The future of teaching research in the social sciences

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Abstract
Current literature on teaching research methodology in the social sciences highlights the changing nature of our world in terms of its complexity and diversity, and points to how this affects the way in which we search for answers to related problems (Brew 2003, 3; Tashakkori and Teddlie 2003, 74). New ways of approaching research problems that relate to the demands of practice need to be explored. This article presents a future possible scenario for teaching research in the social sciences based on a discussion of the changes in the way that knowledge production is viewed, and the effects of this on South African higher education. In doing so, it draws on the literature on changes in methodological movements in the social sciences. The future is predicted in terms of keywords that are prevalent in these bodies of literature such as pragmatic, interdependent, mixed methods, problem-solving, innovative and socially accountable knowledge.

INTRODUCTION
At the XVIth World Congress of Sociology held in Durban from 23–29 July 2006, the President of the International Sociological Association stated in his conference invitation message that our professional duties are to ‘mobilize all our intellectual capital: to think, to diagnose, to explain, to draw scenarios for the future, and to provide some guidance on how to get there from here’ (Sztompka 2006). This article explores a future scenario for teaching social science research in a changing world. Concurrent with the way in which globalisation is affecting our view of knowledge production, and specifically higher education, the literature on social science research shows that our thinking about the function of research in society is different to past thinking. The possible outcomes of these altered ways of thinking need to be explored in terms of how we should teach research. This article is divided into three sections. Firstly, there is a brief presentation on the changes in the way in which knowledge production is viewed and the effect of this on South African higher education. The second section looks at three methodological movements in the literature on social science research. In the third section a future scenario is sketched for teaching research in the social sciences.
GLOBALISATION, KNOWLEDGE PRODUCTION AND HIGHER EDUCATION

As changing international trends in higher education make their mark on South African policy, tertiary institutions need to adjust the way in which they deliver education to future generations of South Africans. According to Scott (1997, 23), ‘the knowledge industry is a key sector within the post-Fordist economy, and higher education systems are a key component of that industry’. Post-Fordism (or neo-Fordism as Robins and Webster (1999, 170) prefer calling it because of the continuing similarities with its preceding era) is characterised by features of globalisation and concepts such as skills and knowledge, inter-sectoral cooperation, flexibility and so on. Globalisation signifies the increased interaction that is taking place between communities across the world, and which is opening channels for debate and the interchange of knowledge. One of the implications of this global interaction is that sets of values common to homogenous groups are being challenged in order to address the plurality of cultural values that occur within the global village. Globalisation is thus intensifying the need to re-examine the link between theory and practice so that the international community can face the challenges of addressing differences in values and the way in which each community perceives knowledge (McNair 1997, 33).

Yet globalisation has seen economically developing regions such as Africa marginalised from the mainstream of new societies that base their capital on information. As Castells (1998, 161) points out, ‘globalization proceeds selectively, including and excluding segments of economies and societies in and out of the networks of information, wealth and power, that characterize the new, dominant system’. Being in the embryonic stage of joining the global economy, South Africa will need to ensure that it can successfully integrate into this village and not be sidelined in the process. Accompanying the pressure that globalisation is placing on higher education is the international trend to make higher education more accessible to various marginalised communities such as the working class (thus referred to as massification or democratisation). Economic and social demands that workforces need to be more educated and trained than in the past implies that knowledge is no longer dominated by ‘elite academic cultures’, and that higher education institutions must look towards integrating knowledge generated in partnerships with industry and the state (Kraak 1997, 56).

This opposition to transcendental knowledge claims (universal truths that apply to all people) and the dominance of elitist academic positions on knowledge production have lead to major changes in the structure and delivery of higher education programmes (Kraak 2000, 32). Lyotard (1984, 48) recognised this trend more than two decades ago: ‘Higher education has become increasingly defined by its capacity to create and produce skills indispensable to competition in world markets and the efficient maintenance of internal social cohesion’. Yet, universities are losing their monopoly over knowledge and need to reconsider their position vis-à-vis the way they organise the qualifications they offer. This step is necessary to
ensure that universities are able to deliver a different type of worker: ‘Innovation is at the heart of this new system – the ability to continuously reinvent products and add value to existing designs’ (Kraak 2000, 3). This implies that education systems will be required to produce such individuals, that is, employees who can function in these learning organisations.

**Mode 1 and Mode 2 learning**

Gibbons, Limoges, Nowotny, Schwartzman, Scott and Trow (1994, 1) coined the terms ‘Mode 1’ and ‘Mode 2’ knowledge production to distinguish between past and present ways of doing research and the subsequent learning that takes place. Questions that would illuminate the differences between Mode 1 and Mode 2 could include: Who generates information? Where is the information generated? How is the information structured? Who has access to this information? How is the information presented to people? What impact does this information have on society? The answers to these questions are summarised concisely by Kraak (2000, 34) in his comparison between elitist and mass, open higher education institutions. Accordingly, elite systems tend to be discipline-based, closed in terms of the diversity of the people and structures who participate in them, and hierarchical in management, while delivery of education takes place via face-to-face contact. In contrast, the latter type of institution is more open to different groups of people, encourages partnerships with government, the private sector and other major economic or social role players, and offers various modes of delivery. Most importantly, the organisation of learning is not limited to interaction within a discipline, but occurs across fields and even institutions. This makes knowledge transdisciplinary, as it includes elements from all disciplines into a type of hybridised science that cannot be fitted back into the separate subjects of Mode 1 learning.

According to Gibbons et al. (1994, 11) and Scott (1995, 144), this transdisciplinary and transinstitutional nature of Mode 2 is what characterises the new way in which organisations will function. Knowledge is not something held within elite academic circles for the sake of academia, but is generated within the context of real-world problems that need to be solved in industry. Hence, Kraak (2000, 30) refers to these solutions as ‘socially accountable knowledge’ because of their meaningful contribution to society or their applications in industry. The solutions are also characterised by heterogeneity in that different processes are used in innovative ways to find answers. The implication of the above discussion is that learners who enter higher education systems should exit as transdisciplinary problem solvers and innovative knowledge producers.

According to Kraak (2000, 16), the various policies mentioned imply that Mode 2 research is more useful to address the demands of the current world economy and thus should be ranked above Mode 1 research. This position has, however, been questioned by some individuals and a critique is set out below.
Should Mode 2 learning and research be afforded a privileged place in higher education?

The heading of this section asks the important question of whether Mode 2 should supplant Mode 1 education and research in tertiary institutions. Should educators uncritically accept a different way of structuring learning, and should they therefore change curricula by developing programmes that are flexible, transdisciplinary, focused on problem-solving, interdependent, relevant to a specific context, funded from many sources and so on? Mode 2 knowledge production has profound implications for the way in which we teach students and for the kind of knowledge they will need to compete in a society that demands specific kinds of skills. Another assumption of Mode 2 learning is that there are vast differences between the current curriculum and the type of syllabus that proponents of Mode 2 would put forward. Muller (2000, 50) warns that ‘[academics] may for convenience simply teach their Mode 2 involvements instead of what the curriculum requires’ and that academics will be less involved with students as a result of commitments to their own research agendas. An academic’s position as a research consultant to various sectors of society may thus be afforded a privileged place and affect the kind of teaching that they do (Brew 2003, 4). An advantage of this may be that students will receive more up-to-date content in the curriculum and thus be better prepared for the types of positions they will occupy in the real world of work (Muller 2000, 50).

Robins and Webster (1999, 195) identify a crucial point regarding the future of the university within the context of a post-Fordist society. It is Robins and Webster’s contention that the characteristics of this economically-driven era (constant change, for example) are defining the learning that is taking place at some universities. Learning programmes are thus being adjusted to suit an economic agenda. Also, universities have been influenced by international societal trends that hold institutions accountable for how they spend their money. In this environment, business traditions are mimicked in order to generate nongovernmental income and the marketisation (or commercialisation) of higher education takes place to avoid the criticism that ‘universities have not managed to supply appropriate outputs, that graduates have most conspicuously lacked the ‘transferable personal skills’ that would make them useful to employers’ (Robins and Webster 1999, 196). In South Africa ‘governments and employers are calling on education providers to develop generic transferable skills in learners’ (Department of Education 2002). To facilitate this, the Department of Education (DoE) has written generic level descriptors to describe these skills so that they can be developed and integrated into specific curricula. Mode 2 subscribes to this marketisation agenda as it focuses strongly on partnerships with industry and delivering students with skills that fulfil industrial needs. Critics of this trend, such as Slaughter and Leslie (1997, 242), have pointed out what they believe the consequence will be of the wholesale adoption of Mode 2: the destruction of traditional academic goals, what Robins and Webster (1999, 168) refer to as ‘narratives of decline’. For example, research for its own sake will be replaced by research that serves the purposes of industry.
An added dimension to this phenomenon is the freedom that post-Fordism affords adherents of postmodernism to advocate the postmodern university. If society is ‘flexible’, ‘constantly changing’, ‘plural’, ‘reflexive’ and ‘diverse’ then these traits should be reflected in the institutions of education that serve this society. The Department of Education (2002) acknowledges this trend by providing generic level descriptors that ‘can act as a starting point for curriculum planning and quality assurance for providers within and without formal education, for example for employers offering work-based modules/unit standards’. The problem with this approach is aptly illustrated in the citation below:

Thus the university can no longer be identified by virtue of its separation from the outside world, while simultaneously big companies ... are becoming more conscious of their roles as creators, disseminators, and users of knowledge – a definition not altogether different from that of a university (Robins and Webster 1999, 214).

The question that can consequently be asked is: What right does the university have, above other sectors in society, to be the sole distributor of knowledge? Also, how will the university distinguish itself from other role players such as industry? These questions are difficult to answer. Although Robins and Webster (1999, 217) make a case for people to remain loyal to the university based on its sentimental ideals of ‘disinterestedness, critical inquiry, open debate, rigorous examination of evidence’, this idea seems a rather emotional appeal to nostalgia. Is it enough to ensure the future of the university in a rapidly changing society?

The effects of Mode 2 learning on higher education policy and research in South Africa

Notwithstanding the reservations of certain academics and alternative views on the merits of Mode 2 learning, new higher education policies have been implemented (to lesser or greater degrees) in South African tertiary institutions. The South African government has recognised and integrated the trends of globalisation and massification in its policies affecting higher education. Indeed, Kraak (2000, 18) identifies clear signs of Gibbons et al.’s (1994) and Scott’s (1995) work in the documents released by government, such as the National Commission on Higher Education’s (NCHE) final report, A Framework for Transformation released in 1996, the DoE’s Green Paper on Higher Education Transformation released in 1996, the Education White Paper 3: A Programme for the Transformation of Higher Education also released by the DoE in 1997, and the 1997 Higher Education Act. Kraak (2000, 21) categorises the NCHE report into five areas of recommendations regarding the transformation of higher education. These recommendations overlap loosely with the characteristics of Mode 2 learning institutions as set out briefly above.

An essential aspect of the recommendations for transformation that is relevant to this paper deals with the changes that are touted by policy for research practice. The NCHE (1996, 126) accepts the changing dynamic of knowledge creation,
which encapsulates the themes of globalisation, massification, transdisciplinariness and the practical contribution of research to societal problems. The financial support made available for research projects also reflects these changes: ‘Funding is almost always from more than one source requiring different forms of interaction, accountability and management. Knowledge is increasingly trans-disciplinary and trans-institutional (a widened social base participating in its construction)’ (NCHE 1996, 126). Besides the new types of general skills needed for students to cope in the knowledge economy, undergraduate courses in research methodology should reflect the different way in which research is practised in this environment. A module in research methodology ‘will thus form part of and needs to fit into a broader programme’. Students should be able to demonstrate certain skills on completion of a course that reflect the competencies they have acquired (Robins and Webster 1999, 199). More specifically, graduates should be equipped to secure funding (depending on the context they practise in) for research that is relevant and accountable, that is based on partnerships across various sectors of society, and that makes use of different disciplinary fields.

Robins and Webster (1999, 169) argue that this new context is driven by socioeconomic imperatives, which means that the structure and content of higher education will have to be linked to the requirements set by industry to train workers who will cope in this environment. As noted earlier, many of these features have made an appearance in documents released by government departments tasked with transforming the education sector in South Africa. For example, the NCHE (1996, 7) states that ‘higher education institutions will increasingly have to offer a greater mix of programmes, including those based on the development of vocationally-based competencies and skills needed in the workplace’. In particular, statements have been made about the role that social scientists could play in achieving government’s goals. These activities include policy research and creating models to resolve systemic tensions in central and provincial levels of government in practice (White Paper on Science and Technology, Department of Arts, Culture, Science and Technology 1996).

The assumption that can thus be articulated from the literature discussed above is that the curricula of undergraduate research methodology courses at South African universities need to be re-examined in the light of the changing context of higher education. Tothill and Crothers (1997, v) agree that the class of education received by students in the social sciences, as future researchers, can be improved on. The general aim of this paper was therefore to sketch a picture of the future of undergraduate research methodology courses in order to make suggestions about transformative actions that can be taken to improve the status quo.
THREE METHODOLOGICAL MOVEMENTS

Research methodology in the social sciences has been characterised by debates between quantitative and qualitative approaches. The current literature on research methodology shows that there is a third methodological movement: mixed methods research, which combines the first movement of quantitative research and the second movement of qualitative research. Some authors (e.g. Gorard and Taylor 2004, 149) argue against too firmly linking one’s identity as a social researcher to particular paradigms and methodologies. Researchers may, for example, make distinctions on a methodological level instead of seeing research as partly epistemological and partly pragmatic. In other words, they choose a methodology and then make everything else fit in with that methodology. We also tend to teach students that quantitative research is linked to positivism while qualitative research is primarily anti-positivist, which is not always the case. (For more on this topic see Wagner and Okeke 2006.)

Nonetheless, academics who teach research methods courses often feel compelled to include a certain content in the curriculum. This may be for a variety of reasons, including time limitations, personal epistemology, the application of inductive and deductive methods in different areas of research, the issue of funding (many research grants have positivistic aims and objectives that oblige researchers to use specific research approaches), the way in which textbooks are structured, and so on. However, with the qual-quant debate fading in favour of the third movement, there seems to be more equality for methodologies in the minds of people who teach research methods courses. Wagner (2003) surveyed the content of 82 social science research courses across 24 South African universities and conducted in-depth interviews with academics who teach undergraduate research courses to explore their beliefs about how the curriculum should be constructed. She found that 61 of the courses included both quantitative and qualitative content, but with a much stronger emphasis on the former. It is interesting that the interviewees (n=9) who taught a mixed methods course described quantitative and qualitative research as equal in status, yet continued to make quantitative research the most fundamental aspect of their curriculum by including more topics commonly linked to this approach.

Equality for methodologies implies a pragmatic approach to conducting research. In Tashakkori and Teddlie’s (2003, 74) opinion, methodological plurality is required for the social sciences to remain useful to society. Seel (2000, 1) suggests that a scientific metadiscourse be established that will accept different methodological approaches to researching the social world; it ‘has to deal with the assignment of different methodological approaches to special types of situations of social practice in a pluralistic society and thus demonstrate the usefulness of scientific psychological knowledge’. In academic circles authors such as Watts (1992, 491) argue that choosing a qualitative approach for psychological research should be for pragmatic and not ideological reasons. When teaching qualitative methods, Ashworth (1995, 79) recommends beginning with the practical aspects of qualitative research and moving to philosophical aspects at a later stage. Qualitative and quantitative methods are
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seen as compatible in a paradigm some refer to as *pragmatism*. This approach seeks to enable researchers to use any methodology that they see fit to answer the research question or achieve a specific aim (sometimes referred to as *paradigm relativism*, Tashakkori and Teddlie 1998, 5).

According to Polkinghorne (1992, 235), neither the claim of absolute truth nor the claim that all knowledge assertions are equal is acceptable. A choice must be made by students and professionals alike between alternatives; actions must be decided on that influence people’s lives. Polkinghorne (1992, 235) states succinctly that ‘we need to learn how to make judgments without being able to depend on the surety of our knowledge. We need to develop pragmatic procedures for developing knowledge claims and providing psychological services “in-between” certainty and relativism’. Patton (1996, xxii) concurs that ‘the methodological present acknowledges the value of different methods for different kinds of questions, and judges designs on the appropriateness of the match, i.e., the extent to which a particular method fits a specific problem’. Patton thus advocates a pluralistic approach and identifies the fit between the method and the research problem as the key element in deciding on an appropriate approach for a social study.

More recently, Tashakkori and Teddlie (2003, 62) have argued that research practice is dictating that students, instead of being expected to indulge in paradigmatic debates, should be enabled to implement pragmatic solutions to social problems, for example, by using combinations of quantitative and qualitative methods, whichever best suits the research question. Gorard and Taylor (2004, 174) also point out that students should first be taught the generic issues that will equip them to conduct robust research instead of reinforcing so-called paradigmatic identities and epistemologies for quantitative and qualitative research.

A FUTURE SCENARIO FOR TEACHING SOCIAL SCIENCE RESEARCH

In Figure 1 there are some keywords from the literature discussed in this article that may indicate the kind of researchers we will need to produce in future.

From the information displayed in Figure 1 it seems that we are moving away from only teaching students traditional content and the fundamentals of practising methodology correctly towards an environment of innovation, socially accountable knowledge, reflection, pragmatism and equality of methodologies. However, such a scenario elicits many questions. For example, how would we find the space to teach students traditional content as well as reflective thinking? What link would (or should) there be to substantive disciplines? Should academia bow to this pressure (mostly) from the marketplace and become what I like to call ‘econodemia’? Does the university have the right to remain the sole distributor of knowledge? Are we facing a new hegemony that preaches methodological (and other) pluralism? Also, is this future scenario unique to the South African context?
A review of some of the latest literature on social science research methodology courses (writings derive mostly from the UK and USA) reveals a few teachers’ perspectives that relate to the last question. For example, Waite and Davis (2006, 403) draw attention to the UK government’s prioritisation of learning research and collaboration skills, and argue that students need to be motivated by the meaning and applicability of research in order to acquire the necessary capabilities. One way of ensuring motivation is by exposing students to real-life problems that mimic their future work contexts, thus equipping them with transferable skills. Another way described by Waite and Davis is to form collaborative groups of students with the aim of helping one another to develop research skills. This line of thinking is similar to that revealed in the Department of Education’s policies and briefly discussed in the first section of this article.
Navarro (2005, 420) describes how the US education policy climate has awakened the old paradigm wars (the quant-qual debate as well as the debate on practitioner research) due to the desire for scientific evidence and discourses of accountability, and the subsequent pressure from funders and publishers to use quantitative or mixed methods designs. According to Navarro, qualitative research and the teaching thereof is threatened by the privileging of quantitative and mixed methods that she blames on the ‘adherence to ideas of material capitalism [which] results in adopting a business model to inquire about and solve human problems, and educational success if defined by high-stakes test results’ (Navarro 2005, 429). Adopting an economic model for higher education could thus result in sidelining research approaches that do not provide numerical scores as they are perceived as not being able to ‘measure’ up to scientific standards. (What constitutes science and empirical research is, of course, debated, but this will not be elaborated on in this article.) Onwuegbuzie and Leech (2005, 383) argue, however, that the schism between quantitative and qualitative researchers is problematic and that there are several advantages to being a pragmatic researcher. They identify benefits that are not linked solely to economic agendas, such as being able to merge the macro and micro levels of an issue being studied. Furthermore, they argue that stakeholders will not be able to rely on the results of research that restricts itself to either quantitative or qualitative methods. Although these authors do not specify what they mean by ‘stakeholders,’ this idea resonates with Kraak’s concept of socially accountable knowledge.

CONCLUSION

There seem to be differing opinions on what the future of teaching social science research should hold. Some academics would prefer to maintain the status quo of being able to teach one method or both quantitative and qualitative research with an emphasis on the distinction between the two. It appears, however, that change is inevitable and that the direction of this transformation correlates with current higher education policy.

If we are indeed moving to a different future for teaching research methods in the social sciences, this change will have implications at many levels. This includes the content and structure of the curriculum, the texts we write for students, the way in which we assess students, how our time as academics is spent (for example, in networking and producing socially accountable knowledge instead of in basic research), what criteria will be used to judge whether or not we have produced successful graduates, how universities are funded, how relevant society will perceive us to be, and how universities will in future justify their existence vis-à-vis other sites of knowledge production. This list could go on; and this article may have elicited more questions than answers. Some indications of future research courses are the following:
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- **Suspending the quantitative-qualitative debate** in favour of teaching a curriculum that reflects the needs of the social world and the knowledge industry.
- **Preparing students for the real world of research** instead of only for future academic studies (such as Masters and doctoral degrees) that require advanced research skills.
- **Blurring disciplinary boundaries** in favour of methods courses that can be applied across the social sciences.
- **Cultivating critical thinking skills** that prepare graduates to make meaningful contributions to society or apply solutions in industry in heterogeneous and innovative ways. Graduates will thus be transdisciplinary problem solvers and innovative knowledge producers. This would be achieved by providing students with case studies and scenarios that accurately reflect research practice.
- **Developing and teaching a pragmatic theoretical basis** for mixing methods in research projects.

**NOTES**

1 According to Robins and Webster, a working environment of mass production and repetitive actions marked the period of Fordism. This is in stark contrast to the post-Fordist era where workers have to deal with constantly changing problems.

2 Transferable skills could be defined as competencies that students should be able to demonstrate which, although they are not directly related to a specific discipline, will allow them to market themselves across different markets. They are ‘general cognitive abilities [that] can be transferred from one context to another’ (Smith 1984, 87).

3 Level descriptors attempt to describe the nature of generic learning achievement, its complexity and relative demand at each level of a qualifications framework. In summary, they are:

- broad generic qualitative statements against which more specific learning outcomes can be compared and located
- used to determine the pegging of qualification types on a framework
- general and indicative of more specific curriculum decisions, which means that they can never be prescriptive or fully comprehensive
- a shared understanding of the education and training advancement achieved at each level (DoE 2002)

4 Kraak focuses on the NCHE report as he argues that many of the recommendations made in the report have been carried through to the Green and White Papers and the Act already mentioned.
REFERENCES

DACST, see Department of Arts, Culture, Science and Technology.
DoE, see Department of Education.
NCHE, see National Commission on Higher Education.


