The use of structural and developmental enablers at an institutional level to achieve curriculum renewal at a University of Technology

Cape Peninsula University of Technology

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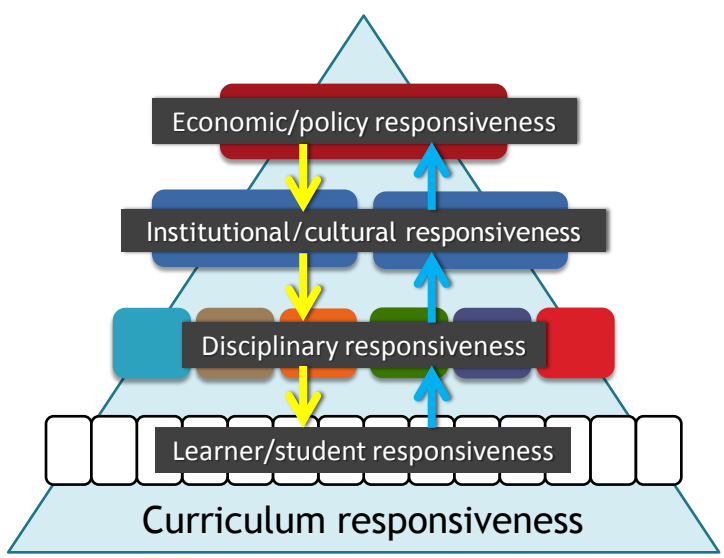
Outline of this presentation

- Introduction and background
- Stratified model of curriculum responsiveness (adapted from Moll, 2004)
- CHE Implementation of the HEQSF
- Challenges and constraints of curriculum renewal
- Curriculum 2020 project
- Methodology, data analysis and findings
- Conclusion

Introduction and background

- Curriculum touches on every aspect of an institution's core business
- External and internal change factors
- Higher Education Qualification Framework (2007) & Higher Education Qualification Sub-Framework (2013)
- Need for responsiveness, critical engagement and a scholarly approach

Stratified model of curriculum responsiveness
(Moll, 2004)



CHE Implementation of HEQ(S)F

HEQC announced the alignment and evaluation process (Category A, B and C qualifications) and the HEQ(S)F on-line system in November 2011.

The three categories were defined as follows by the Council on Higher Education:

- **Category A qualifications** are those existing qualifications that will require limited change to align to the HEQ(S)F.
- **Category B qualifications** are those existing qualifications that would require some curriculum development (or renewal) that would constitute less than a 50% change to the programme structure, outcomes and total credit value of the qualification.
- **Category C qualifications** are those that will require comprehensive curriculum renewal and development constituting a change in the programme design of the existing qualification of more than 50%.

Statistics

HEQC Category A, B or C	Nat & Higher Cert	Nat Diploma	B Tech degree	M Tech degree	D Tech degree	Others
A (2011)	2	0	0	28	17	0
A (2014)	2	0	0	16	14	2
B (2011)	3	58	0	8	1	0
B (2014)	0	44	0	15	2	0
C (2011)	4	10	66	8	1	20
C (2014)	7	26	64	13	3	23

NOTE: The revision of the 2007 version of the Higher Education Qualifications Framework, followed by the promulgated of the revised Higher Education Qualifications Sub-Framework in August 2013 during the period 2011-2014 impacted significantly on this situation.

Constraints and challenges

- Previous Technikon curriculum development/review initiatives during late 1990s
  - Implementation of outcomes-based education;
  - External pressures, e.g. employers, labour, SETAs, etc.
  - Failure of the design-down deliver-up model;
  - McKenna and Sutherland (2006:19) expressed their concern, that curricula developed by Technikons during the late 1990s, were aimed at the development of "a technical responsiveness in their students", which in many cases was "reduced to a technicist one in which students merely replicated a series of industry-related steps without the ability to engage with the concomitant knowledge related to the activity".
  - Barnett (2004) refers to this as "instrumental reasoning".

Constraints and challenges

- Displacement of disciplinary knowledge in occupationally and professionally oriented curricula
  - Wheelahan (2010:3) argues that "the paradox is that while education is supposed to prepare students for the knowledge society, the modern curriculum places less emphasis on knowledge, particularly theoretical, disciplinary knowledge".
- Lack of curriculum coherence and alignment
  - Bester and De Graaff (2012), e.g. Management Studies.
- Academics' conceptions and orientations of curriculum
  - Bester (2014), e.g. Applied Design programmes.
- Resistance to change and embedded practices interact to erode reform
  - Scott (2003:70) states that "change is not an event but … a complex and subjective learning/unlearning process for all concerned".

Curriculum 2020 project
Objectives

- Aligned to the **Vision 2020** strategic plan of the institution, CPUT launched the **Curriculum 2020 project** in January 2012.
- **Objectives of the project**
  - Respond effectively to **national imperatives**
  - Develop **responsive, relevant and engaged curricula** that will allow students to gain a contemporary command of their field of study
  - **Work collaboratively** to create significant learning experiences for CPUT students that will promote high levels of understanding, the development of advanced practice-based skills and the acquisition of appropriate graduate attributes to address the needs of a changing world
  - Provide adequate **support mechanism** and effective means of **communication** to allow staff to develop the required curriculum inquiry expertise.

Curriculum 2020 project
Key deliverables of the project

- **Develop a scholarly approach to curriculum inquiry at the institution;**
  - Establish a Curriculum Research Group and assign funding to curriculum research projects
    - Social realist paradigm (Gamble, 2006; Muller, 2009; O'Brien & Brancaleone, 2011; Wheelahan, 2010; Young, 2006)
    - Curriculum design models (Toohey, 1999; Barnett & Coate, 2005 and Dall'Alba, 2009)
    - Curriculum differentiation (Maton, 2009, 2014; Shay, 2012)
  - Develop capacity and expertise to guide the curriculum analysis, review and design process
  - Host workshops with key researchers in the field of occupational and professional curricula
  - Analyse the curriculum documentation and data of the HEQ(S)F alignment and evaluation process to inform future practice.

Curriculum 2020 project
Key deliverables of the project

- **Design responsive and relevant curricula (renewal of existing curricula)**;
  - Conduct a situation analysis
  - Engage with key stakeholders using effective means of data collection
  - Conduct international and national benchmarking of qualifications
  - Use curriculum mapping both as a process and tool to bring about alignment between learning outcomes, teaching methods, student learning activities and assessment criteria, methods and tasks
  - Develop subject guides to effectively communicate the relevant information to students to enhance student learning.

Curriculum 2020 project
Key deliverables of the project

- **Build academic staff capacity**;
  - Appoint a Curriculum Officer/T&L representative in each academic department to provide support to curriculum design teams;
  - Curriculum Officers forum - developmental enabler;
  - Adopted approach of "Spirals of change" (Robertson, Robins and Cox, (2009) and Appreciative Inquiry (Cooperrider & Srivastva, 1987).
- **Communicate effectively using ICT**;
  - Use the Senate Academic Planning committee to drive the institutional process – structural enabler;
  - Establish a central electronic repository on LMS and CPUT MIS Portal for curriculum design teams to use;
  - Develop guidelines and resource material to guide curriculum design teams.

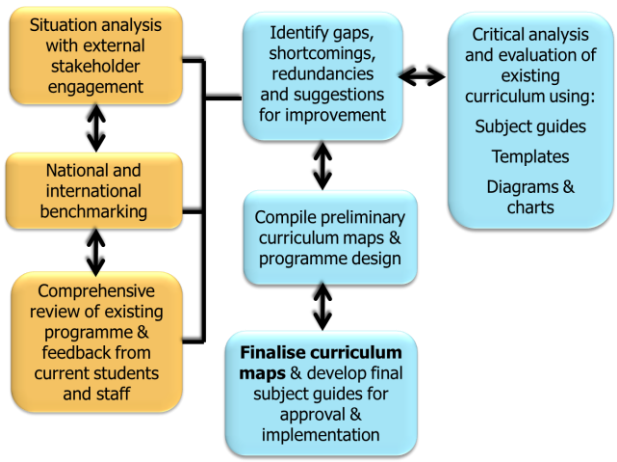
Curriculum 2020 project
Key deliverables of the project

- **Enhance the effectiveness of work-integrated learning and service learning**
  - Develop policies and guidelines to integrate different modalities of work-integrated learning in curricula
- **Embed graduate attributes in the curriculum**
  - Establish a graduate attributes task team
  - Develop a graduate attributes Charter
  - Use curriculum mapping to embed graduate attributes in the curriculum
  - Evaluate students' achievements of graduate attributes through the development of portfolios and self-maps
  - Develop employability indicators to determine effectiveness.

"Spirals of change"
(Robertson, Robins and Cox, (2009)

Tight spiral of change	Loosening the spiral of change	Galaxy-like spiral of change
The tight spiral indicates that the change starts from a central point and that the extent of change will depend on the energy and drive coming from this central point.	The loosening spiral of change indicates that although the change started from a central point the change effort is no longer dependent on the energy and drive coming from the central point.	The galaxy-like spiral of change is now impacting more significantly on others, generating energy that is self-sustaining and not only dependent on the core, yet moving in unison towards a common goal.
		

Methodology



Adapted from:
Oliver, Jones, Ferns & Tucker (2007) of Curtin University of Technology

- Action research;
- Curriculum mapping as a process and tool (used by several HEIs worldwide, e.g. Curtin UoT, Pretoria University, etc.)

Category B qualifications

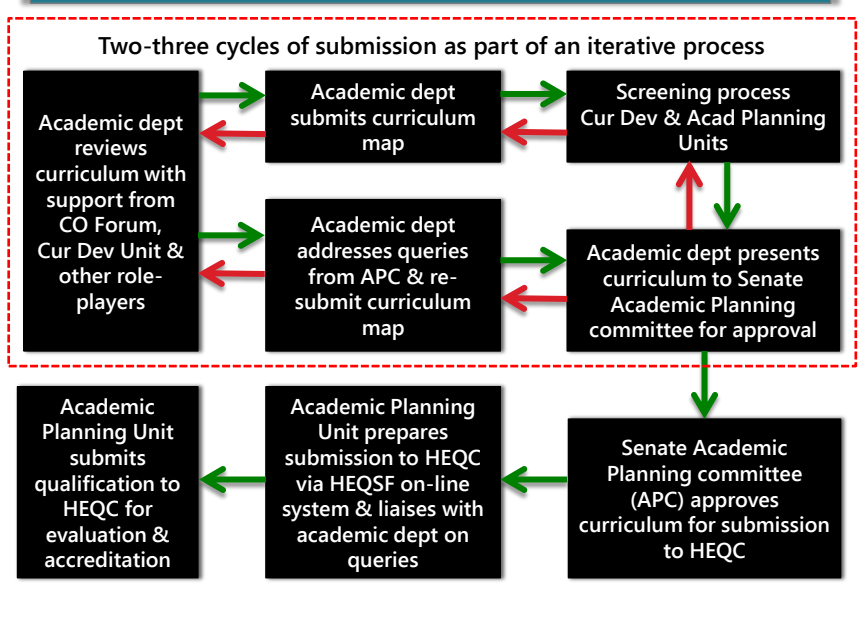
Category B qualifications per Faculty	Year	Undergraduate qualifications Nat Diplomas	Postgraduate qualifications	Sub-total
Applied Sciences	2012	14	11	25
Applied Sciences	2014	12	8	20
Business	2012	18	0	18
Business	2014	13	0	13
Education	2012	3	0	3
Education	2014	0	0	0
Engineering	2012	15	8	23
Engineering	2014	7	6	13
Health & Wellness Sciences	2012	3	0	3
Health & Wellness Sciences	2014	2	0	2
Informatics & Design	2012	12	12	24
Informatics & Design	2014	10	3	13
Total	2012	65	31	96
Total submitted to HEQC	2014	**44** (3)[i]	**17**	**61** (3)[i]

i) 3 National Diplomas were re-categorised to Category C.

Data collection

- Academic departments were required to complete the curriculum map consisting of the following sections and sub-sections for each qualification:
  - **Rationale and justification**
    - Situation analysis
    - Stakeholder engagement (including professional body requirements);
    - National & international benchmarking.
  - **Programme design & subject structure**
    - Nature and purpose of the qualification, NQF level and SAQA credits;
    - Exit level outcomes
    - Subject structure and subject descriptions & content
  - **Teaching, learning & assessment strategy**, including work-integrated learning
  - **Articulation & admission**

The use of structural enablers



Data analysis and findings

Indicators	Numbers			
Submissions during first round	17			
Conditional approvals granted by APC	17			
Submissions during second round	30			
Conditional approvals granted by APC	30			
Qualifications re-categorised	3 (more than 50% change)			
Professional body requirements	More stringent requirements			
Benchmarking	Mostly national benchmarking			
Change of academic rationale	Yes	0 (1)	No	46
Change of qualification title	Yes	13 (3)	No	31
Changes to total SAQA credits	Yes	12 (3)	No	32
Changes to Exit level outcomes	In majority of cases – more explicit			
Changes in credits assigned to WPBL	In a large number of cases			
Subject/module titles/names	In many cases with amended content			
Scope, depth & cognitive complexity	Increase in cognitive complexity			

Data analysis and findings
Purpose statement

Existing qualification

Purpose statement:

- This qualification is intended for scriptwriters, managers, editors and directors in the field of film and television.
- The qualifying learner will be competent in performing script writing and one of the following functions: editing, management or directing, in certain categories of film and television production.

HEQSF aligned qualification

Purpose statement:

- The qualification provides students with an industry entry-level proficiency in film-making, enabling them to obtain work in the field of film and television.
- The qualification provides learners with intellectual, practical and life skills to enter the film industry at a basic level, and to be able to engage the industry with a working knowledge of the various ways of thinking, practice and professionalism required for a career in film-making.
- In order to enable this, the qualification is structured to provide a scaffolded development of knowledge, skills and attributes whereby graduates will be able to begin working in a self-directed way in entry-level discipline-specific positions in the film and television industry. This equates to graduates being able to understand the industry's terms of reference, the roles played and skills exercised by the various professional disciplines, and the 'soft' skills required by film-makers.
- It also equates to graduates having a basic foundation for future entrepreneurial activity (and for further education), and to be able, after a few years of experience, to pro-actively develop new ways of working so as to grow the industry creatively and entrepreneurially.

Data analysis and findings
Exit level outcomes

Existing qualification	HEQSF aligned qualification

▪ The learner must write scripts.
▪ The learner must do editing or directing or manage productions.
	▪ The ability to demonstrate a basic understanding of the theory and practice of film-making as exercised in the local and international film, television and video industry.
	▪ The ability to generate engaging, relevant and entertaining film content in various narrative types at a basic industry-entry level standard.
	▪ The ability to effectively perform appropriate roles in the pre-production, production and post-production disciplines of the film, television and video industry to an industry entry-level standard.
	▪ To this end, graduates must demonstrate the ability, to industry-entry-level standard, to:
	  ▪ Write basic screenplays in a variety of types and genres;
	  ▪ Produce and direct short films;
	  ▪ Direct short films;
	  ▪ Successfully capture motion picture on a range of digital camera equipment and sound capture equipment;
	  ▪ Successfully set up scenes, locations and sets, and dress characters;
	  ▪ Successfully edit motion picture using a range of digital editing equipment.

Data analysis and findings
Strengthening of theoretical knowledge in curriculum

Business

- Harmonisation of key disciplinary components across the faculty & significant increase in disciplinary and theoretical knowledge in curricula;
- Examples:
  - Economics I (24 credits)
  - Law I (24 credits)

Engineering

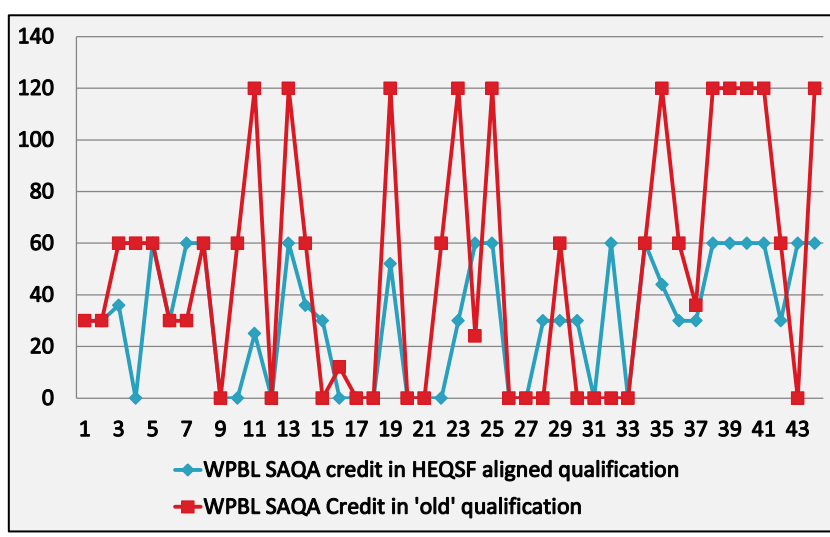
- Alignment to ECSA requirements in terms of prescribed knowledge mix consisting of:

Knowledge Profile of the Graduate	
Minimum credits in knowledge areas	
Mathematical Sciences	35
Natural Sciences	28
Engineering Sciences	126
Engineering Design	28
Computing and IT	21
Complementary Studies	14
Work Integrated Learning	30
Available for re-allocation in subject areas listed above	78
Minimum total credits	360

Data analysis and findings
Work-integrated learning

- All Diploma qualifications will include work-integrated learning in the form of one or more of the following WIL modalities as defined in the CHE WIL Good Practice Guide (August 2011):
  - Project-based learning (PJBL);
  - Problem-based learning (PBL);
  - Work-directed theoretical learning (WDTL);
  - Workplace-based learning (WPBL).
- However, there has been an increase in the use of project-based (PJBL) and problem-based learning (PBL) with changes in the SAQA credit allocation of workplace-based learning (WPBL).
- The SAQA credit value assigned to WPBL learning ranges between 30-60 SAQA credits.
- WPBL is mostly included in the third year of study with other PJBL and PBL dispersed across NQF level 5 & 6.
- WPBL has clearly defined learning outcomes and assessment criteria. Monitoring and assessment will be done by academic staff members.

Credit allocation of workplace-based learning component in Diplomas



Conclusion

- Curriculum touches on every aspect of an institution's core business and constitutes a fundamental aspect of the well-being and effectiveness of higher education (Barnett & Coate, 2005).
- Curriculum is complex business (Bitzer & Botha, 2001).
- Simply having a good idea for an educational improvement will not, of itself, make the change happen (Scott, 2003).
- Robertson et al. (2009:32) state that "to effect systematic change in higher education requires a sophisticated blend of management, collegiality and simple hard work over a prolonged period of time".

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Thank you for listening …

Any questions?

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