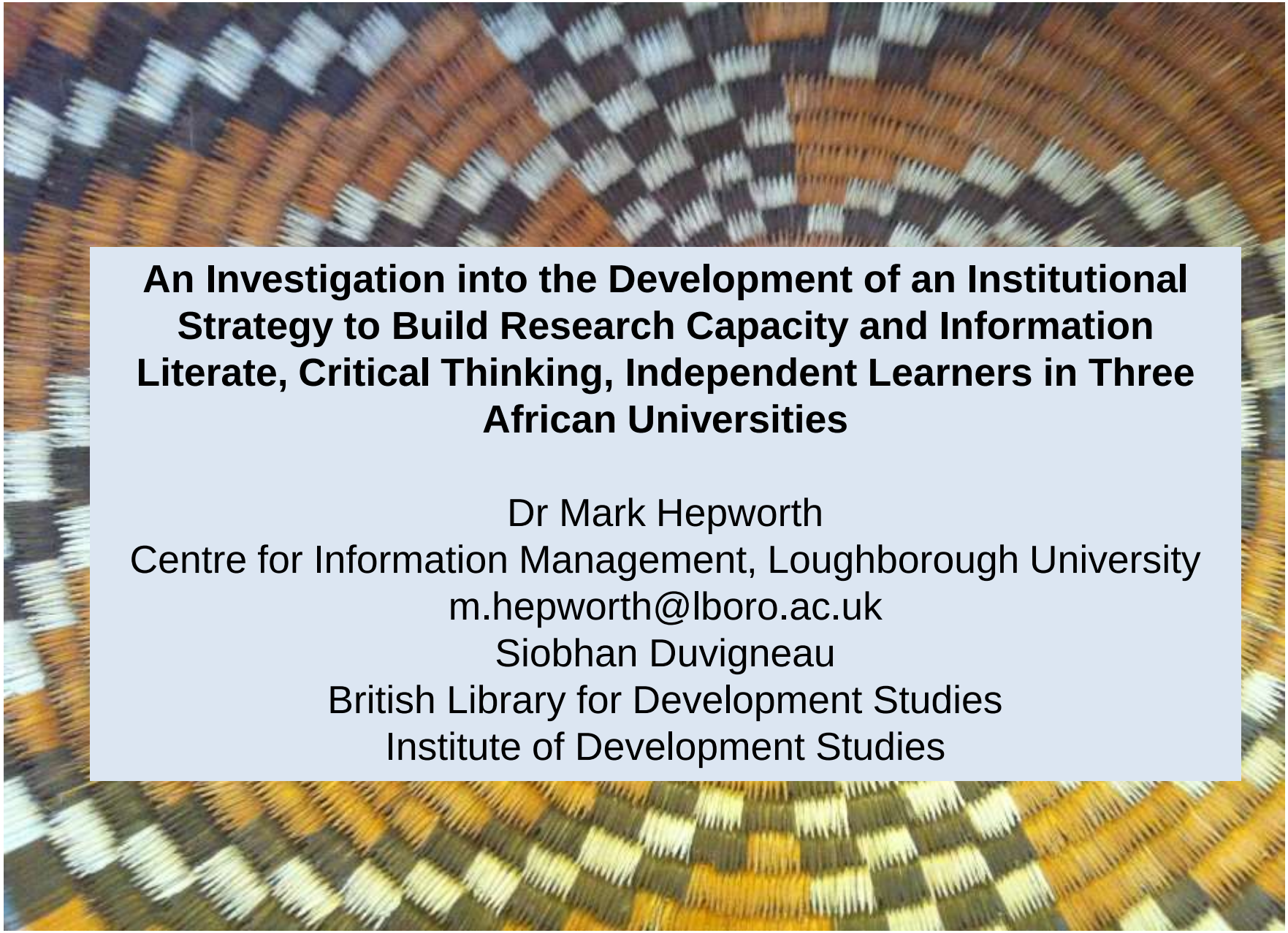

An Investigation into the Development of an Institutional Strategy to Build Research Capacity and Information Literate, Critical Thinking, Independent Learners in Three African Universities

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Aims and objectives

Aim of research: to investigate in collaboration with staff at the University of Botswana, the University of Zambia and Mzuzu University, in Malawi, the current situation with regard to the development of information literate, critical thinking independent learners.

Objectives included:

- identifying the current vision for developing students' information and research capabilities;
- Understand those factors that pose challenges or barriers;
- Identify a strategy that would help build research capacity and develop information literate, critical thinking independent learners.

Methodological orientation

- The research strategy is ‘grounded in a participatory world view’ where ‘the perspectives, perceptions and interests of those immediately concerned’ were valued (Reason & Bradbury 2004)
- Exploratory research placing emphasis on the thoughts and experiences of senior staff (academics, librarians, ICT and support staff).
- Via semi-structured interviews with staff in Zambia and Malawi and a two and a half day workshop in Botswana - structured using the Outcome Mapping methodology (a participative approach that recognises the social and complex nature of social phenomena)
- Interviews were transcribed and along with material gathered in the workshop (flip charts and video), analysed thematically and clustered under:
  - the need for information literate, critical thinking independent learners;
  - current indicators of a lack of capabilities;
  - current institutional support and current initiatives;
  - Challenges and solutions

Key findings

Key findings included:

As in other countries, many students indicate a lack information literacy, critical thinking and independent learning capabilities and were described as passive, ‘surface’ learners. To date, strategies to strengthen these skills have had limited success, despite examples of good practice.

Challenges include:

- Pre university schooling of students (lack of resources, teacher centred)
- High student to staff numbers; limited funding, ICT and out-dated ‘northern’ information resources
- Limited research activities and publications i.e. a lack of local information resources and research culture
- Academic staff needed encouragement and training to build their research capacity, undertake research and generate local content
- A lack of integration of information literacy, critical thinking and independent learning in the curriculum at an undergraduate and postgraduate level
- Academic staff needed training in the use of alternative, more engaging, approaches to learning and assessing outcomes and impact

Students involved with ‘real world’ research, or learning encompassing ‘public’ competition, demonstrate the motivation and capacity for developing their information capabilities and conducted, rigorous independent research. ‘GOOD’ PEDAGOGY WORKED!

and lecturers DID FIND ways to foster independent learning

‘*mini research projects where they look for information to answer a question*’ PRACTICAL ACTIVITY! ACTIVE INQUIRY!

‘*real world problems’* so that they can ‘*discover an idea of how to improve things … I don’t ask them to memorise*’… SOCIALY EMBEDDED! PRACTICAL ACTIVITY! PARTICIPATING IN TRANSFORMATION!

where students took part in public competitions, such as a simulated court proceeding i.e. a ‘Moot Court’, or competed for prizes offered by commercial companies THE ROLE OF COMMUNICATION! COMMUNITY OF PRACTICE!

where staff involved students in research projects in the community, for example a village biogas project, where the students showed a high degree of motivation and were able to develop research skills and critical thinking PARTNERSHIPS! SITUATED LEARNING! BECOMING PART OF A COMMUNTY OF PRACTICE!

A fundamental connection was found between the research culture and fostering independent learners

- '*when people [lecturers] are more given to research … they also develop skills they can impart to the student*' and active research provided the opportunity to '*involve students in real world research problems*' where they actively seek information and: IMPORTANCE OF THE TEACHING, LEARNING AND RESEARCH CULTURE!
  - help students realize the relevance of subject knowledge fosters student motivation because they could see how they can have '*an impact on society*'. PARTICIPATION IN THE TRANSFORMATION OF SOCIETY!

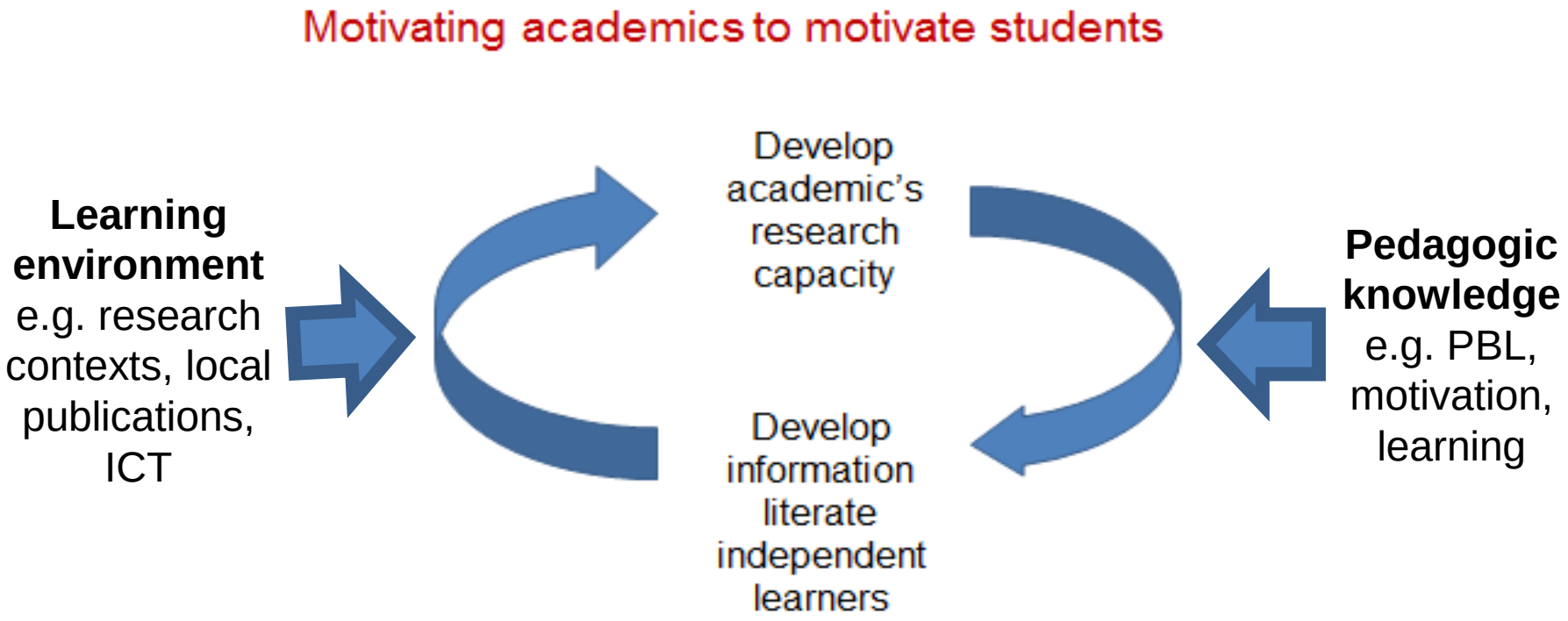
- A lack of conscious information literacy was linked to a lack of research and inhibited the transfer of these attitudes, knowledge and skills.

- A lack of research and publications led to academic insecurity making it difficult to provide effective role models for students or involve them in research.

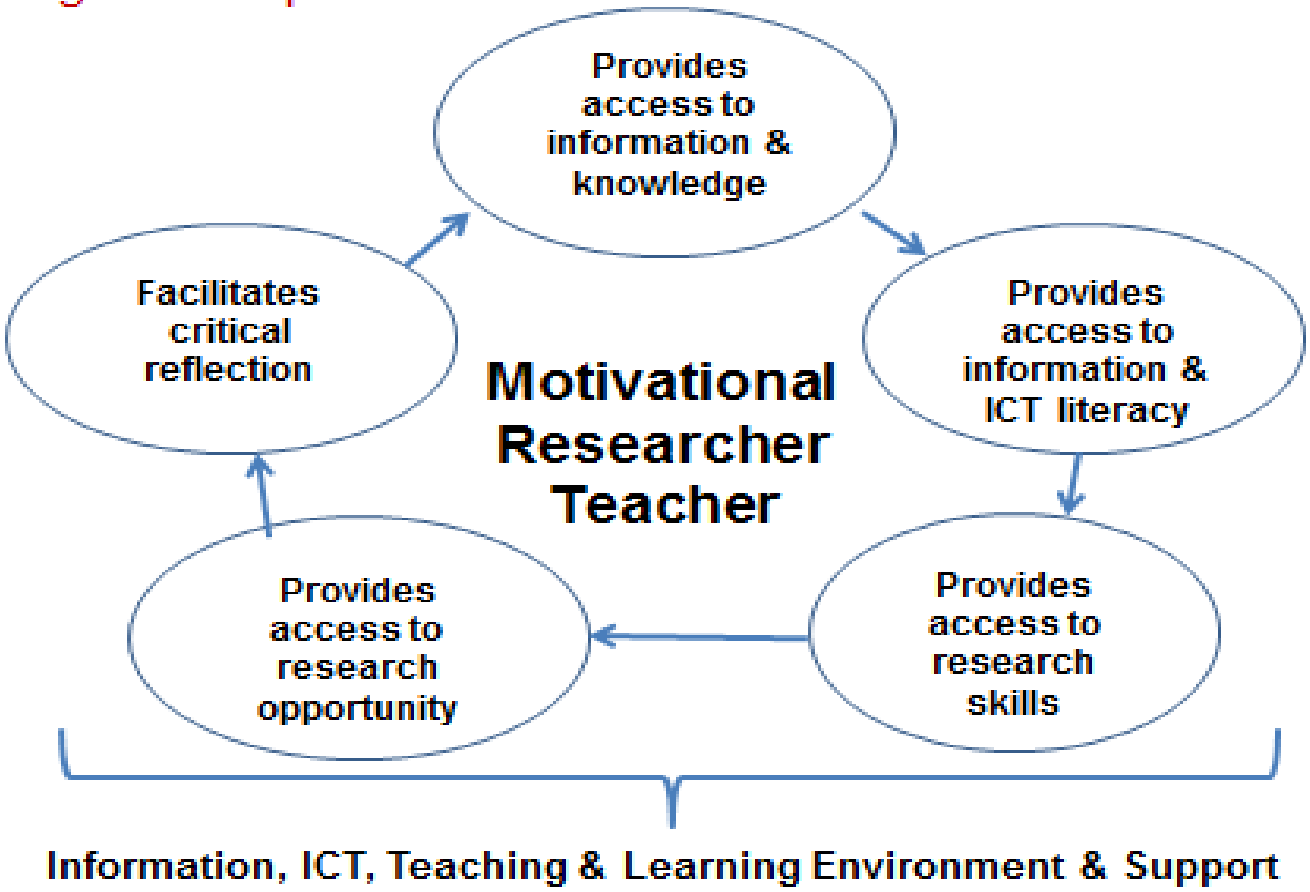
- AND led to few resources that were relevant to the local context and that could be used in teaching. SIGNIFICANCE OF THE WIDER CONTEXT!

- However: large student numbers and an inadequate number of lecturers led to a situation where '*attending to these students, teaching and marking … you do not have any time for research*'. SIGNIFICANCE OF THE WIDER CONTEXT!

ACADEMICS NEED AN INCENTIVE TO CHANGE THEIR PRACTICE AND TAKE ON NEW PRACTICES



Teaching the independent learner



TO ACHIEVE THIS THE STAFF NEED:

- **SUPPORT TO DEVELOP THEIR RESEARCH AND TEACHING CAPABILITIES (requires resources)**

TO ACHIEVE THIS THE INSTITUTION NEEDS:

- **APPROPRIATE LEARNING ENVIRONMENTS AND APPROPRIATE RESOURCES (requires resources)**

- **TO COLLECTIVELY BECOME CONSCIOUS OF THE CONNECTION BETWEEN THE RESEARCH, TEACHING AND LEARNING CULTURE AND FOSTERING INFORMATION LITERATE, CRITICAL THINKING INDEPENDENT LEARNERS (requires time)**

- **A PARTICIPATIVE APPROACH TO IDENTIFY APPROPRIATE SOLUTIONS , ACHIEVE 'BUY IN' FROM ALL STAKEHOLDERS AND THAT LEADS TO A CHANGE IN THINKING AND PRACTICE (requires time)**

The outcome of this research supports the philosophical position that: information literacy as an embedded social phenomena and not solely an objective, discrete, set of skills

- [IL] ‘reasoning as emerging through practical activity in a social environment’ (Vygotsky 1978)
- [IL] Learning is through social interaction and collaboration where learners are ‘involved in a community of practice which embodies certain beliefs and practices to be acquired’ (Lave & Wenger 1991)
- [IL] Learning is ‘the means by which men and women deal critically with reality and discover how to participate in the transformation of the world’ (Frere 1970)
- Dewey, Polanyi …

THEREFORE IT IS NECESSARY TO TAKE AN INSTITUTIONAL STRATEGY IN ADDITION TO BUILDING INDIVIDUAL CAPABILITIES (ALTHOUGH AN UNDERSTANDING OF THESE IS OF COURSE IMPORTANT

A proposed strategy for institutional change

Frere, P. (2007). *Pedagogy of the Oppressed.* New York: Continuum, 2007 (originally published 1968)
Lave, J. & Wenger, E. (1991) *Situated Learning. Legitimate peripheral participation*, Cambridge: University of Cambridge Press
Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
Reason, P. Bradbury, H. (2008). *The handbook of action research*. London: Sage

The full report on the project (funded by the Institute of Development Studies/DFID) can be found on open access at:

http://opendocs.ids.ac.uk/opendocs/bitstream/handle/123456789/2301/BuildingResearchCapacityR1.pdf

THANK YOU FOR LISTENING.
ANY QUESTIONS?