

Towards an Expanded Discourse on Graduate Outcomes in South Africa

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Abstract

With a growing culture of accountability and institutional “managerialism” at universities and other higher education institutions, graduate employability and actual employment outcomes have become key indicators for higher education success. Research on graduate outcomes has gained significant currency among national governments, university management, employers and students. Research on graduate outcomes has, unsurprisingly, focused on econometric and instrumental measurements of graduate outcomes. Taking cognisance of the importance of the econometric, earning-based, and skills-driven conceptualisation aimed at addressing employer expectations of skills demands, student aspirations and a structurally shifting economy/curriculum, I argue for an expanded conceptualisation of graduate outcomes research. I propose a framing that interrogates and accounts for the complex constraints and injustices linked to history, background, and socio-economic context which usually obscure underlying inequalities of (un)employment and graduate outcome numbers always present. I propose a human development (capability-informed) approach as an alternative framework which applies broader notions of human development, social justice and freedoms to graduate outcomes research.

Keywords: graduate outcomes; employability; capabilities approach; conversion factors

Introduction

In a global economy characterised by shifting skills demands, higher education and training has come under increasing scrutiny from all stakeholders. New forms of higher education management have emerged to maximise resources (Deem and Brehony 2005)



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while employers have become active players in curriculum design that is aimed at achieving the development of specific graduate skills or attributes for work. Universities are expected to produce graduates with a defined skill set—often alluded to as “graduate core skills,” “employable skills,” “graduate attributes,” or “generic skills,” among others (Bowden et al. 2000; Shivoro, Shalyefu, and Kadhila 2018). These “skills” are often interchangeably referred to as capabilities, attributes, or levels of learning outcomes which primarily promote students’ acquisition of generic and technical/occupational skills, based on employer or labour market demands (Smail 2014) or foster a smooth transition into and integration in employment (International Labour Organisation 2013).

The skills discourse has been closely aligned with the human capital theory (Becker 1993; Schultz 1981). As suggested by Becker (1993, 19), “schooling raises earnings and productivity mainly by providing knowledge, skills and a way of analysing problems.” Human capital theory proponents perceive education as an investment that should link to better employment outcomes for the individual while enhancing employer expectations. Graduate employment research has conceptually focused more on econometric dimensions based on knowledge and skills attained, jobs secured, earning levels and types of employment (contract or full time) (Heidemann 2011).

This conceptualisation of graduate outcomes has been subjected to a number of critiques. Oliveira and Holland (2007) highlight the fact that Becker’s theorising disregards informal education which does not require financial investment. Oliveira and Da Costa (2014) further interrogate the silence on the role of work experience which is highly ranked by employers and graduates themselves. A critique more relevant to this paper is that of O’Shea (1999) which has received much more attention with the development of the human development index. According to O’Shea (1999), Becker’s (1993) theory undermines the cultural and social benefits of education and training that are aimed at enriching human life and contributing to a broader human development beyond earnings or productivity (Lanzi 2007). Furthermore, linked to the Humboldtian notion of *bildung*, university education is expected to develop an individual’s heart, mind and identity in a lifelong process of discovering humanness (Van Bommel 2015).

In a review of national and institutional graduate tracer studies done in South Africa, Koen (2006, 9) argues that little attention has been given to external factors affecting current employment trends. He contends that “several studies merely provide tabular results on the characteristics of graduates, their employment uptake [outcomes] and their satisfaction levels [with respect to their jobs] ... with little attempt made to explain the economic, political and social processes that are linked to the observed employment trends.” This article therefore aims to interrogate the current discourse on graduate outcomes from a human development and capability approach. Piketty (2014) argues that while higher education has the capacity to reduce socio-economic inequality, the market forces of capitalism and meritocracy contribute to widening inequality gaps. Of critical interest in this paper is to explore how graduate outcomes are enabled or constrained by

individual, social and other factors that are usually obscured in large-scale quantitative surveys. Without undermining the importance of technical or core skills, jobs secured and graduate earnings, I argue for an expanded analysis of graduate outcomes based on human values developed, achieved aspirations and freedoms (Sen 2009). The capability of graduates to become and do what they aspire to, as well as the capability to participate in decisions concerning their lives (voice), has not been adequately integrated in graduate outcomes research.

Measuring Graduate Outcomes: Shifts and Changes

Higher education has undergone a number of significant changes in the last few decades (Brown and Lauder 2009; Tomlinson 2012). One of the areas where these changes have been pronounced is the adaptation of student training according to changing labour demands. This adaptation has to a large extent translated into a demand-led approach to teaching, learning and graduate training. In the absence of a common or universal understanding of what graduate outcomes or core skills are or how they should be evaluated, the conceptualisation and measurement of graduate outcomes from university managers, academics, governments, employers and students have remained fluid concepts across a number of contexts (Sin and Reid 2005).

In the Australian context, where significant research has been conducted (Cleary et al. 2007), defining and measuring graduate outcomes has been strongly linked to skills required for getting employment while making the job rewarding for oneself and employers. According to the Australian Department of Education, Science and Training, employability skills are defined as “skills required not only to gain employment, but also to progress within an enterprise so as to achieve one’s potential and contribute successfully to enterprise strategic directions” (DEST 2002). Eight core skills are identified: communication, teamwork, problem-solving, self-management, planning and organisation, technology, lifelong learning and entrepreneurial skills. In terms of assessing these skills outcomes, the Australian Council for Educational Research designed a standard skills assessment framework of four core skills: critical thinking, problem solving, interpersonal understanding and written communication.

Regarding employability from a US perspective, two dominant schools of thought stand on either extreme of the debate: “utilitarianism” and “basic.” Neoliberalists with a utilitarian approach believe the global skills market should mould education policy in such a way that every student should be educated for a place in the workforce (Smith et al. 2017). Meanwhile, neoconservatives strongly support a return to the traditional schooling of the “basics” (reading, writing and arithmetic) along with moral education (Reilly 2004). However, arguing for a “return” implies that there has already been a shift away from the basic towards demand-led education and training (Mitchell 2008). More recently, Wagner (2014) has echoed Australia’s sentiments. He identifies seven core competencies or skills that graduates need to have attained upon graduation; these include

critical thinking, collaboration, agility and adaptability, initiation and entrepreneurship, analysing information, communication and curiosity and imagination.

In Europe, the conceptualisation is similar, with emphasis placed on skills and job outcomes (Dearing 1997). Moreover, graduate outcomes are associated with graduates being able to find employment within a specific time frame (Harvey et al. 2002). Kostoglou and Paloukis (2007) argue that the employability of young graduates has become one of the first priorities at European national and personal level outcome analysis, and constitutes one of the main indicators of educational system efficiency. Still within the United Kingdom context, universities are under significant pressure from governments and other funding agencies to keep employability definitions simple, e.g. the number of graduates who gain employment within the first six months post-graduation. Andrew and Higson (2008) used research from across four European countries to show how employability relates to being able to “produce highly qualified, flexible and employable individuals who are able to meet the ever-changing demands of modern-day European business” (2008, 420).

In the African context, skills and graduate employment are underscored as a critical outcome for universities. During the 13th General Conference of the Association of African Universities, higher education institutions were called upon to become “responsive to labour market demands and provide the necessary competencies and skills to their students to make them employable” (AAU 2013, 3). The South African higher education policy emphasises the need to align enrolment to the needs of the labour market (DoE 2001).

Evaluating graduate outcomes based on skills and employment has also been influenced beyond national or regional contexts by international stakeholders. The Organisation for Economic Co-operation and Development’s (OECD 2012, 3) report entitled *Better Skills, Better Jobs, Better lives* suggests a strong link between graduate skills and employment. It further states, “skills have become the global currency of the 21st century.” The World Bank supports this thinking in advocating that “to secure employment [graduates] need to ... prepare themselves with the skills in demand” (Wang 2012, 48). This position has further been advocated in the European Union-led initiative, Tempus, whereby three North African countries and four European and Middle Eastern countries aimed to enhance the employment outcomes of graduates by developing partnerships between universities and companies and reforming graduate training towards employers’ skills needs (European Commission 2013).

Meanwhile, the Human Development Report (UNDP 2015, 1) conceives (graduate) work as a means to a broader end. Graduate outcomes therefore go beyond merely earning a livelihood to also include equality of economic opportunities and growth, reducing poverty, enhancing gender equality and providing a sense of dignity and worth. However, recent studies (CHEC 2013; Walker and Fongwa 2017) in the South African context

highlight the inequality of graduate outcomes which is not always a function of human capital factors or skills obtained, but is rather based on social structures shaped by historical inequalities. In his book, *Capital in the Twenty First Century*, Piketty (2014) does not argue against more education but for the collapse of the boundaries of knowledge access and outcome and inclusion of those socially excluded by various social structures. This leverages the benefits of education to everyone, irrespective of social class, race and gender.

Sawahel (2014) questions the conceptual limitation of the European Union initiative to enhance graduate outcomes. Although the project aimed to enhance graduate employment outcomes from a skills and opportunity perspective, little or no emphasis was placed on human aspects of development. The OECD (2012, 3) also acknowledges the limitations of the skills agenda, arguing that it fails to take the conversation further into other units of analysis beyond skills and jobs. In their report, the OECD highlights the need for an expanded debate on the conceptualisation and measurement of graduate outcomes.

From the preceding, graduate outcomes research can be broadly conceptualised along four themes:

- Graduate outcomes as an assessment based on a set of pre-defined skills and competencies a graduate should possess. The acquisition of core skills, subject knowledge and attributes for getting employment, ensuring career mobility and (increasingly) changing careers.
- Graduate outcomes as meeting employers' needs and expectations.
- Graduate employment outcomes as a form of determining the quality of higher education institutions, where institutions whose graduates get jobs quickly are considered better than those whose graduates take longer.
- Graduate outcomes as developing freedoms and citizens who are able to be and do what they aspire towards in terms of human development and contributing to society broadly.

González-Romá et al. (2018) use a psychosocial construct of job identity to show how employment status, career identity and job quality in a European context can be used to understand graduate outcomes. However, the framework places less emphasis on human development values as a higher education outcome. Recent observations such as the #FeesMustFall and #RhodesMustFall movements in South Africa (Luescher 2016) as well as calls for a decolonised curriculum and pedagogy, highlight some of the limitations of the current status quo in terms of assessing outcomes (Heleta 2016). Especially in a highly unequal labour market, society and higher education system such as South Africa's, an absence of an expansive evaluation of graduate outcomes could result in a social tragedy of weakening social values. I show in the next section that the fourth theme has not received adequate attention in the South African context.

Conceptualising Research on Graduate Outcomes in South Africa

University access, throughput and success have largely been measured and analysed in terms of the number of inputs (students gaining access) and outputs (graduation rates and employment). This has generally been presented in terms of race, gender and relevance of field of study in the context of employment opportunities and outcomes. Taking cognisance of racial dynamics in addressing injustices of the past, a simplistic analysis of achievement based on numbers limits a transformative discourse of graduate employment outcomes, especially within a historically disadvantaged group. In this section, I present some of the graduate outcomes studies conducted in South Africa over the last decade. In my analysis, I show that while various aspects of transformation are addressed, the studies have been largely influenced by a skills agenda. Furthermore, studies on graduate outcomes have emphasised a number of quantifiable indicators (such as field of study, race and university type), with little emphasis placed on the structural and personal or human development constraints related to opportunity, agency and freedom (See Table 1).

Using the 1995 October Household Survey (OHS) and the 2002 Labour Force Survey (LFS), Bhorat (2004) analyses trends in graduate participation in the labour market to show increasing unemployment among graduates. In the main, he uses field of study and race as primary lenses for his analysis. He shows that the African population bore the burden of unemployment, with 47 per cent of Africans unemployed compared to 9 per cent of whites; those in education, business studies, and health sciences accounted for more than 60 per cent of unemployed degree holders. In another quantitative study that explores graduate experiences in the labour market, Moleke (2006) identifies a number of demand-supply factors that affect graduate outcomes in the labour market. Besides background factors such as race and field of study (which emerged as key factors affecting the employment outcomes of graduates), the changing structural nature of the labour market was also seen to affect graduate outcomes significantly.

Similar findings were made by researchers in the Development Policy Research Unit (DPRU 2006). They used employers' perceptions to show that employers prefer more experienced graduates to those with higher qualifications. Still from an employer's perspective, Pauw, Oosthuizen and Van der Westhuizen (2008), and Griesel and Parker (2009) investigated skills alignment between graduates and employers. Both studies show divergence (to varying degrees) between graduate skills and skills needed by employers. Griesel and Parker (2009) further highlight a number of attributes considered most important and how South African graduates are largely misaligned to those identified skill sets. Like most studies, their focus was on core, measurable graduate skills in demand by employers.

Bhorat, Mayet and Visser (2012) used data from a graduate destination and student retention survey done in 2005 to identify key factors affecting graduation and drop-out rates at seven South African universities. After sampling 34,548 students across

historically different universities, results show about 60 per cent non-completion and a graduation rate just above 40 per cent. Using a more quantitative approach resulted in race, institutional type, gender and field of study emerging as key factors informing differences in outcomes—both at universities and in the labour market. Race emerged as the common denominator, leading to a conclusion that Africans are significantly more disadvantaged than their white counterparts.

In 2012, the Centre for Development Enterprise commissioned a study on graduate employment, with the focus on level of study. Using Labour Force Survey (LFS) data (1995–2011), Van der Berg and Van Broekhuizen (2012) recalculated graduate unemployment across three levels of “graduateness”—degree, certificate and diploma. They observed that with graduates with a university degree, unemployment was significantly lower (<6%) than suggested by earlier studies. They concluded that while the study does not address other aspects of quality and relevance, a major problem with the South African labour market is lack of relevant skills. These findings confirmed an earlier study done by Kraak (2010), who highlighted the structural shift in the economy from low skills demand to high skills demand. Another destination survey of all 2010 graduates at the four Western Cape universities was conducted by the Cape Higher Education Consortium (CHEC 2013). The study confirmed the role of race and field of study as two of the critical factors affecting graduate outcomes. It further identified matric science results as a third crucial indicator for graduate outcomes.

Rogan and Reynolds (2016) attempt to identify some of these personal factors affecting graduate outcomes. Using schooling, demographic, socio-economic and academic variables, they concluded that students from poorly resourced schools struggle to complete their degree studies; those who complete a degree later struggle to secure decent employment. These perceived trends have been linked both to historical factors as well as contemporary challenges facing the education system from which most of the students (Africans) come. The quality of the basic education system remains a major indicator for graduate access and success, field of study and university type (Walker and Fongwa 2017). The poor quality of school management and resourcing continues to place significant challenges on rural and township schools. Furthermore, legacies of social capital and network are also critical for access to work experience and ultimately employment outcomes.

Table 1 below presents a timeline account of some of the main studies on graduate employability. Two issues are worth highlighting. First is the absence of a national system survey of graduate outcomes which has resulted in regional or institutional studies. Second is that studies on graduate outcomes in South Africa have, to a large extent, focused on quantitative dimensions relating to employer skills demands and the number of graduates employed. University types, field of study and population groups have been some of the main parameters informing graduate outcomes research. While this has provided a technically relevant approach for understanding graduate outcomes, due to

the historical dynamics, reasons abound for a more nuanced methodological and theoretical scope and an expanded approach.

Table1: Summary of core tenets of graduate employment research in South Africa (2004–2018)

<i>Author(s)</i>	<i>Research design or approach</i>	<i>Main findings</i>	<i>Conceptual underpinnings in relation to human development</i>
Bhorat (2004)	Analyses the changing trends in graduate participation in the labour market using the 1995 October Household surveys (OHS) and 2002 Labour Force Survey (LFS).	<ul style="list-style-type: none"> - Relative increase in number of graduates in the labour market. - Graduate employment affected by field of study. 	Conceptually the study limits its analysis to the number of graduates employed and only uses field of study as the main variable to account for (un)employment.
Development Policy Research Unit (DPRU) (2006)	Uses 1995 OHS and LFS of 2002–2005 to study graduate unemployment. The study provides a broader definition of graduates to include all post-matriculation qualifications.	<ul style="list-style-type: none"> - Low tertiary graduate unemployment. - Unemployment varies according to age groups, with those between 15–34 years making up the most unemployed. - Race and field of study also affect employment of graduates. - Employers prefer more experienced graduates to more qualified but less experienced graduates. 	Like Bhorat (2004), the emphasis is on the number of (un)employed. The analysis of numbers uses race and field of study but does not go beyond the numbers to issues of background and opportunities that account for some of the differences.
Moleke (2006)	Explores experiences of graduates in the labour market. The study assesses the factors affecting graduate (un)employment, mobility and relevance of degree. Designed through a follow-up postal survey of 2672 university graduates	<ul style="list-style-type: none"> - Complements existing research. - Identifies a number of demand-supply factors affecting graduate outcomes. - Includes structural changes in the economy as well as background factors such as race and field of study. 	The demand-supply factors are limited to the broader economy and the study does not deal with each student or graduate as an individual. All graduates are perceived as the same and only differentiated by field of study or race. However, as discussed earlier, even within the same race, graduates

	between 1990 and 1998.		experience different outcomes.
Pauw, Oosthuizen, and Van der Westhuizen (2008)	Investigate the changes in unemployment rates of those with tertiary qualifications between 1995 and 2005 by comparing the 1995 OHS and 2005 LFS data.	<ul style="list-style-type: none"> - Lower increase in number of unemployed university graduates (13%) when compared to other non-degree qualifications. - Presence of divergence between graduates' skills attributes and those needed by employers over time. 	<p>Fails to provide a nuanced account for the decrease in unemployed graduates.</p> <p>Focus is also on employers' perspective.</p> <p>No detailed attention to student voices.</p>
Griesel and Parker (2009)	HESA (now USAf) assigned pilot study to assess employers' perceptions of the quality of graduate skills levels in relation to employers' expectations. Analysis based on 99 employers' responses.	<ul style="list-style-type: none"> - Relatively close alignment between the work of HE and that of employers. - Highlights a skills gap between skills and attributes graduates possess and those needed by employers. - Shows a need for more robust engagement between HE and employers and not just a supply-demand relationship. 	<p>Detailed attention is given to the employer's perspective and what higher education can do to enhance graduate attributes.</p> <p>Again, graduates are discussed as a homogenous entity.</p>
Kraak (2010)	Synthesis of graduate employment literature.	<ul style="list-style-type: none"> - Confirms earlier findings of factors affecting graduate employment (race, field of study, etc.). - Argues that high graduate unemployment numbers were due to a structural shift in the economy from low skills demand to high skills needs. 	<p>Continues to engage with the graduate outcome literature at the level of employment and earnings.</p> <p>Assesses how graduate skills align to or diverge from employers' expectations.</p>
Letseka, Cossier, Breier, and Visser (2010)	Use a Student Retention and Graduate Destination Study across seven HEIs to analyse student experiences and pathways through university to employment both from a subject matter perspective and an institutional perspective.	<ul style="list-style-type: none"> - Highlights a number of factors affecting graduate employment: indirectly through student experiences based on race, poverty, institutional changes, and tensions between diversity and success and then directly through labour market demand factors. 	<p>Some chapters focus on typical factors affecting graduate outcomes while others attempt to analyse social issues affecting graduate outcomes, like diversity, poverty and inequality. However, there is less theorising of these factors while econometric indicators continue to emphasise graduate outcomes.</p>
Bhorat, Mayet, and	Use the 2005 Graduate	<ul style="list-style-type: none"> - Graduation or drop-out was significantly determined by 	<p>Attempts a more encompassing analysis</p>

Visser (2012)	Destination Survey and Student Retention Survey for 2002–2003 cohorts at seven South African universities, including 34,548 students in total (20,353 non-completers and 14,195 graduates).	factors such as race, type of institution, gender and field of study. - They go further to show that student household characteristics also play a significant role. - They conclude that Africans are significantly more disadvantaged than their white counterparts.	of the factors affecting employment, but limits graduate outcome analysis to employment and earnings. Fails to engage with the social and human aspects of graduate development for society.
Van der Berg and Van Broekhuizen (2012)	Use LFS data from 1995–2011 to recalculate graduate unemployment based on three levels of “graduateness”—degree, certificate and diploma.	- Significantly low percentage of (degreed) graduate unemployment compared to earlier studies (<6%).	The conceptualisation of the study limits itself to a quantitative tradition which limits an inclusive approach to graduate outcomes.
CHEC Cohort study (2013)	Uses 2010 graduates cohort across the four Western Cape universities to assess pathways from university to work.	- The study identifies seven possible pathways graduates pursue. - Three variables seem to affect graduate employment most: population group (race), matric science results and field of study.	While the CHEC study identifies some variables such as matric science results, there is no emphasis on other contributions of graduates to society besides economic.
Rogan and Reynolds (2016)	Research seeks to link first degree choice and labour market outcomes to a number of factors: viz schooling, demographic, socio-economic and academic.	- Students from poorly resourced schools struggle to complete their first degree choice and later struggle to secure decent employment. There is a need for policy intervention at both supply and demand side initiatives.	It identifies the challenges of students from historically black universities but does not adequately engage with issues of identity, freedom of choice and social (in)justices of the past that continue to affect outcomes.
Walker and Fongwa (2017)	Survey final year students across four South African universities. Some tracked one year after graduation. Academics in the four universities are also sampled as well as employers. They adopt a human development	- The study confirms many of the findings from previous studies in terms of graduate employment outcome by university type, race and field of study. - Furthermore, socio-economic background seems to influence access and ultimately success. - Stronger sense of social citizenship from HDU graduates.	The study begins to interrogate some of the historical issues that inform graduate outcomes from a theoretical base using the human development approach.

	approach to graduate employability.		
Case, McKenna, Marshall, and Mogashana (2018)	Longitudinal narrative account of 73 students at three South African universities. Students are traced six years after their first-year enrolments.	- A main finding of the study is that university success has to be understood in a broader sense than employment gained. - Universities enabled students to become better people in society irrespective of employment or even degree completion.	Using a narrative approach, the research highlights the need for individual voices in the experience and outcomes of university. Graduate outcomes are broadly conceptualised beyond earning or getting and keeping a job.

Source: Developed by the author

As observed from the preceding table, graduate outcomes research highlights an econometric and rate of return analysis of education informed by human capital thinking (Heckman 2008). However, Rios-Aguilar et al. (2011) have shown the inability of the approach to explain how various forms of capital, resources and learning are activated and converted into positive returns outside the formal education space. Additionally, issues of context, power and privilege which enable or constrain graduate outcomes are silent. Furthermore, as shown elsewhere (Unterhalter 2009), the skills-based or human capital approach fails to adequately account for why Africans or women within the South African context experience the low employment outcomes (earnings, level of employment) compared to their white male counterparts at similar levels of qualification and experience (Robeyns 2010).

Lanzi (2007) argues for the need to take into account the effects of implicit social norms (such as labour markets), social inequalities (race, gender and social class), as well as individual freedoms and powers in describing any process of human capital training, accumulation or outcomes, while Webb (2011, 88) cautions universities about reproducing social differentiation rather than social justice. Marginson (2011) expands on the public good as a graduate outcome to include strong values of citizenship, a stronger democratic voice and inclusiveness. Based on the capability approach, Sen (1999; 2009), Nussbaum (2011) and other scholars (Ilieva-Trichkova 2014) highlight graduate outcomes as constituting the capability of “being able to be employed.” This introduces an *external part*, which has been largely overlooked in the human capital literature focusing on skills. This external part shifts the focus of graduate outcomes from the individual to other constraining or enabling factors beyond the individual’s control. These can be personal (gender, race, etc.), social (quality of jobs) or environmental (level of economic growth of the country, geographical location or workforce demand) (Ilieva-Trichkova 2014, 3).

Arguably, employment outcome studies have not adequately engaged with an expanded understanding of graduate outcomes nor accounted for the underlying factors informing

the observed outcomes. Walker and Fongwa (2017) employ a human development and capability approach to study graduate outcomes in South Africa, and identify a number of personal, social and environmental (conversion) factors affecting student access to, experience of and outcome from university. On their part, Case et al. (2018) interrogate the complex and multiple influences on academic and graduate outcomes from a sociological perspective. Informed by these emerging studies, I use the next section to argue for a more expanded approach to graduate outcomes research for South Africa.

Rethinking the Measurement of Graduate Outcomes Research in South Africa

From the preceding discussion, I propose a rethink of research on graduate outcomes in South Africa, based on three premises—methodological, normative and conceptual. Methodologically, as argued by Hinchliffe (2007), a tick-box approach to skills outcome studies undermines the influence of context on students' (graduates') everyday life. He further proposes a lens of three key capabilities developed by Nussbaum (2000) which can be used in analysing the development of “employability skills.” From a normative position, Walker and McLean (2013) have argued for the development of public good professionals, which is beyond the human capital or competence-based approach. This demands a new set of attributes that go beyond having and keeping a job, but that are relevant in developing an inclusive, democratic and healthy society. From a conceptual perspective, the capability approach, on which a later part of this paper focuses, argues that the skills outcome approach fails to account for diversity and differences in circumstance (freedom of opportunity)—and hence differences in skills outcome (freedom of outcomes) (Boni and Walker 2016).

A key assumption of the skills approach is that all graduates are at the same level of cognitive development and socio-economic state; in other words, they have the same “bag of resources” when they access or exit higher education and therefore they should develop similar skills for employment. According to Drèze and Sen (2002, 3), “it becomes clear that judging graduate outcomes by expanding substantive human freedoms and not just by employment gained or income levels, does not in any way deny the importance of the latter fields, but [employment or income] have to be appraised in the light of actual effectiveness in enriching the lives and liberties of people.” Of critical importance in accounting for these outcomes is to interrogate the contextual factors facing students from universities: Is there more value in comparing them with graduates from other races or institutions or comparing them with the best they can be and how to support that outcome? I engage with these questions in the next section using core concepts from the capability approach.

Measuring Graduate Outcomes: A Capability Approach

Fundamentally, the capability approach (CA) is a normative framework for evaluating social arrangements, policies and the measures of wellbeing (Nussbaum 2011; Sen 1992).

From an educational viewpoint, the CA recognises education as intrinsically valuable as an end in itself. While recognising the economic benefits of education, such as getting a job, the CA argues for a deeper analysis of graduate outcomes by first looking at “people’s capabilities to function” (Robeyns 2005, 95). The CA aims to broaden the informational basis of evaluation by refocusing the analysis on people as an end in themselves, and in becoming and doing what they aspire to be—and not fundamentally as a means to economic activity (Sen 2009). While the provision of skills and competencies improve a person’s economic outputs, it does not necessarily inform how choices of work, happiness and life are made.

The two main strands of the CA are opportunities for *capabilities* and *functionings*. Capabilities relate to the choices and opportunities available to a person to live the life they have reason to value (Sen 2009, 232). Of critical importance here is the notion of freedom defined as “the range of options a person has in deciding what kind of life to lead” (Drèze and Sen 1995, 10). Sen (2009, 231) goes further to argue that “a person’s freedom ... in terms of opportunities, is judged to be lower than that of another if she has less capability—less real opportunity—to achieve those things that she has reason to value.”

Functionings are achieved or realised capabilities (Nussbaum 2011, 25). Functionings assess how capability inputs—such as education, a degree, competencies and social or cultural capital—are converted into realised capabilities (Otto and Ziegler 2006). An example is using a university degree to obtain employment of choice (intrinsic) and not just for the sake of having a job (instrumental). The concept of capability and functionings is thus closely linked with the opportunity aspect of freedom in terms of “comprehensive” opportunities, and not just focusing on what happens at “culmination” (having a job) (Sen 2009, 231–32). Assessing graduate outcomes should therefore focus on two aspects: (1) the capabilities realised or functionings, and not only the utility outcomes, such as getting a job; (2) such an assessment of functionings should not be limited to the preferred alternative, but should also consider if one actually has the freedom to choose from other worthy alternatives such as not having a job (Saito 2003, 26).

For Sen (1992), the economic growth of a society—or, in this context, access to employment for a graduate—does not help one fully comprehend the structural or even the personal factors that enable or limit one’s outcomes. There is thus a need for a broader and more expanded framework for analysis. In this light, Nussbaum (2000, 237) posits, “the central capabilities are not just instrumental to further pursuits (of employment for example) but valuable in their own rights”; they are held to have value in themselves, and are able to significantly complement the skills or human capital discourse (Chiappero-Martinetti and Sabadash 2014). So, in answering the question—How can the CA broaden graduate outcomes research?—the notion of conversion factors becomes helpful.

Means versus Functionings: A Place for Conversion Factors

As mentioned earlier, a key shortcoming of the skills discourse that I engage with in this section is the embedded assumption that all students access higher education with equal cognitive and social development and can all make use of available resources (a degree in this case) with similar outcomes. The notion of conversion factors illustrates this better. An individual's ability to convert capabilities or resources into functionings depends on a number of usually unequally distributed *conversion factors* (Sen 1999). These could be personal (gender, physical ability, race), social (social norms, beliefs and policies) or environmental factors (climate, infrastructure, physical location, etc.) and they have implications at individual, family, community, regional or national levels.

If education and a university degree is perceived as a good that can be exchanged for wellbeing (a job), then it becomes important to focus on the nature of the degree, as a good, and the process of not only acquiring the right degree for such an exchange, but also on the personal and external forces that affect that process. The quality disparity across public universities in South Africa is well documented (see CHEC 2013). A typical student studying for a biochemistry degree at a historically disadvantaged university faces institutional and personal constraints that a typical student at a historically advantaged university does not. These constraints range from readiness for university to financial constraints, language challenges, academic quality such as laboratory facilities, student–staff ratio and exposure to potential employers (Unterhalter 2009; Walker and Fongwa 2017).

The CA, through a conversion factor analysis, aims at understanding how social arrangements expand (or constrain) people's capabilities and functionings. Understanding how personal conversion factors (race, social class, intelligence, disability or other personal characteristics) affect one's ability to convert resources into capabilities—and ultimately into valued functionings (Nambiar 2013)—or how social arrangements (including gender practices and beliefs, social norms, social hierarchies and government policies) affect graduate outcomes between a male or a female with the same qualifications and experience, could significantly enrich the graduate outcomes discourse. Sen (1992, 5) argues that “a person's capability to achieve functionings that he or she has reason to value provides a general approach to evaluation of social arrangement” responsible for the achieved outcomes.

Within the broader historical context, and especially within higher education, huge disparities persist in the experience of graduates across institutions. This is in many ways influenced by perceptions of hierarchy and quality that are not always verified, but which continue to influence employer perceptions (Walker and Fongwa 2017). While some institutions are well resourced and can favourably compare with universities in the global North, other universities within the same system struggle to provide basic resources and support for students' teaching and learning needs. These social structures influence a student's ability to convert a degree into decent employment.

Another view on the complex relationship between goods or services and functionings achieved looks at environmental conversion factors. These could include geographical location and communication facilities (such as the Internet) which determine the extent to which a degree can lead to desired functionings. A student from a rural university with a limited industrial base will struggle to gain access to internships during his or her degree programme, while a student in the economic hub will have easy access to experience opportunities. This difference in opportunities could significantly affect their outcomes after graduation. Data from the Higher Education Management Information System shows that while some traditionally historically advantaged universities have a student–staff ratio of 12:1, others such as comprehensive universities reflect ratios of 28:1, and universities of technologies have an even higher ratio of 45:1 (HEMIS 2016a; 2016b). These differences reflect a hierarchical structure of quality and resourcefulness partly due to historical inequalities. Similarly, social conversion factors such as social networks will ultimately affect employment outcomes, which is not accounted for in the skills approach as first generation graduates generally struggle to secure employment with little social capital.

As shown in Figure 1, evaluating graduate outcomes is a complex process due to a number of interactions and experiences that begin even before a student accesses university. The types of resources with which one gets to university begin to influence the freedoms and opportunities to develop aspired capabilities and functionings. A student who values becoming a medical doctor or engineer, but has poor science and mathematics grades from secondary/high school, will experience constraints in achieving that functioning. Meanwhile, a fellow student from a rural school with the required grades to become an engineer, which she aspires to become, might not have the financial ability to study engineering and might end up studying biochemistry, due to constraining financial abilities. I argue that while assessing graduate outcome as the type, nature and level of employment across particular parameters (across race, gender and university)—as is currently the case—is important, the experiences, context, constraints and opportunities for freedom for capability and functionings need to be examined as well.

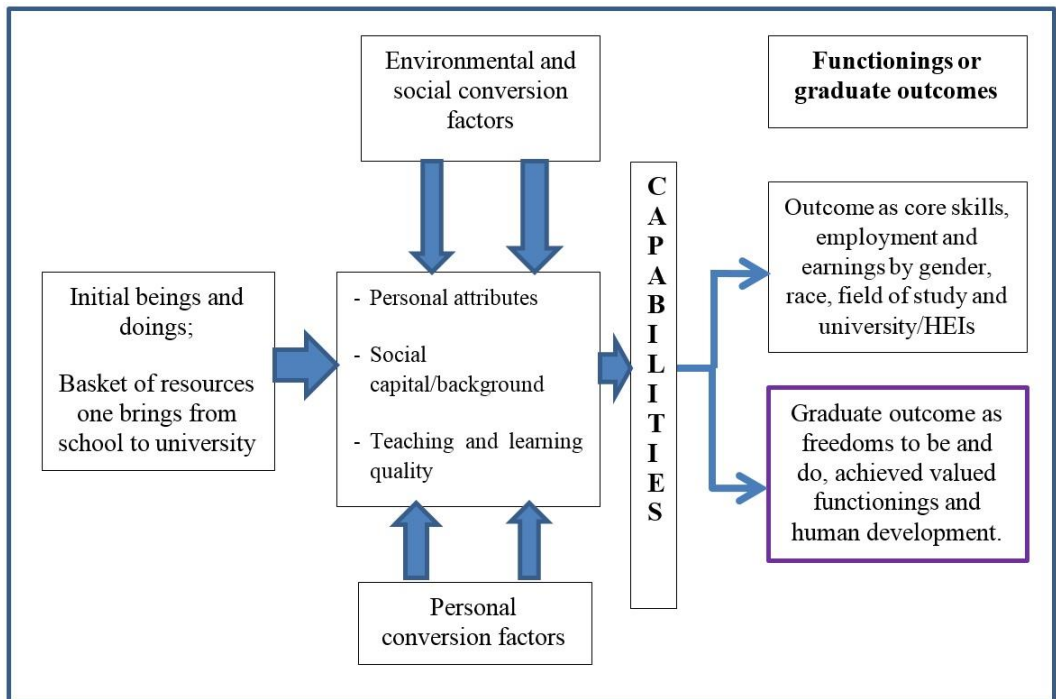


Figure 1: Framework for an expanded account for researching graduate outcomes

Conclusion

Graduate outcomes research in the global literature has been dominated by the skills based or human capital agenda. While calls for human development dimensions have grown in the international context, researching graduate outcomes in South Africa remains largely driven by the skills-to-job approach. The skills-driven account has enhanced the policy dimension of graduate outcomes studies, due to its measurable indicators—such as job, salary and level of employment—along critical transformation indicators of race, gender, university type and field of study.

However, in a society like South Africa's, with historical challenges of inequality and social injustice, any account of graduate outcomes that fails to capture the constraints (personal, social and environmental) that result in the observed graduate outcomes patterns remains narrow. Such an approach also fails to adequately acknowledge the human development aspects involved in the education process and ultimately limits our understanding of higher education's contribution to development broadly (see Walker and Fongwa 2017).

The CA, as a normative framework, has been proposed as a broader conceptual tool in interrogating graduate outcomes. Using the notion of conversion factors, graduate outcomes research is interrogated by focusing on notions of equality in opportunity (of

access and success) and the need to address constraints in achieving aspired outcomes. Using the personal, social and environmental conversion factors, the CA can offer a nuanced re-examination of graduate outcomes research. Besides promoting social justice and equality of opportunity and outcomes, the CA can be applied as a framework within which the university experience—including graduateness, skills, competences and human development attributes—can be conceptualised and evaluated more broadly in achieving valued wellbeing.

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