Exploring Threshold Concepts as Portals to Doctoral Student Success

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PURPOSE OF THE PİLOT STUDY

TO EXPLORE CHALLENGES OR THRESHOLD CONCEPTS THAT STUDENTS FACE İN THE DEVELOPMENT OF THE KNOWLEDGE, BEHAVİORS, AND ATTİTUDES THAT CHARACTERİZE SUCCESSFUL DOCTORAL STUDENTS İN A DİSİCIPLİNE.
BUT WHAT ARE THRESHOLD CONCEPTS?
THE STUMBLING BLOCKS FOR STUDENTS ON THE SCHOLARLY PATH
THRESHOLD CONCEPTS AND TROUBLESOME KNOWLEDGE:
LINKAGES TO WAYS OF THINKING AND PRACTICING WITHIN THE DISCIPLINES

JAN MEYER AND RAY LAND

ENHANCING TEACHING-LEARNING ENVIRONMENTS IN UNDERGRADUATE COURSES (THE ETL PROJECT, UNIVERSITY OF EDINBURGH)

OCCASIONAL REPORT 4, MAY 2003
CHARACTERİSTİCS OF A THRESHOLD CONCEPT

- TRANSFORMATİVE
- IRREVERSİBLE
- INTEGRATİVE
- BOUNDED
- TROUBLESOME
THE LİMİNAL STATE

• THE SPACE A LEARNER OCCUPIES DURING THE PROCESS OF MASTERY OF A THRESHOLD CONCEPT.

• LEARNING IS BOTH AFFECTIVE AND COGNITIVE

• LEARNING INVOLVES IDENTITY SHIFTS WHICH CAN ENTAIL TROUBLESOME, UNSETTLING JOURNEYS.
DOCTORATENESS: CONTENT AND PROCESS

TRAFFORD AND LESHEM (2009): DOCTORATENESS AS A THRESHOLD CONCEPT
  • THINKING LIKE A RESEARCHER
  • AN INDEPENDENT AND ORIGINAL CONTRIBUTION TO KNOWLEDGE AND A DEMONSTRATED UNDERSTANDING OF RESEARCH METHODOLOGY APPLICABLE TO THE CHOSEN FIELD

KİLEY (2009): IDENTIFYING THRESHOLD CONCEPTS AND PROPOSING STRATEGIES TO SUPPORT DOCTORAL CANDIDATES

HUMPHREY & SİMPSON (2012): WRITES OF PASSAGE: WRITING UP QUALITATIVE DATA AS A THRESHOLD CONCEPT IN DOCTORAL RESEARCH

WİSKER & ROBİNSON (2009): ENCOURAGING POSTGRADUATE STUDENTS OF LİTERATURE AND ART TO CROSS CONCEPTUAL THRESHOLDS
RECENT STUDIES IN THE LIBRARY LITERATURE: THRESHOLD CONCEPTS AND IL

BLACKMORE (2010): “STUDENT ENGAGEMENT WITH INFORMATION: APPLYING A THRESHOLD CONCEPT APPROACH TO INFORMATION LITERACY DEVELOPMENT”

HOFER, TOWNSEND & BRUNETTI (2012): “TROUBLESOME CONCEPTS AND INFORMATION LITERACY: INVESTIGATING THRESHOLD CONCEPTS FOR IL INSTRUCTION

TUCKER, WEEDMAN, BRUCE, & EDWARDS (2014): “LEARNING PORTALS: ANALYZING THRESHOLD CONCEPT THEORY FOR LIS EDUCATION”
THRESHOLD CONCEPT RESEARCH
 TRANSACTIONAL CURRİCULUM İNQUIRY

1. WHAT DO ACADEMİCS CONSIDER TO BE FUNDAMENTAL TO A GRASP OF THEIR SUBJECT?
2. WHAT DO STUDENTS FIND DIFFİCULT TO GRASP?
3. WHAT CURRİCULUM DESIGN INTERVENTİONS CAN SUPPORT MASTERY OF THESE DİFFİCULTİES?

THE PİLOT STUDY

TO EXPLORE FACULTY AND STUDENT PERCEPTİONS OF THE STUMBLİNG BLOCKS GRADUATE STUDENTS FACE İN THE DOCTORAL PROCESS,

AND

TO USE THESE FİNDİNGS AND FURTHER CONVERSATİONS WITH FACULTY AND STUDENTS TO CREATE A PRELİMİNARY THRESHOLD CONCEPT FRAMEWORK TO GUIDİE DEVELOPMENT OF İNSTRUCTİONAL DESIGN AND OTHER SUPPORT STRATEGİES FOR DOCTORAL STUDENTS.
METHODOLOGY

- GRADUATE FACULTY/DISSERTATION ADVISORS IN THE COLLEGE OF EDUCATION AT A PUBLIC URBAN UNIVERSITY
- SEMI-STRUCTURED INTERVIEWS
- SURVEY
SEMİ-STRUCTURED INTERVİIEWS: QUESTİONS

• WHAT CHALLENGES AND STUMBLİNG BLOCKS DO GRADUATE STUDENTS FACE İN THEİR JOURNEY AS DOCTORAL CANDİDATES?

• WHAT STRATEGİES HAVE YOU USED TO ASSİST DOCTORAL CANDİDATES İN MEETİNG THESE CHALLENGES AND STUMBLİNG BLOCKS?

• WHAT FUNDAMENTAL AND TRANSFORMATİVE CONCEPTS, BEHAVİORS AND ATTİTUDES MUST STUDENTS MASTER İN ORDER TO MOVE FORWARD AND BE SUCCESSFUL İN THE DOCTORAL PROCESS?
VITAE RESEARCHER DEVELOPMENT FRAMEWORK

**Domain A**
Knowledge and intellectual abilities
The knowledge, intellectual abilities and techniques to do research.

**Domain B**
Personal effectiveness
The personal qualities and approach to be an effective researcher.

**Domain C**
Research governance and organisation
The knowledge of the standards, requirements and professionalism to do research.

**Domain D**
Engagement, influence and impact
The knowledge and skills to work with others and ensure the wider impact of research.
THE SURVEY

• WHICH DOMAINS PRESENT THE GREATEST CHALLENGES FOR YOUR GRADUATE STUDENTS IN THEIR DEVELOPMENT AS SUCCESSFUL DOCTORAL CANDIDATES AND RESEARCHERS?

• WHICH DOMAINS ARE THE MOST IMPORTANT IN THE DEVELOPMENT OF SUCCESSFUL DOCTORAL STUDENTS?
FACULTY RANKİNG OF THE DOMAİN S

MOST CHALLENGİNG

• A2: COGNİTİVE ABİLİTİES
  • ANALYZİNG, SYNTHESİZİNG, CRİTİCAL THİNKİNG, EVALUATİNG, PROBLEM SOLVİNG

• B2: SELF-MANAGEMENT
  • PREPARATİON AND PRIORİTİZATİON, COMMITMENT TO RESEARCH, TİME MANAGEMENT, RESPONSİVENESS TO CHANGE, WORK-LİFE BALANCE

• D2: COMMUNİCATİON AND DİSSEMİNATİON
  • COMMUNİCATİON METHODS, COMMUNİCATİON MEDIA, PUBLİCATİON

MOST İMPОРTANT

• A2: COGNİTİVE ABİLİTİES

• B2: SELF-MANAGEMENT
  • C2: RESEARCH MANAGEMENT

• A1: KNOWLEDGE BASE
  • C3: PROFESSIONAL CONDUCT

• B1: PERSONAL QUALİTİES
## Faculty Ranking of the Domains

### Least Challenging

- **C3: Professional Conduct**
  - Ethical Principles, Attribution & Co-Authorship, Appropriate Practice
- **B3: Professional and Career Development**
  - Career Management, Continuing Professional Development, Networking, Reputation & Esteem
- **D1: Working with Others**
  - Collegiality, Collaboration, Working in Teams, Influence & Leadership, Equality & Diversity

### Least Important

- **C1: Finance, Funding, and Resources**
  - Income and Funding, Infrastructure and Resources
- **D3: Engagement & Impact**
  - Teaching, Public Engagement, Society & Culture, Global Citizenship
CONTINUATION OF THE PILOT STUDY

• COMPLETE INTERVIEWS AND SURVEYS WITH ALL GRADUATE EDUCATION FACULTY

• COMPARE THE CHALLENGES IDENTIFIED IN THE INTERVIEWS WITH THE CHALLENGES RANKED IN THE SURVEYS

• CONDUCT A FOLLOW-UP STUDY WITH DOCTORAL EDUCATION STUDENTS, USING THE SAME INTERVIEW AND SURVEY METHODOLOGY, IN ORDER TO COMPARE THE PERCEPTIONS OF STUDENTS AND FACULTY.

• USE FINDINGS TO DEVELOP A PRELIMINARY FRAMEWORK OF THRESHOLD CONCEPTS FOR THE DOCTORAL PROCESS
CRUCİAL CONVERSATİONS

THE DİAŁOGE AMONGST FACULTY, LİRBRARIANS, AND STUDENTS İS ESSENTİAL İN THE PROCESS OF DEVELOPİNG THE THRESHOLD CONCEPT FRAMEWORK.

THE PURPOSE OF THE THRESHOLD CONCEPTS İS TO İMPROVE THE LEARNİNG EXPERİENCE OF STUDENTS.
CROSS THE THRESHOLD TO İNSTRÜCTİONAL DESİGN AND OTHER SUPPORT STRATEGİES

İNSTRÜCTİONAL DESİGN PRİNCİPLES FOR THRESHOLD CONCEPT MASTERY
1. JEWELS İN THE CURRİCULUM
2. LİSTENİNG FOR UNDERSTANDING
3. A HOLDİNG ENVİRONMENT FOR THE TOLERATİON OF CONFUSİON
4. RECURSİVENESS AND EXCURSİVENESS

SOME OBSERVATIONS

• THE STUDY OF DIFFICULTY ULTIMATELY IS REVEALED BY THE LEARNER.
• THE PROCESS IS NOT LINEAR AND WILL BE DIFFERENT FOR EACH INDIVIDUAL.
• THE DOCTORAL JOURNAL INVOLVES BOTH COGNITIVE & AFFECTIVE DIMENSIONS
• WHEN STUDENTS ARE IN THE PROCESS OF MASTERING A THRESHOLD CONCEPT, THEY ARE IN A LIMINAL STATE THAT NEEDS TO BE RECOGNIZED.
• THRESHOLD CONCEPTS CAN PROVIDE A COMMON LANGUAGE.
• LIBRARIANS BRING THE INFORMATION LITERACY LENS TO THE LEARNING COLLABORATION.
THRESHOLD CONCEPTS: WHY THEY MATTER

• “IDENTIFICATION OF THRESHOLD CONCEPTS MATTERS BECAUSE OF THE POTENTIAL IMPACT OF THRESHOLD CONCEPTS ON THE LEARNING EXPERIENCES OF STUDENTS.”

• “ALTHOUGH RESEARCH RELATED TO THE IDENTIFICATION OF THRESHOLD CONCEPTS IS IN ITS INFANCY, WE KNOW THE FOLLOWING:
  FIRSTLY, THAT CONVERSATION AMONGST TEACHING AND LEARNING STAKEHOLDERS IS FUNDAMENTAL.
  SECONDLY, IT IS ESSENTIAL THAT THE POTENTIAL OF THRESHOLD CONCEPTS IS RECOGNIZED AND REMAINS A CLEAR FOCUS.”

INFORMATION LITERACY AS IT IS EXPERIENCED...

“WITHIN THIS FRAMEWORK, TEACHING AND LEARNING INFORMATION LITERACY WOULD STRESS NOT SKILLS ACQUISITION BUT THE GROWTH OF LEARNERS IN COMING TO UNDERSTAND AND EXPERIENCE INFORMATION LITERACY IN THESE DIFFERENT WAYS.”
THANK YOU!