

Teaching Atlas.ti™ in South Africa: Reflections on Doctoral Preparedness

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ABSTRACT Teaching qualitative data analysis using computer software such as Atlas.ti™ to masters and doctoral students as well as university colleagues has presented a number of challenges together with moments of inspiration. The researcher has offered some brief reflective considerations, which have been conceptually located in postgraduate research and doctoral preparedness. Given the low number of PhD students who graduate in South Africa (SA), many scholars have inquired into the lack of progress of postgraduate research. Qualitative research, and in particular qualitative data analysis has not enjoyed structured support at universities, let alone computer assisted qualitative analysis support. Little is written in the qualitative data analysis literature about the impact and value of using Atlas.ti™ in postgraduate work, particularly in the South African context. Therefore this reflective paper hopes to make some inroads into this field of study.

INTRODUCTION

In a recent publication (Smit et al. 2013) the authors reflected on doctoral capacity building from a framework of aid to innovation, focusing specifically on the South Africa-Netherlands Research Programme on Alternatives in Development (SANPAD). Understanding the complexities of doctoral capacity building, a study commissioned by the Academy of Science for South Africa (2010), entitled 'The PhD study: an evidenced based study on how to meet the demands for high level skills in an emerging economy', bears testimony to the deep concerns that has a significant impact on South Africa's development as a whole and its global competitiveness. South Africa produced only 1274 PhD graduates in 2007, which translates to 26 per million of the population (49 million in 2007). In 2008 there were even less, 1182, 24 per million. This compares badly given that a small country such as Portugal has 569 PhD graduates per million of its population. Germany, which is a developed country for example has 297 graduates per million of the population. The doctorate output in South Africa, which is a developing country, is currently well below the number of doc-

toral graduates required to support a competitive knowledge based economy. In fact it is envisaged that by 2025, 6000 students will graduate with a PhD in South Africa. It is therefore clear that research capacity building at the doctoral level, is a priority. However, the current higher education system is struggling with the many capacity constraints of the inherited apartheid system. It must strive for global competitiveness, and also focus on transformation within these challenging contexts, as well as on social justice and democracy. Programmes such as SANPAD and SANTRUST are thus seen as critical to building doctoral capacity, including research capacity especially in terms of affirming and prioritising Black women candidates (Smit et al. 2013). Little research is done on such research capacity training, especially qualitative data analysis, and its impact and value of using Atlas.ti™ in postgraduate work, particularly in the South African context.

Postgraduate Research and Doctoral Preparedness

The World Bank report on PhD's in Africa (2008) reflected on strategies for achieving advancement in higher education. This report revealed that locally prioritised and developed programmes with low cost linkages to international networks were better able to succeed and be sustained in that they were embedded in the postgraduate centres and professional networks that were around them. South Africa needs more

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staff at the highest level of academic qualification and experience, and, to build transformation and a reconfigured demographic profile in South African higher education. Also, South Africa needs more Black women in the higher echelons of the sector. It is against this décor, that the SANPAD programme, which continued from 1997-2013, 'Facilitating the building of research capacity in South Africa', was developed at an appropriate time in South Africa's higher education trajectory. To highlight some of the critical dimensions of the SANPAD programme, which directly addressed the gaps within doctoral education, Hoebink, Van der Lans, and Padayachee (2003, 11) reported as follows: the programme 'builds capacity by supporting and involving individuals, and through collaboration between institutions and between South Africa and the Netherlands...with "the target group...mainly post graduate students and underprepared researchers" ... particularly those from under-represented groups and institutions ... Black female researchers form a clear majority' (Smit et al. 2013).

Another programme, SANTRUST, which started in 2013 based on the learning's from SANPAD, draws on its leadership of the aforementioned development partnership with the Dutch (South Africa Netherlands Partnership on Alternatives in Development-Sanpad) and from its own self-directed sustainability programme that evolved from the Dutch development partnership to offer an indigenous model for doctoral capacity building. The SANTRUST PhD Proposal Development Programme, exemplifies a South-led, South-owned capacity development model for Doctoral candidates, at proposal stage, and who have, been primarily from Southern Africa and Africa. The SANTRUST programme provides five modularised contact sessions, which are facilitated, by international teams of scholars and lead by South African academics, through the central components of a Doctoral Proposal and, through association, the components of a Doctorate/PhD proper. At the same time as the candidates work through the modularised programme, their supervisors are also included in the programme: through a formal programme for the first and last modules, as well as more organically between modules, where candidates, through their own agency, explore their learning on the SANTRUST programme with their supervisors. Candidates write up the sec-

tions of their proposals iteratively throughout the annualised programme and then defend the polished proposal in front of their cohort, supervisors and SANTRUST Assessors jointly provide formative feedback on the written proposal and the live defence. Candidates thus emerge with a deeply and widely interrogated proposal that is then presented to Higher Degrees Committees of their respective Universities (Smit et al. 2013).

Smit et al. (2013) further explain that from the genesis of the overarching idea for such a programme, to the formal written-up curriculum; from the piloting of various formations of the programme to the constant self-challenging of the configurations and results of the programme, the SANTRUST programme has rooted its intellectual journey and leadership firmly in the South African context. While SANTRUST affirms the value of international scholarship and draws on the same for the benefit of the candidates on the programme, the terms of engagement and thought leadership emanates from South African scholars. The candidates are the strongest debaters in terms of keeping the curriculum rooted in and relevant to their needs as they explore their positioning within global knowledge networks, as they navigate this terrain in the light of their escalating entry into the most exclusive academic 'club' of all: the PhD. It is the SANTRUST value system that keeps this process open and inclusive. This programme has repeatedly delivered success for a number of years of its existence and has ensured that the cohorts have consistently graduated with Doctoral degrees, despite being part time students and working academics/practitioners in multiple roles, within three to four years. Many of these doctorates are now supervisors and/or leaders in their Universities and consistently cite the SANPAD and SANTRUST programme as being the seminal experience that awoke them as academics.

METHODOLOGY

Little has been written in the qualitative data analysis literature about the impact and value of using Atlas.ti™ in qualitative postgraduate research, to enhance research capacity, particularly in the South African context (Smit 2002a,b, 2005). This reflective piece is in the form of a self-narration, which unpacks the researcher's challenges of teaching Atlas.ti. It also presents

a potential of expanding the possibilities of teaching Atlas.ti™ to South African postgraduate students and faculty staff. This self-narrative serves as personal meaning construction of the research phenomenon, as the researcher reflected on years of teaching on the SANPAD and SANTRUST programmes as well as Atlas.ti workshops at various universities across the country. The data used in these reflections is based on 12 years of teaching the software across the country, including Ethiopia and Mozambique. The researcher has been facilitating computer assisted qualitative data analysis software programmes on the SANPAD programme since 2002 and is now teaching Atlas.ti™ in the sustainability programme SANTRUST, which was described in the previous section. In addition to teaching Atlas.ti on the SANPAD and the SANTRUST programmes, she has also taught at the African Doctoral Academy, at the University of Stellenbosch (US). The need on the African continent is great, as many invitations to facilitate computer assisted qualitative analysis software workshops reach her email. To summarise her experience and her source of data, she facilitated also staff development workshops at: Chris Hani Baragwaneth Hospital (Soweto, Johannesburg); Directorate: Research at Government Communication and Information System (Pretoria); Health and Development Africa (Johannesburg); Human Sciences Research Council (Pretoria); Institute for Security Studies (Johannesburg); Johannesburg: Soul City (South African Broadcasting Corporation, TV 2); Medical Research Council (Durban); Medical Research Council (Pretoria); Nelson Mandela Metropolitan University; SANPAD ~ SANTRUST (South Africa); South African Qualifications Authority (Pretoria); Tshwane University of Technology (Pretoria); University of Johannesburg; University of Kwa-Zulu Natal (Durban); University of Pretoria; University of South Africa (Pretoria); University of Stellenbosch ~ African Doctoral Academy; University of the Free State; University of the North West (Potchefstroom Campus); and the University of the North West (Vaal Triangle Campus).

RESULTS

The SANPAD programme ended in December 2013. It was for this reason that an alternative programme, namely SANTRUST with di-

verse funding structures was developed in order to continue with capacity building for doctoral students. It is beyond the scope of this article to explain what the detailed curriculum of the programme entailed, except to say that an in-depth research design and methodology course is offered over a period of 6 weeks. Briefly, the programme consisted of a theoretical component which addressed the literature study, formulating research questions, the research design, the research methodology, as well as qualitative and quantitative data analysis strategies. The methodology included qualitative and quantitative data collection and analysis. The data analysis module included Atlas.ti™ and IBM SPSS (Statistical Package for the Social Sciences). Atlas.ti™ was introduced in module 4, covering two full days. Students were exposed to manual qualitative analysis strategies in the previous module. The teaching sessions were tailored to the needs of the students. The module was mostly taught conceptually, adding to the deeper understandings of grounded theory (Husein et al. 2014) as well as qualitative content analysis including the latest texts by Miles et al. (2014), Grbich (2013), and Schreier (2012). Considerable time was spent on the notion of coding (Saldaña 2013) in order to shed some conceptual light on the tools and technical applications in Atlas.ti™. This seemed to work well. Taking into account that often many quantitative students attend these workshops, searching and reviewing the literature review with Atlas.ti™ was also instructed (Onwuegbuzie et al. 2012). This has inspired students to use Atlas.ti™, who would normally not use the software. And lastly, the managerial component of Atlas.ti™ with regards to easy access of data and storage (Rademaker et al. 2012) was well received by students.

DISCUSSION

Given this context, one could assume that all is reasonably well on the South African front with regards to Atlas.ti™ teaching for postgraduate and doctoral research preparation. On the one hand I could concur, on the other, since the researcher started this intense journey across the country, there have been many challenges. Such challenges include the lack of university support, limited supervisor knowledge, and limited availability of workshops. The illusion that

Atlas.ti™ will ‘do’ the analysis still exists. This thinking stems from a quantitative approach to data analysis. Also, few students actually end up using the software precisely for these reasons. Or alternatively, if they do use the software, they use it superficially, because their in-depth understanding of the nuances and complexities of qualitative data analyses is deficient. Most students have an inadequate repertoire of qualitative data analysis. Often Atlas.ti™ ‘gets the blame’ for a superficial analysis, because the knowledge of qualitative data analysis is underdeveloped. Another perpetuating hurdle is the lack of supervisor support, since some are ignorant and have preconceived ideas about the how and what of computer assisted qualitative analysis software.

CONCLUSION

With an increased awareness of Atlas.ti™ as computer assisted qualitative data analysis software, field text analysis and write-up may benefit at the level of description and at the level of interpretation. Qualitative, quantitative and mixed methods studies may also benefit from this approach of analysis. Also of significance is the manner in which a literature search as well as a literature review can be simplified and assisted using this software, directing readers to the conceptual link of qualitative analysis, using constant comparison analysis, domain analysis, taxonomic analysis, componential analysis and theme analysis for reviewing the literature, which can be facilitated by using in Atlas.ti™. It is evident that Atlas.ti™ can be used in powerful ways, for theoretical and empirical data.

RECOMMENDATIONS

Given the many institutions where the researcher has facilitated computer assisted qualitative analysis software workshops, South Africa still lags behind in comparison to Europe and the United States regarding the institutionalization of qualitative analysis software programmes and the accompanying support. The demands for utilizing such programmes are challenging at the level of methodological appropriation and at the level of technical application and therefore require additional train-the-trainer workshops. It is for such reasons that the re-

searcher recommends that universities adopt a structured and organized approach with continued support systems for postgraduate qualitative research in order to guarantee faster throughput. Quantitative research is well-supported by most universities. Given the equal weighting of qualitative, quantitative and mixed methods research, postgraduate and faculty research could only benefit from more structured and organized research capacity programmes. Such programmes should prove fruitful both in the short term and in the long run as South Africa seeks to develop a doctorate corps to enhance and develop all spheres of the societal system.

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