out of the labour market intelligence partnership.
- Methodologies being used include both qualitative (case studies) and quantitative (cross sectional surveys). However, most studies are localised and of a small scale nature.

- Some studies are employing theoretical frameworks to describe and explore phenomena. Examples of theories are systems theory, circumscription and the Interactive model of career decision. None of the reviewed studies have engaged in theory generation.
- Potential research exists on early childhood career development; curriculum integration of career development; evaluation of quality of provision of career development services; rigorous impact evaluation of programmes and services using diverse methodologies including large scale studies and longitudinal studies.

The work thus far has been an important step in the process of seeking clarity on what constitutes a research agenda to support career development, which in turn has led to an understanding of what is meant by career development and more importantly what constitutes the career development system. If the review can assist in building that clarity then the next iteration of this review will be structured differently. It will be summarised and will inform the contextual and current research sections of the planned research agenda.

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Annexure 2: Literature review on international research on career development

List of acronyms

Abbreviation	Explanation
CCCD	Canadian Council for Career Development
CPRN	Canadian Policy Research Networks
DHET	Department of Higher Education and Training
ELGPN	European Lifelong Guidance Policy Network
ETA	Employment and Training Administration
FLMM	Forum of Labour Market Minister
HRDSA	Human Resource Development Strategy of South Africa
LMDAs	Labour Market Development Agreements
MCEETYA	Ministerial Council on Education, Employment, Training and Youth Affairs
NDP	National Development Plan
NEET	Not in education, employment or training
NGOs	Non-governmental organisations
NPOs	Not for profit organisations
PATHS	Post-school Achievement Through Higher Skills
PINES	Poorly integrated new entrants
SEDOL	Special Education District of Lake County
SMEs	Small and medium enterprises
UCT	University of Cape Town

1. Introduction

This report provides a broad overview of international practice in and research on career development. The purpose of the review was to explore how career development research agendas are determined internationally, and the kinds of research that have been and are being conducted in this area that might be of relevance to South Africa. To this end, the review focused on the contexts within which career development research agendas are developed, that is, how career development is defined; the institutionalisation of career development; strategies and frameworks on career development; programmes and services, and research themes that have emerged.

Because of the vast interest in career development internationally, it was not possible to conduct an exhaustive literature review within the scope of this project. As such, some parameters were set, to review literature that articulates with current government development priorities, specifically improving the education system (National Development Plan (NDP), university success, review of the skills development system, promoting careers in maths, science and technology (Human Resource Development Strategy of South Africa (HRDSA), post school opportunities for young people (White Paper on Post-school Education and Training), employment equity, particularly promoting employment opportunities for people with disabilities and women (Employment Equity Act), rural development (Comprehensive Rural Development Strategy), and school university partnerships.

2. Defining career development

There is general agreement that career development is a lifelong process that involves learning and working, to determine the nature and quality of people's lives (Paton & McMahon, 2006; Careers England website; Career Development Association Alberta website; Canadian Council for Career Development; Australian government Department of Education website). While the traditional notion was that careers were 'made', the changing labour needs, particularly due to the dynamic labour contexts, have shifted this notion, and careers are constantly being constructed. The tendency is now to talk about employability – that is, people with adequate skills and knowledge to work in a particular context but also with the flexibility to continue learning to stay relevant to the changing labour needs of organisations (Careers England, no date). According to Paton and McMahon (2006), what should be secure now is the person and not the job, and the person's security comes from

their knowledge and skills currency, and the realisation that career development is multi-directional and multi-levelled.

Careers England has generated some useful characteristics about career development:

- **It is a lifelong process** – career development is a trajectory of *distinct goals, tasks, outcomes and transitions across the lifespan*, which involves exploration, exposure, and continuous development. In early childhood, where *career development is largely about exploration, developing a sense of self in the future and expanding horizons with respect to what that future self could encompass*. During adolescence, career development is *about exposure, experience, reflection and the development of personal/career management and employability skills*. Those skills are refined, expanded and deployed throughout adulthood to navigate the dynamic labour market for job progression or change of career.
- **Management** – career development can be managed or left to chance, but it is guaranteed that it is a part of the process of progressing in life. Even career development that is planned and management can fail to go according to plan, although the prospects for success may be better with informed planning which considers personal interests, attributes, values and skills and knowledge of the labour market (*conditions, finances, prospects, entry requirements, progression and pathways*). Career development planning is highly likely to fuel *motivation, focus and success*.
- **Transition between learning and work** – career development is the navigation of the transition between learning and work.
- **Dynamic** – career development recognises changes in people and the labour market, just as labour dynamics change, people also need to adapt to these changes in the skills and knowledge they acquire to stay relevant to the demands of an evolving labour market.

A missing dimension to these characteristics but which has been brought to the fore by these is that principally, career development is a complex and layered process involving the individual at the centre, primarily supported by:

- school and parents in the early childhood phase (exploration);
- school, parents, peers and community during adolescence (exposure); and
- college, parents, peers, community and workplace during adulthood (refinement, expansion and deployment).

3. Career development in practice

3.1 Authorities responsible for career development

Although government plays a crucial role in driving career development initiatives, career development is a multi-stakeholder and complex undertaking whose responsibility is shared. It appears Ministries of Education, Labour, Vocational Training, and Employment Services all have a role to play in the development of policy and driving implementation of career development interventions, although day to day implementation is relegated to various implementation agents including provincial departments of education, the private sector, non-governmental organisations (NGOs), universities and schools.

Canada's national career development initiatives are based on a continuum of programmes and services, with no single authority responsible for policy development, programme planning, service delivery, and funding. Efforts at coordinating the different initiatives between federal and provincial/territorial jurisdictions occur through the Forum of Labour Market Ministers (FLMM).The career development system is reflective of the constitutional and legislative divisions of responsibilities of education, training and labour market issues between federal, provincial/territorial and municipal governments. At school level, education is the responsibility of territorial/provincial government and each territory has its own education system, with career guidance as part of the curriculum. Although colleges, technical and vocational schools, and universities fall under provincial jurisdiction, what happens regarding career development is determined by each institution – there are no territorial or provincial guidelines provided.

The Canadian government plays an integral role in labour market matters, including training for employment and career development of adults, and provinces are sharing this responsibility through Labour Market Development Agreements (LMDAs). In 2002, seven provinces, New Brunswick, Quebec, Manitoba, Saskatchewan, Alberta, North West Territories, and Nunavut, had taken on full responsibility for the delivery of career development programmes and services and share the dissemination of career development information with the government. Five provinces, Newfoundland, Prince Edward Island, Nova Scotia, British Columbia, and Yukon Territory jointly plan career development services and programmes with the federal government responsible for labour market matters. Not for profit organisations (NPOs) also play a significant role in career development. The government also pays some organisations to assist with career development initiatives (Human Resource Development Canada & Canadian Career Development Foundation, 2002).

The following table summarises some of the authorities responsible for career development policy formulation and oversight in selected countries.

Country	Responsibility for career development policy and oversight
Australia	The Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA)
New Zealand	A government entity, Careers New Zealand was established, to work closely with Ministries of Education, Business, Innovation and Employment Social Development, Te Puni Kōkiri, and Pacific Island Affairs to improve connections between education and employment by supporting organisations working in career development with information and other resources and tools that they can work with to disseminate knowledge and career development skills (http://www.careers.govt.nz/)
Scotland	Skills Development Scotland
US	Department of Education - Office of Vocational and Adult Education

3.2 Cooperation

International practice suggests that National Career Development Forums can provide an efficient mechanism for cooperation and coordination of career development endeavours. Forums were established in the 1980s and 1990s and in 2008, there were career development forums in 24 European countries (i.e. Austria, Bulgaria, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Norway, Poland, Romania, Slovakia, Slovenia, Spain, Sweden and the UK. The European Lifelong Guidance Policy Network (ELGPN) proposes that a national forum of this nature should involve, or at least be recognised by, the government; and constitute its membership, comprising various stakeholders including government departments/the public sector, community-based organisations, and others with a stake in career development including those in education, training and employment sectors. The forum should address the career development trajectory from early childhood to adult life. A forum's activities can be organised aroundexchange of information and defining the scope of cooperation and coordination. A forum can share resources, coordinate work to maximise use of resources, develop common standards for career development, and communicate a coherent message about career development to users of career development services and programmes. Within a forum can be intra group collaboration based on identified areas of collaboration within the bigger forum (DHET and SAQA, 2012).

While cooperation at national level can be beneficial for the career development project, Schaeffer & Rivera's study (2014) suggest that school level collaboration between guidance counsellors and a university can enhance school uptake of career development programmes to enable students to think more meaningfully about the role of schooling and university towards their career trajectories. In a study to explore Academic Development initiatives, Lewin and Mawoyo (2014) show how universities and schools in South Africa are collaborating to expose students in secondary school to study options in university that can influence their career development. Some of the programmes, like University of Cape Town's (UCT) 100UP, target specific township schools and identify learners with talent and fund them to study at UCT, providing academic development support throughout their years of study.

3.3 Career development strategies/frameworks

Several countries have developed frameworks to inform nationwide understandings of career development, as well as provide guidance on and approach to career development practice. Some of these strategies are highlighted in the following table.

Country and strategy name	**Characteristics of strategy**
Australian Blueprint for Career Development (the Blueprint)	Developed in 2008, adapted from the Canadian *Blueprint for Life/Work Designs* (Atelier Learning Solutions Pty Ltd). The Blueprint is aimed at all those who support career development of Australian people from kindergarten to adult life. It is a framework that can be used to design, implement, and evaluate career development programmes for adults and young people. The Blueprint identifies the skills, attitudes and knowledge that are needed to make sound choices and for effective career management. The Blueprint identifies 11 career management competencies at four phases of development in the life span (kindergarten, middle school, senior and post school, adults), indicators of competence, and the nature of local standards and how to construct them (Australian Government, 2010).
Australian National Career Development	High level document providing an overarching career development vision for Australia to 2020, identifying priority areas

Strategy	for action. The Strategy promotes an all ages approach, with career development driven by multiple stakeholders in collaboration, and highlights the importance of integrating career development into the curriculum. The Blueprint provides guidance on curriculum integration (Australian government, 2013).
National Career Development Guidelines (US)	A career knowledge, skills, and decision-making framework with three domains, goals, and indicators that can be used by teachers and counselors as guidelines to design and create career resources. The three domains, which represent a developmental area in career development programmes, are: Personal Social Development, Educational Achievement and Lifelong Learning, and Career Management. Indicators are provided for each goal to show what constitutes achievement of that goal (America's Career Resource Network).
Career Management Skills Framework for Scotland	Competency framework that offers a definition and description of career management skills. The framework is designed for stakeholders working in the area of skills development and career management, to inform and shape practice (Skills Development Scotland, 2012).
Blueprint for Life/Work designs (Canada)	Framework used to design, build, and manage careers. Maps out the competencies Canadians need for career development from kindergarten to adulthood. The Blueprint provides a common language across Canada for the outcomes of career development initiatives and activities in any setting. This Blueprint influenced the Australian and Canadian Career Development Frameworks (http://www.blueprint4life.ca/blueprint/home.cfm/lang/1).
The Blueprint for Careers (UK)	The Blueprint offers individuals a framework for managing their career development to capitalise opportunities and deal effectively with the challenges of the 21st century. The framework has 11 career learning areas organised under three key headings, *understanding and developing myself, exploring life, learning and work and developing and managing my career* (Learning and Skills Improvement Service, 2011).

3.4 Provision of career development programmes and services

Career development programmes and services are provided through explicit and implicit curricula. Studies have shown that students with exposure to different career paths achieve better grades in school (Evans & Burck, 1992, cited in Schaeffer & Rivera, 2014) and have a greater chance of completing high school (Moody, Kruse, Nagel, & Conlon, 2008, cited in Schaeffer & Rivera, 2014). Schaeffer and Rivera (2014) highlight how a neglect of the career development element of the curriculum can weaken the transition from high school to university, arguing that a focus on career development in school is not only integral for the world of work, but connects school, university and the world of work. This section discusses selected examples of explicit curricula and programmes for different age groups that were reviewed for this report. It is clear that the curricula strive to link school experience to career development to enable learners to realise the relevance of school to the rest of their lives. Two of the examples are based on curriculum available through a creative Commons license. These materials can be reused, repurposed, and adapted for non-commercial use without seeking the permission of the originator, although attribution must be made. The website links to these curriculum resources and programmes are presented as an Appendix.

Programme name	**Description of programme**
Career Choices (US)	Interdisciplinary curriculum for middle school, high school, college, and adults that provides interactive learning opportunities for teachers and students, to enhance their knowledge and skills on career development.
Career Development 2201 Government of Newfoundland and Labrador, Canada	The Career Development 2201 course was developed to assist students to make connections between their learning, knowledge and skills and their personal and career development. The curriculum document provides the teacher with learning outcomes, learning and teaching strategies, and assessment and evaluation strategies.
Victorian Careers Curriculum Framework	Framework provides a scaffold for teachers, trainers, careers practitioners, team leaders, curriculum coordinators and school leaders to develop localised and customised quality career development programmes for young people in schools, Vocational Education and Training providers and the Learn Local adult community education sector (Learn Local providers) by indicating suitable links to existing curriculum. It also provides teaching

Programme name	Description of programme
	resources for different age groups.
The Real Game Series (Australia)	A career and life skills education programme to help students see the connection between school studies and life after school. The programme demonstrates to learners the real life relevance of their school experience and introduces them to the world of work.
California Career Centre Classroom ready curriculum	Guidance curriculum lessons for middle and high schools that can be used as stand-alone, or adapted by the teacher. These lessons reflect knowledge, skills, and attitudes to be gained in the areas of academic achievement and career development. Assessment forms an integral aspect of the curriculum.
SEDOL Career Development Curriculum Frameworks	The Special Education District of Lake County (SEDOL) Career Development Frameworks are aligned to the Illinois State Learning Standards and provide units of study on career development. Areas that are covered include Career awareness, career exploration, career preparation and career work and placement and transferring to adult services.
Careerconnectors	Wikispace started by the Sun West School Division in Canada, intended for interaction of career development teachers. The space encourages sharing of resources, ideas, articles and tools to advance best practice in career development instruction. There is also a discussion forum. Some of the resources available are licensed under a creative commons licence and can be reused, adapted and repurposed.
Roads to Success	A college and careers programme aimed at helping young people connect school and adulthood aspirations. The curriculum, for Grades 7 – 12, includes facilitator guides, family newsletters, programme manuals, student handbooks, and student portfolios can be downloaded freely. Curriculum materials are licensed under a creative commons license and can reused for non-commercial purposes, with attribution, without seeking the originator's permission.

3.5 Some key considerations regarding career development curriculum, services and programmes

Research studies have highlighted how critical identity is in the development of career development curricula and programmes, and provision of career development services. Key identity issues that have been the subject of scrutiny include race, gender, disability, and ruralness. All these identity issues have implications for curriculum and programme development, as well as provision of career development services to improve self-efficacy and enable students to mitigate barriers that they may encounter in their career development life journey, because of their identities.

The extent of the challenges presented by certain identities in the career development trajectory vary. According to Asch, Rousso, & Jefferies (2001) and Ferri & Conner (2010) (cited in Lindstrom, Doren, Post, and Lombardi, 2013) women with disability may face double disadvantage in their career development as their quest for careers is constrained not only by their gender, but also their disability, which can limit post-school employment and educational opportunities. Lindstrom et al cite several longitudinal studies (Fabian, 2007; Hasnain & Balcazar, 2009; Rabren, Dunn, & Chambers, 2002) which have shown how young women, despite their disability type, have far less chance of finding work than their male counterparts. In some cases, parents hold back career advancement of their daughters as they fear for their safety in the workplace. In the workplace, the advancement of females with disabilities is curtailed by lack of role models. In the United States (US), the Post-school Achievement Through Higher Skills (PATHS) programme was designed to cater for the career development needs of young women with disabilities and other barriers, specifically targeting and addressing internal and external barriers and introducing an extensive range of career options. This gender specific curriculum is intended for 9th - 12th graders and includes four key areas:

- Module 1 - self-awareness, aimed at building self-efficacy and self-confidence;
- Module 2 - disability issues, to enable young women to advocate for themselves and learn about accommodations workplaces should make for people with disabilities;
- Module 3 – gender identity, provides the young women with lessons on the changing role of women in the work place and invites guest speakers of women working in a variety of occupations; and
- Module 4 – career and college, focusing on planning for college and employment.

The study evaluating this curriculum intervention, using a control group, found that the young women who had been exposed to the PATHS career intervention gained vocational self-efficacy and social efficacy, and an increased awareness of disability and gender issues related to career planning, while those in the control group did not, and actually decreased in

career outcome expectancy (Lindstrom et al, 2013). This study highlights the importance of gender and disability issues in career development curriculum. Where females with disability cannot be grouped separately for such tuition, gender and disability would best be mainstreamed in core career guidance curriculum.

Other key identity issues with implications for career development curriculum and programmes, as well as provision of services are homosexuality and transgender. Regarding homosexuality, Olsen (2006) proposes that counsellors need to instil strategies that overcome oppression and discrimination towards homosexual people. This includes exploring the gains and risks of specific career options, and assessing a workplace for homosexual affirmation or discrimination. While there are many resources and literature on counselling homosexual students and people, not much literature is available for transgender career development and management. Transgender students have specific needs which are not catered for by traditional career centres and counsellors. Some of the challenges experienced by transgender students in the career development trajectory are highlighted by Scott, Belke and Barfield (2011), who point out the dearth of career development research focused on transgender students in vocational training literature, yet the number of transgender students in college is increasing annually. Scott et al emphasise that counsellors in the work place and in college should prepare themselves to assist transgender students achieve their career aspirations more effectively by understanding the challenges that face transgender individuals in the workplace; familiarising themselves with resources on transgender issues; empowering the transgender client; and collaborating with other professionals working with transgender individuals to understand the laws that protect the rights of transgender individuals, and gain access to resources available that can be used for effective career development (See also Pope et al, 2004).

4. Career development research

4.1 Research agendas

In order to meet the demand for evaluation evidence from internal and external stakeholders; provide clarity and consistencyin the evaluation approach, and achieve a more strategic and plannedapproach to contribute to information needs to inform planning, some countries have developed research agendas for their career development work (Skills Development Scotland, 2012; U.S. Department of Labor, Employment and Training Administration, 2007 & 2013). In Scotland, a research agenda is referred to as an evaluation strategy and in the US as a research strategic plan. These research agendas contain the following information,

which is useful in determining the structure of the Department of Higher Education and Training (DHET) research agenda for career development:

- Outline of strategic aims and objectives of the research agenda
- The approach taken to the development of the research agenda, including literature reviews of best practice and stakeholder consultation, document review
- Definition of research
- Purpose of the research
- Strategic framework for research
- Alignment of research agenda with performance management framework
- Principles of the evaluation
- Roles and responsibilities in implementation and monitoring of the research agenda
- Research agenda themes
- List and short descriptions of prior research, current research and research being planned for the current research agenda
- Action plan for implementation of research agenda
- Dissemination of research

The research agenda for Scotland is over a three year period while those for the US are over a five year period. New agenda setting takes place at the end of the stipulated period for the current agenda, and a new agenda is set, outlining research areas in the previous cycle and new directions for research for the next few years. Identified priority topics for the research agendas reviewed include:

- Understanding changing labour markets;
- Identifying effective strategies for career development;
- Improving workforce system infrastructure;
- Addressing the needs of special populations;
- Building research infrastructure and support
- Post-secondary education

Obviously, the priority areas for a research agenda depend on the issues the country is grappling with, and they should also be informed by policy imperatives to improve the lives of citizens. The agenda should also be careful to cover the whole career development trajectory from early childhood to adult life.

4.2 Research on career development

Career development is a very well researched area. A search for "career development" on EBSCOHOST Academic Search Complete generated 28 310 results of academic research on the area. Further, there are numerous country based research sites for funded research on career development initiatives, for example, the Canadian Career Development Foundation: http://www.ccdf.ca/ccdf/index.php/research/reports. For the purposes of this literature review, the search was narrowed to only look for research with relevance to South Africa. This was done by adding key words that reflect national priorities, for example university access and success, review of the skills development system, careers in maths, science and technology, post school opportunities for young people, disability and gender, rural development, and intergovernmental relations and school university partnerships. Some of the research reflecting these issues in relation to career development is elaborated in this section.

4.2.1 Research themes

Review of career development interventions

Studies reviewing career development strategies/frameworks have been done in many countries. In Australia Atelier Learning Solutions Pty Ltd (2012) conducted a review of the blueprint for career development, four years after the launch of the Blueprint. The review was aimed at exploring use and purpose of the Blueprint; the extent of usage across Australia; and user opinions of the Blueprint. The research also gathered perceptions on how the Blueprint could be improved; explored the degree to which the Blueprint website supports and encourages use of the Blueprint; and, elicited insights on possible options for the future of the Blueprint. The review found that awareness of the Blueprint was high within the schooling and tertiary sectors, but there was limited awareness nationally. The low awareness was attributed to lack of an awareness raising strategy – low awareness also affected usage. Within the education sector where there was high awareness, the Blueprint was being used to construct career development curricula. In schools, the Blueprint was being used by careers advisers as a reference to inform several areas of practice, including:

> … *map existing career development opportunities; plan a whole school approach to careers education; develop courses and units of work for particular Years and classes; and develop new resources and make judgments about the suitability of existing resources. Where careers advisers also have responsibility for VET programs and courses, the Blueprint is also being used to make connections between career competencies and employability skill* (Atelier Learning Solutions Pty Ltd, 2012).

At tertiary level, the Blueprint was used in student services units by staff for counselling of individual students. It was also used to *map competencies against courses and to use this information within professional decision making and also to improve the quality of advice to students*. The Blueprint was incorporated into certificate, diploma and post-graduate degree courses. In the private practice sector the Blueprint was used predominantly by practitioners in counselling services for individual clients or small group counselling, usually for clients in unemployment or those moving towards a new vocation. The Blueprint was also used to develop competency check lists to identify gaps and address these. It was also used as a reference when developing short courses. Evidently, the Blueprint was a useful document in terms of providing guidance on several practice issues, for those who wanted it.

Evidence based research on career development

Evidence based research has been separated from review studies because its specific aim is to measure the impact of career development interventions so as to improve practice. Review studies do not necessarily influence policy, although they can. Systemic evidence based evaluations are also usually built into project implementation, during indicator development and the logical framework process. In this regard, what needs to be measured to establish impact is very clear from the start. Evidence based research enables the public, funders, and policy makers to realise the impact of work being done on career development. This is important given the investment made in career development in some countries.

In Canada, the Canadian Council for Career Development (CCCD) has as one of its responsibilities sharing research and promoting evidence based research to inform policy. Some of the research that has been conducted by CCCD includes:

- Assessing the impact of career development resources and practitioner support across the employability dimensions (Redekopp, Hopkins & Hiebert, 2013) – this research explored the differential effect of practitioner guided and practitioner guided and supported use of career resources on clients who are weakly attached to the labour market versus those who are strongly attached to the labour market. The study found that participants in both groups improved in knowledge, attributes and skills, and both interventions also resulted in higher employment and employment fit. This study highlighted that career development interventions can result in positive gain by clients.

- Developing indicators for measuring impact of career development and employment services (Canadian Career Development Foundation, 2013) – the aim of this project was to develop and test a performance tool that captured elements of services already being captured as well as elements of services identified by front line practitioners and research studies as having impact on employability outcomes but not usually captured and reported. The research was conducted over 11 months, mainly through an online survey tool. The significance of this research is that it established meaningful ways to measure clients' progress by connecting interventions with changes in skills, knowledge and personal attributes, and by connecting these changes with successful labour market outcomes. The study identified several ways to strengthen the evidence base to support and improve practice, including, providing descriptions of career development services, and not just naming them, and building on what practitioners are reporting as successful practice.
- Transitioning graduates to work: Improving the labour market success of poorly integrated new entrants (PINES) in Canada (Bell and Benes, 2012) – This research was motivated by the increasing unemployment rate among Canadian young graduates. The research found that the labour market has now become an hourglass, characterised by growth of knowledge sector jobs that require post-secondary education (PSE) credentials or highly refined skills and entry-level jobs that do not require PSE credentials or considerable work experience. Young graduates are stuck at the entry level, moving from one temporary job to another. The jobs that they are accessing are incongruent with their qualifications or career aspirations. Because of the "in last out first policy", global recession has affected youth more than the aging population, and youth find it difficult to bounce back after retrenchment. Further disadvantage is experienced by rural and remote youth, who are the most likely to have poor labour market attachment, with Aboriginal youth and youth with disabilities having the poorest rates of labour market integration. The research makes concrete recommendations to support transition of PINES into the labour market, including
    - Further research on PINES to understand which of them are particularly at risk, so as to design appropriate and effective transition programmes before they become disillusioned and disengaged;
    - Increase youth access to career development interventions and work experience;
    - Research on what makes employers motivated to employ youth; and
    - Development of a national youth school to work transition.

The research discussed here was not just research for research's sake, but was meant to influence policy and change practice.

Identity and career development

Research on career development has highlighted identity as an integral part of career development provision of services, planning of curriculum, decisions that people make, and outcomes of their engagement with the labour market. The identity issues that have been explored in career development research, of relevance to South Africa, are gender, disability and youth.

Gender

Research on career development has focused on gender, with some emphasis on gender differentiation on career choices and aspirations, as well as perceived barriers. In the study of Migunde, Agak, and Odiwuor (2012) focusing on form four (fourth year in high school) learners in a municipality in Kenya, more female students chose social, artistic and conventional careers which conform to traditional gender roles while more male students seemed to prefer more enterprising and realistic careers which involve manipulation of tools. The study cites lack of role models in certain careers by female students, which prevents them from aspiring for those careers. For males, the major barrier cited as standing in the way of their ideal career was financial resources to pursue further studies.

Disability

Researchers working in the area of career development for youth with disabilities are concerned with the little attention given to career development and disability (Fives, 2008). They also highlight that career development theory does not reflect adequately on the challenges faced by young people with disabilities, as they have multiple issues to deal with, including role changes and identity formation as well as their disabilities (Lorenz, 2011). Youth with disabilities usually miss their career exploration opportunities during childhood, and as a result experience difficulties in the transition from high school to postsecondary activities because of this lack of successfully completed tasks of early career development (Ochs & Roessler, 2004) that creates a deficit of work related career awareness (Capella, Roessler, & Hemmerla, 2002). Perception of the community towards people with disability may also negatively affect career awareness and development (Mpofu & Wilson, 2004). To overcome any barriers to career development by youth with disabilities, Lorenz suggests that early career development should also involve the immediate family of the person with disabilities.

Youth

Internationally, governments are grappling with high levels of unemployment among the youth. Terms are being coined for youths who are not in employment – in Canada, youth who cannot find jobs are referred to as poorly integrated new entrants (PINES) and in South Africa they are youth not in education, employment or training (NEET). Research focusing on youth has mainly been concerned with the evaluation of programmes offered to youth, with a view to establishing whether they help with transition from school to work; and with the career development of youth.

The Canadian Policy Research Networks (CPRN) an entity that advises Canada's leaders on current issues and policy options for national development, is ranked as Canada's most influential social policy think tank. CPRN have a project on *Pathways for Youth to the Labour Market*, which explores the nation-wide scope of career-development services for youth. This project has generated some significant research. For example, Bell and Bezanson (2006) explore career development services available for in and out of school adults, the extent to which they are adequate, as well as how they contribute to successful pathways to the labour market. The study found that not much was known then about career development services for youth in Canada. Service provision was centred mostly around career information and support with immediate education and training decisions, rather than career planning and preparation. The services were also decentralised, with career information being provided primarily in schools, public youth employment centres and non-profit youth employment centres. Out of school youth and those making the transition from school to work had limited access to career development services. The study also concluded that students listen to those in their social circles (parents, admired community members, friends) when exploring different careers, but they want professional knowledge and advice (e.g., guidance counsellors) on education and work decisions. The findings of the study highlighted that career development services are integral to enabling students to make informed decisions about studying further, motivate them to succeed, and prepare them for the world of work.

The Pathways programme published 14 research projects on youth and career development between 2006 and 2009[6]. Some of the studies commissioned under the auspices of the *Pathways for Youth to the Labour Market* are:

[6] These studies are available at: http://www.cprn.org/theme.cfm?theme=155&l=en

- Connecting Supply and Demand in Canada's Youth Labour Market (Brisbois, Orton & Saunders, 2008), a study that explores the degree to which labour market demands are conveyed to youth.
- Implementing the School-to-Work Transition in Québec (Adouane, Doray, & MÃ©nard, 2008) explores how educational institutions in Quebec support the transition from school to work.
- Pathways for Youth to the Labour Market: An Overview of High School Initiatives (Taylor, 2007) explores programmes and policies that hinder or enable youth's access to the labour market.

In support of the fact that career development initiatives for youth are diverse and take many forms, Mekinda (2012) discusses four US programmes: Citizen Schools, After School Matters, Career Academies, and Job Corps, which serve minority and low income youth who do not have many opportunities to access such programmes. These projects employ theory-driven and evidence-based practices, to inform broader education reform initiatives such as:

> *opportunities for project-based or experiential learning; the integration of academic, social, and technical skills; the creation of networks of supportive adults and peers; and partnerships among institutions, easing the burden on schools to prepare youth for an increasingly competitive and ever-changing job market* (2012, pp.45-46).

Mekinda's analysis of large scale evaluations of these projects reveals that career development projects should be designed to cater for a wide range of students, so that career development starts in childhood and continues into adulthood. Further, career development can successfully be integrated into the core curriculum, and programme design needs to be solid to achieve desired outcomes. Quality of programme design can be achieved by reviewing and revising the programme.

4.2.2 Theoretical frameworks

Several theoretical frameworks are used in career development work, and some of them have been used in research. The most widely used one is **social cognitive career theory,** a theory which predicts academic and career interests, choices, persistence, and success and enables a study of both person and contextual variables in career development. In the study by Raque-Bogdan, Klingaman, Martin, and Lucas (2013), the authors examined the person and contextual variables of gender, ethnicity, educational and career barriers, and career-related parent support for incoming first year African American, Asian, Latino, and White

college students. In this study, women, more than men, reported higher levels of career barriers, but indicated similar levels of the ability to deal with these barriers. They also received more career-related emotional support from parents than did their male counterparts. Hui-Hsien Hsieh and Jie-Tsuen Huang (2014) use the theory to investigate family socioeconomic status and proactive personality to career decision self-efficacy among 336 Taiwanese college students. Their study found that both socioeconomic status and proactive personality were positively associated with career decision self-efficacy. In the study by Ali and Menke (2014), Latino students reported higher self-efficacy beliefs than white students, and although these students perceived higher barriers, this did not seem to relate to their career aspirations. The authors suggest that career counsellors should design programmes that focus on Latino students' self-efficacy and outcome expectations, as well as efficacy for overcoming barriers, so as to increase career achievement among rural Latino youth.

5. Disseminating research on career development

There are several international journals dedicated to disseminating research on career development, and some of these have been developed specifically for publishing research within specific countries. Examples of these include:

- Australian Journal of Career Development
- The Canadian Journal of Career Development
- Canadian Counselor
- Australian and New Zealand Journal of Vocational Education Research
- Australian Journal of Psychology

Local publications help generate an interest in a practice area and provide the platform for academics and practitioners to share their work, usually as a stepping stone to publishing in international peer reviewed journals. Research on career development is also shared through websites of those funding or promoting the research.

6. Enabling implementation of research agendas

Research on career development to provide an evidence base to inform practice needs to be funded. Internationally, funding for such research is provided by research centres, research entities, and government entities, under specific funding windows. In Canada, for example, the Human Resources and Skills Development Canada funded research on creating an evidence base for improving practice over a five year period. In the US, the Employment and

Training Administration (ETA) provides funding for research (US Department of Labor, Employment and Training Administration, 2013).

7. Conclusions

This review has identified some important issues regarding career development that need to be considered in the planning and development of the DHET Career Development research agenda. These include:

- A common understanding of career development needs to be established to inform practice, and this understanding has to locate career development within a lifelong continuum starting in early childhood, and progressing to adult life.
- The individual is at the centre of career development, with support from school, parents, community, peers.
- Government is at the centre of career development policy formulation, and plays an oversight role on the provision of services and programmes, which are usually dispersed and provided by many agencies and entities.
- Multi-stakeholder collaboration is necessary to ensure development of a common understanding and a more coherent strategy for career development within a country. Collaboration in a platform such as a forum will enable sharing of information and ideas, resources, and coordination of efforts to avoid unnecessary duplication and wastage.
- Collaboration at micro level, between schools and universities, can be a useful way to expose students to their career trajectories while they are still in school, in order to motivate them by showing them the relevance of school to their entire lives.
- A career development framework or strategy enables a common understanding of career development that can be used to guide planning and design of interventions.
- Curriculum is an integral aspect of career development – ideally, explicit curriculum is useful as knowledge of career possibilities can motivate learners and lead to academic success. It also promotes better transition from school to university. Career development curricula should take cognisance of student identity e.g. disability and gender, and be sensitive to it and address it so as to give equal career development opportunities to all students.
- Research agendas are useful for providing evaluation evidence on interventions that can be used to improve interventions on career development. Research agendas should cover a fairly long period of time, e.g. a five year period.

- Priorities in a research agenda should be determined by the priority developmental needs of the country and its policy priorities.
- The common research themes on career development are a review of interventions; evidence based research of interventions to inform practice; identity issues particularly gender, disability and youth, and labour market dynamics.
- Theory of career development is still underdeveloped, but the most widely used theory in the research is social cognitive career theory. The underdevelopment of theory provides a chance for theory building.
- Research on career development is disseminated in local publications and websites.
- A research agenda needs to be resourced, and funding is one of the critical resources required, particularly for commissioning research.

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Appendix: Curriculum Resources Links

Programme Name	Website/Access
Career Choices (US)	http://www.careerchoices.com/
Career Development 2201 Government of Newfoundland and Labrador, Canada	http://www.ed.gov.nl.ca/edu/k12/curriculum/guides/careered/
Victorian Careers Curriculum Framework	http://www.education.vic.gov.au/school/teachers/teachingresources/careers/carframe/pages/framework.aspx?Redirect=1
The Real Game Series (Australia)	http://www.education.vic.gov.au/school/teachers/teachingresources/careers/Pages/realgame.aspx
California Career Centre Classroom ready curriculum	https://www.calcareercenter.org/Home/Content?contentID=402
SEDOL Career Development Curriculum Frameworks	http://www.sedol.us/about-sedol/administration/curriculum/career-development/
Careerconnectors	http://careerconnectors.wikispaces.com/C.++Career+Development+Competency+Frameworks
Roads to Success	http://www.roadstosuccess.org/ourcurriculum