



# The role of institutional research in research on doctoral education

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# Institutional research defined

- AAIR: ... support campus leaders and policy makers in wise planning, programming, and fiscal decisions covering a broad range of institutional responsibilities. Can include research support to senior academic leaders, admissions, financial aid, curriculum, enrollment management, staffing, student life, finance, facilities, athletics, alumni relations and many others. <http://www.airweb.org>
- EAIR: ... relationship between research, policy and practice in higher education. ...has developed from its roots as a European version of the US-based Association for Institutional Research (AIR), widening its sphere of interest to policy at all levels, institutional, national and international. <http://www.eairweb.org>
- AAIR: ... a range of activities involving the collection, analysis and interpretation of information descriptive of an institution and its activities, including its students and staff, programs, management and operations. The findings assist institutional leaders (in both academic and administrative domains) by informing their planning and decision-making. <http://www.aaair.org.au>

# Institutional research defined

- SAAIR: (1) ... advance research and analysis leading to the production of improved management information for understanding, planning, management and operation of higher educational institutions and agencies; (2) ... encourage development and application of appropriate methodologies and techniques from disciplines to further such research, analysis and planning; (3) ... encourage the collection, interpretation, exchange, and dissemination of information with respect to higher education and its institutions; (4) ... further the professional development and training of individuals engaged in institutional research and analysis or interested in its utilisation in planning, management and resource allocation, and in the improvement of higher education. <http://www.saair-web.co.za>

# Concerns/issues in research on doctoral education

- Dropout rates high, throughput slow (e.g. full-time vs. part-time)
- Low completion and production rates (in some fields/disciplines)
- Funding/subsidies (as affected by the above)
- Quality assurance issues (e.g. admission criteria and examination processes)
- International standards and benchmarks (e.g. comparability)
- Inconsistencies in the HE and postgraduate system
- Inexperience and research un(der)preparedness of candidates
- Lack of training and inexperience of supervisors
- Expectations of the doctoral production system  
(5 000 graduates by 2030 in RSA; currently about 28 per million.  
Has to increase to 100 per million. No mention of quality)

# AREAS FOR INQUIRY : NATURE OF THE DOCTORAL DEGREE

## CONTEXTUAL/ENVIRONMENTAL FACTORS

International, national and market demands/influences on quality, plus the functions of doctoral education, career projections and employment opportunities.

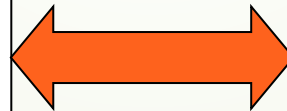


## The doctoral degree



## ADMINISTRATIVE FACTORS

Contexts in which the degree is offered/conducted/undertaken and all the factors that apply to every stage of it.



## ACADEMIC FACTORS

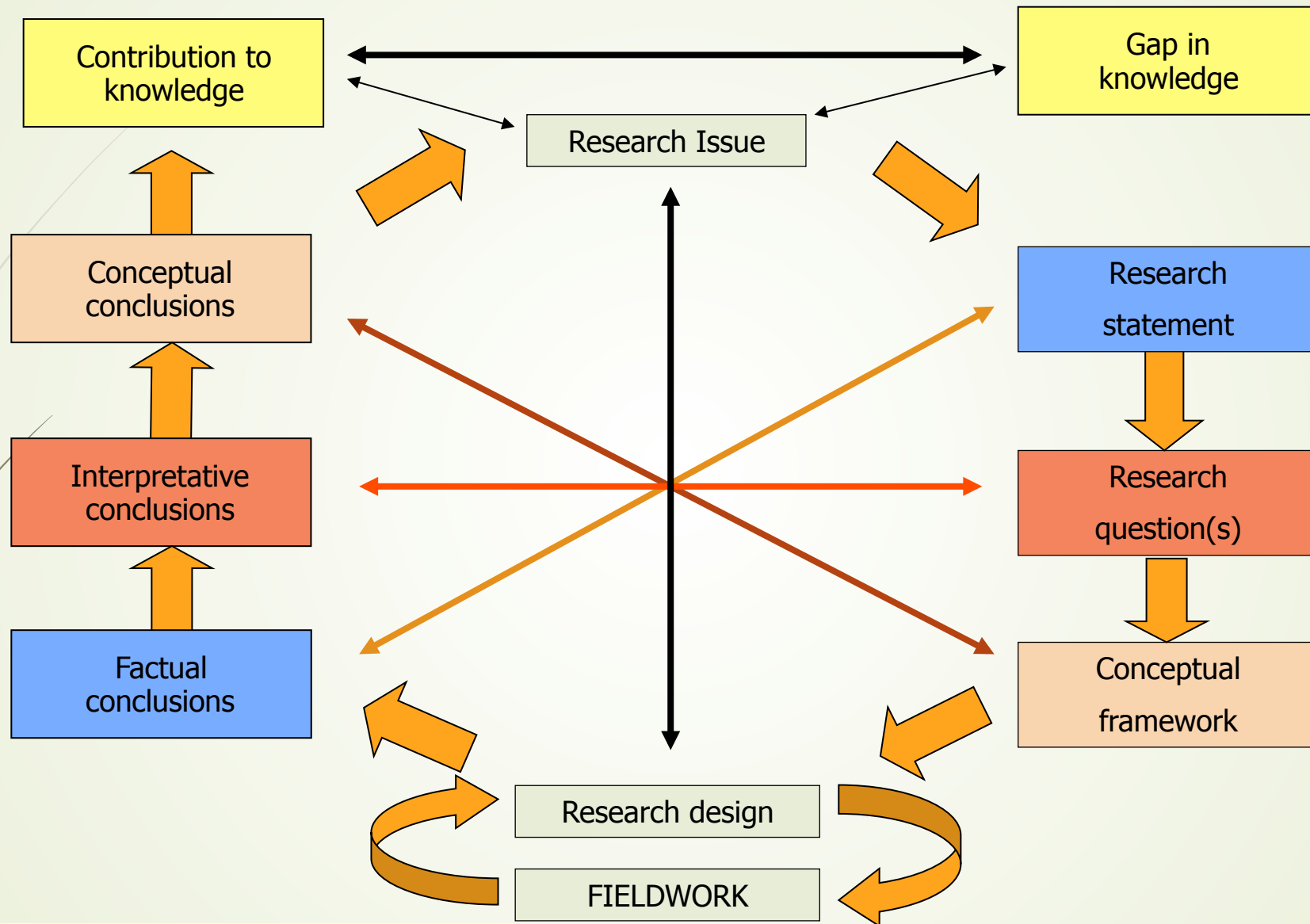
Scholarly/research considerations that are or should be self-evident in quality theses that are submitted and examined.

## SCHOLARLY COMPONENTS OF DOCTORATENESS

Contribution to knowledge	Stated gap in knowledge	Explicit research questions	Conceptual framework
Conceptual conclusions	<b>SYNERGY AND DOCTORATENESS</b>		Explicit research design
Research questions answered			Appropriate methodology
Coherent argument	Engagement with theory	Clear/concise presentation	'Correct' fieldwork

Source: Trafford and Leshem, 2011

# Visualising doctoral research



Source: Trafford and Leshem, 2011





# Research on doctoral education (past 8 years)

- International studies
  - National studies
  - Institutional studies
  - Studies conducted and reported by bodies/graduate schools/centres/ units/ individuals.
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# Research on doctoral education: International studies

- North America
- Europe
- Australasia
- Other countries outside Africa
- Africa

# Research on doctoral education: International studies

## ➤ North America

- The formation of scholars (Walker et al. 2008)
- The global PhD (Nerad & Hegelund 2008)
- The doctorate and the disciplines (Lovitts 2007; 2009)
- PhD graduation and research (Gumport 2011)
- PhD programme structures in Canada (Saliba 2012)
- Doing a PhD (Quality Council of Ontario, Canada 2013)

# Research on doctoral education: International studies

## ➤ Europe

- The Salzburg Principles (2005)
- Doctoral programmes in Europe's universities: achievements and challenges (European University Association, 2007)
- Quality Assurance in Doctoral Education – results of the ARDE project (EUA 2013)

# Research on doctoral education: International studies

- Australasia
  - The changing PhD (Group of Eight 2013)
  - Graduate research: good practice principles (DDoGS 2014)
  - Review of Research Policy and Funding Arrangements (DoET, Australia, Currently, 2015)

## Research on doctoral education: International studies

- Countries other than EU, North America and Australasia
- Centre for Innovation and Research in Graduate Education (e.g. reports on Malaysia, Russia and others)
- Globalization and its impact on the quality of PhD education (Nerad & Evans 2014) (e.g. reports on India, Czech Republic, Mexico)

# Research on doctoral education: International studies

## ➤ Africa

- CHET (comparative studies on selected African universities)
- Expanding and Sustaining Excellence in Doctoral Programmes in Sub-Saharan Africa: What needs to be done? (AAU Summit, 2013).
- South Africa as a PhD hub in Africa? [Cloete, Sheppard & Bailey, in Cloete, Maassen & Bailey (Eds), 2015]

# Research on doctoral education: Nature of international studies

- Research needs and doctoral programme design and production
- Factors influencing time to degree; factors influencing student decisions to discontinue
- Preparing future academics (formation of scholars)
- Students' study experiences; diversity issues
- Doctoral supervision (doctoral pedagogy)
- Impact of the doctorate; career paths and employment of doctoral graduates; publishing and patenting from completed doctoral studies
- Examination issues related to the doctorate
- Equity and participation in doctoral studies.



# Research on doctoral education: National studies

- Assaf Report (2010) – the position of the doctorate
- CHET research (models of the PhD; PhD graduates from Africa in SA; Knowledge production and the doctorate in SA)
- CHE reports (Profile report: Postgraduate statistics 2009)
- CREST research (the PhD pipeline; the doctorate as contributor to research capacity in SA; effectiveness and efficiency patterns and trends)
- HESA (now Universities SA): Developing the next generation of researchers (2011)
- NDP (includes the role of doctoral education in a knowledge economy)

## Research on doctoral education: Institutional studies and ad hoc projects – some preliminary findings

[N=25; n=18]

- A. Exemplary contribution
- B. Some contribution
- C. No contribution, but aware of need
- D. No contribution and apparently unaware of need.

## Research on doctoral education: Institutional studies and ad hoc projects (n=18)

Classifica- tion	Trad U's	Comp U's	UoTs	Total
A	3	0	0	3
B	2	2	0	4
C	5	1	5	11
D	0	0	0	0

# Research on doctoral education: Institutional studies and ad hoc projects (examples reported)

- Doctoral throughput rates, finding reasons for delays and internal inefficiency (most studies)
- Longitudinal studies on doctoral progression
- The PhD as preparation for careers
- Research integrity related to the doctorate
- Internationalisation and inter-cultural supervision
- Doctoral writing and writing support
- The PhD by publication as an alternative study option
- Supervision models and supervision options
- Quality of the doctorate.

# Research on doctoral education

- Conclusions
- Internationally, but also in South Africa, the field of doctoral education research is increasingly active. It boasts a well-established body of literature.
- International studies on the doctorate are well established and reported
- National studies of considerable scope and impact, also well-reported
- Studies by bodies other than IR offices are being done and readily available. Mostly uncertainty about its dissemination and impact
- IR and other offices (e.g. postgraduate support and research development units) seem involved in research on the doctorate and relevant related issues (i.e. other than supplying and reporting Hemis and Rims data). Reports are generally confidential and inaccessible. Its impact seems significant, but better co-ordination of the effort may be needed. Further research into IR at institutions also needed.

# Research on doctoral education

## ➤ Implications

- A more co-ordinated research agenda for inquiring into doctoral education needed (nationally and institutionally)
- Issues apparently covered well: Enrolment, progression, throughput, completion, time to graduate, demographics, equity, doctoral supervision, doctoral writing.
- Issues in need of being covered better: Quality issues (candidate selection, quality of supervision and supervisor development, quality of theses and research outputs), 'migration' and internationalisation issues (international and African), disciplinary differences, comparative studies (national and international), inconsistencies and inequities in the doctoral production system at institutions and in SA.

**Thank you!**

