The mapping project: Defining key research areas in the Department of Psychology at the University of South Africa

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ABSTRACT
This article presents a study on the key research areas being investigated by current and past Master’s and Doctoral (M & D) students in the Department of Psychology at the University of South Africa (Unisa). The sample consisted of M & D students’ dissertation/thesis titles during the academic year of 2010. The titles were thematically analysed. Our study reveals that the most researched themes are ‘culture’ and ‘therapy and psychopathology’. The second half of the study used a similar approach, but focused on past M & D students who had graduated between 2000 and 2009. Abstracts were collected for 192 students and analysed for biographical information, themes, sub-disciplines and additional brief thematic categorisation. The results indicate that the majority of the abstracts did not report typical research components such as theoretical framework, data collection method or the study design. We also found that women are more represented among M & D students at Unisa than men and that a preponderance of topics centre around issues related to clinical psychology.

Keywords: culture; Master’s and Doctorate students; psychology; research areas; therapy and psychopathology

Doing a dissertation is often compared to the process of giving birth, a sentiment that anybody who has actually completed post-graduate studies would agree with on some level. Students pour hours and sometimes years into completing their research. Not only do they have to read academic journals and other key academic texts on
the topic, but also they need to consult news articles and the internet. At the end
of the journey, a student arrives with a text chronicling their work, complete with
citations, ready for submission. This extensive process – as Suber (2008) describes
it – is “sufficiently rigorous” (p. 26), perhaps even more so than is the case for peer
reviewed journals. When the final day for submission arrives, not only the student
but also the supervisor experience some anxiety, because the supervisor’s reputation
is also at stake. If all goes well the external markers accept the thesis/dissertation.

What happens to all that hard work? The University of South Africa (Unisa), like
most university libraries, keep several copies of post-graduate student dissertations
and theses; two copies are kept in the open collection and one is stored in the
archive. The cruel reality is that at the end of the road the dissertation or thesis
will sit in a library with little hope that it will get cited some day. Suber (2008)
says about theses that “they constitute the most invisible form of useful literature
and the most useful form of invisible literature” (p. 26). There is some good news,
however. Unisa’s graduating students are required to submit an electronic copy of
dissertation or thesis; most of these are available online for download from the
Unisa library website (http://uir.unisa.ac.za/handle/10500/506). This is a growing
trend in universities around the world (Copeland & Penman, 2004; Fineman, 2003;
Goodfellow, 2009; Hall, 2002). Electronic Theses and Dissertations (ETDs) can
normally be found on the educational institution’s library website, although in
some instances access is not open to the public. Numerous digital libraries have
addressed this problem by collaborating with international universities to create
an index of repositories for ETDs. Locally, the National ETD portal has indexes
of a little over 23 000 titles from 13 national university libraries (http://www.neted.
ac.za/). Internationally, the Networked Digital Libraries of Theses and Dissertations
(NDLTD) (http://www.ndltd.org/), similar to the National ETD, indexes ETDs from
international universities. A search of keywords, from individual thesis topics, in the
NDLTD will invariably show some interesting results, although access to individual
theses is not always possible. Open access is still not universal – for various reasons
that exceed the scope of this article. However, it is good to know that theses and
dissertations are more accessible now than they were 10 years ago. The internet
provides a wider audience for this hitherto invisible but useful literature.

Online databases of postgraduate research is not only useful as a source for
additional literature, but can also be used to reveal interesting research trends. In
South Africa Onyancha and Jacobs (2009) used a national bibliographic database
to examine research production of postgraduate research activities in the natural
sciences. Biology was found to be the most researched discipline. The authors also
recommend that research should be concluded with the publication of findings, thus
providing greater exposure. Jamali and Nikzad (2011) compared the relationship
between the title of a dissertation to its download and citation rates. The results
indicated a positive correlation between downloads and citation number; question
titles were cited less but downloaded more; long titles had fewer downloads than short
titles; and titles accompanied by colons received a smaller number of downloads and
citations. Shek, Hua Lee and Yan Tam (2007) determined that in postgraduate social work theses in Taiwan a majority of students prefer qualitative to quantitative and mixed methods of research.

In this article we present a study, which is similar to those reviewed above, that is based on the vast collection of research by postgraduate students in the Department of Psychology at Unisa. This forms part of a mapping project which is aimed at providing a reflexive overview of psychological research at Unisa and, more broadly, in South Africa as a whole. The project was conducted in two phases, as described below.

**PROJECT LANDSCAPE**

At the outset of the study the intention was to only focus on current Master’s and Doctoral (M & D) students, but this was later expanded to include students from previous years as well.

The administrative side of the study involved keeping track of all current student activity. We did this by correlating various sources of information into a database. Once the student tracking database was in place we isolated a group of active postgraduate students who were officially registered for the academic year 2010. The registered titles were then thematically analysed to determine the key themes.

After this the study shifted focus to past students. For past students we were able to make use of abstracts in addition to thesis titles. Abstracts should provide information relating to the aim of the study, the research design, together with other technical details such as sampling techniques and sample groups, and the results of the study. We assumed that the abstracts would provide a good synopsis of the research undertaken; however, this proved not to be the case. This is discussed in more detail in the results section below.

**PROCESSES AND ANALYSIS**

We created a postgraduate student tracking system using Google Docs, as Google Docs allows multiple team members and staff to have simultaneous access to documents. A Google Docs spreadsheet can easily be shared between many people, and allows for remote access to a single file that can be edited by any user who has permission to do so. Four spreadsheets were created: Doctorates, MA Research, MA Clinical, and Alumni. Physical student files, the university’s electronic student system, as well as visits to supervisors for confirmation of student titles were all employed in the data gathering process. Thus it not only created a reliable database of all current students in the psychology department, but also met an internal departmental need for a reliable tracking system and data source for the thematic analysis of registered research titles. The titles were then grouped according to major themes that were
further broken down into subthemes for clarity. The results of the thematic analysis are reported in the next section.

Following the initial thematic analysis of titles, a follow up study was conducted. Abstracts of 192 M & D dissertations and theses were captured into a database. These consisted of the three main qualifications. Only degrees conferred from 2000 to 2009 were included. We used the Unisa library ETD repository to locate and capture the abstracts.

Each abstract was analysed according to the following dimensions: The constructs examined or themes explored by the study; the sample group; the geographic and institutional setting of the research; the type of data collected; the design framework; the sub-discipline of psychology under which the research falls; and finally the theoretical and epistemological frameworks used. Descriptive statistics, such as the number of degrees conferred over the 10 year period per qualification and the male to female ratio, were also calculated. To facilitate the data gathering process an online Google form was created for each abstract. The advantage of using a Google form is that data can be automatically inserted into a structured database. A link to the online form and other resources used can be found in Appendix 1.

Figure 1. Proportion of dissertations and theses on different themes

RESULTS

Thematic analysis

The final database contained 133 titles for thematic analysis. We identified 11 major themes and numerous sub-themes. In general, most of the research involved one of the following key areas: Cultural issues (29), therapy and psychotherapy (23),
teaching and learning (15), peace and violence (15), counselling (14), organisational issues (11), measurement (8), HIV/AIDS (7), personality (4), developmental psychology (4), and consumer issues (3). Figure 1 shows a chart with the frequency of each theme.

In order to explore themes in more detail, we created a mindmap using a program called Sciplore (http://sciplore.org/software/sciplore_mindmapping/). This is shown in Figure 2.
Abstract analysis
A total of 192 M & D degrees in Psychology were conferred by Unisa from 2000 to 2009, of which 76 were Clinical master’s, 61 Academic/Research Master’s and 54 were Doctoral degrees. Figures 3, 4 and 5 show the male to female ratio over the years for each qualification. Women appear to be well represented with the number of men being significantly lower, particularly for Master’s degrees.

**Figure 3.** Male-female ratio for Doctoral students, 2000-2009

**Figure 4.** Male-female ratio for Clinical students, 2000-2009
Constructs and themes

The constructs identified during the thematic analysis were used to broadly classify each abstract. The predominant themes were: Therapy, culture, teaching and learning, peace and violence and personality. Constructs such as developmental psychology, organisational issues, measurement, HIV/AIDS, counselling, cognition, theoretical psychology and consumer issues were at the lower end of the frequency count. A word ‘cloud’ was generated using a free online generator (tagxedo - http://www.tagxedo.com) to visually display the most frequently used words by setting the font size of each word relative to the number of times it appears in the abstract analysed. Figure 6 shows the timeline and distribution of the four main themes from 2000 to 2009. Figure 7 shows the word cloud generated from the collected constructs and themes.

Figure 5. Male-female ratio for academic/research Master’s students

Figure 6. Broad themes per year
Methods used

A striking, and somewhat alarming, finding was that most abstracts provided scant information on the design and other methodological aspects of the studies conducted by M & D students. Only one aspect of methodology, namely sampling, was reported in some detail in most abstracts. A wide variety of sample groups was studied. Figure 8 shows a word cloud generated of the sample groups reported in the abstracts.
Sampling methods used

The majority of abstracts did not mention a sampling method. Of those that did, the majority (17%) indicated purposive sampling (see Figure 9).

Sub-disciplines

Figure 10 represents the frequency count for different sub-disciplines of psychology. The main sub-discipline was clinical psychology, with social and abnormal psychology in second and third place.
Figure 9. Sampling methods used

Figure 10. Subdiscipline of psychology
CONCLUSIONS AND RECOMMENDATIONS

This article provides only a brief overview of the research generated over the space of 10 years by postgraduate students in the department of psychology at Unisa. The findings show that a large majority of abstracts did not contain the information that is normally required for an academic abstract. For example, the theoretical framework used was not mentioned in a majority of the abstracts, and information on methods used and results obtained were often very limited. In our view this is an unexpected and important finding. We strongly recommend that, in future, students and supervisors should take more care to ensure that the abstract represents a proper synopsis of the dissertation or thesis. It is our hope that this will encourage and facilitate further research reflecting on research trends in the department of psychology at Unisa.

The advent of the internet has changed the way we perceive and access information. Information technology allows access to massive amounts of data. Currently much effort is still required to meet the challenges of access, but increasingly the focus will shift to developing platforms for effectively navigating ETDs and using the information to detect patterns and track trends. Given that ETDs are readily available online, scholars can begin to explore new methods of using this growing resource for expanding upon research fields of interest. Our initial thematic analysis of the thesis titles is a good example of how to make a small collection of research findings useful.

Citations, concepts and methodologies are all useful in research, but it is difficult to find such information without having to peruse the entire text. Modern software tools, however, enable advanced search options. A single thesis may contain many hundreds of citations and tracking these manually is a very time-consuming task. Dissertations and theses are considerably lengthier than journal articles, and the writing style is typically less rushed, and consequently dissertations and theses typically also cite a far larger range of sources (Suber, 2008).

It is fortunate that a range of automated citation tools has become available in recent years. One example is a tool developed by Nanba, Anzen and Okumura (2008) to extract citations from Japanese patents. The authors intended to examine problems researchers have when searching patents by means of traditional keyword searches. Patents may be worded differently to describe similar concepts and ideas, so a keyword search would not display the desired results because different words may have been used to describe similar concepts. The extraction of the citations and a comparison between patent citation lists would show important relationships not otherwise considered. A similar tool could be used to extract the citations from a few dissertations; in this way, a researcher could focus on reading the most cited literature first and then begin to branch out to other less frequently cited literature.

Another interesting development is described by Richardson, Srinivasan and Fox (2008) who explored the development of a Knowledge Discovery System based on Web Services (KDWebS). This could assist with searching ETDs, for example by automatically generating concept maps, which are visually organised maps of
the central concepts in a dissertation and how these link with other concepts or similar ideas. Automatic concept mapping becomes especially powerful when it is combined with traditional thematic analysis. It also shows that the way we search for information can be greatly improved by simply presenting it in a visual medium.

The next phase of the mapping project will be to make the results available online and to build an online database exclusively for dissertations and theses, with Customisable Search Options (CSOs). For example, a researcher could group a number of dissertations according to the sample group, the epistemological framework employed, or according to identified themes. Navigating ETDs with traditional keyword searches is limited as linked concepts may not be mentioned. A limitation of the CSO system is its inability to generate the appropriate information automatically, that is computer automation. A possible solution would be to make use of ‘crowdsourcing’, a technique that involves inviting a large group of people to make small incremental contributions to an analysis (Brabham, 2008), as has been done in pharmaceutical research by Ekins and Williams (2010).

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BIOGRAPHICAL NOTES

Nick Forssman is currently completing his Master’s in Psychology (Research Consultation) and is a Postgraduate Research Assistant in the Department of Psychology at Unisa. He is interested in cognitive psychology, neuropsychology and social psychology.

Doreen Mudavanhu is a PhD student in the Department of Psychology at Unisa. She completed her Master’s in Psychology at Unisa in 2008. She is currently working in the Psychology Department as an independent contractor. Her research interests include HIV/AIDS, Xenophobia, forced migration, orphans and vulnerable children.
REFERENCES


APPENDIX 1. ONLINE RESOURCES MENTIONED IN THE ARTICLE

Electronic dissertations and theses in South Africa – http://www.netd.ac.za/

International database of dissertations and theses – http://www.ndltd.org

Online form used in this study – https://docs.google.com/spreadsheet/viewform?hl=en_US&formkey=dGNtWWxKR0xUS1NRODJPSTVDSGZmYWc6MQ#gid=0

Sciplore mind mapping tool – http://sciplore.org/software/sciplore_mindmapping/

Wordle word cloud tool – http://www.wordle.net/

Tagxedo word cloud tool – http://www.tagxedo.com/