Carpe Diem for Educational Transformation

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Carpe Diem for Educational Transformation

Abstract for Full Paper

Carpe Diem for educational transformation

The Carpe Diem learning design methodology has been beneficially and extensively adopted in many universities throughout the world. The methodology enables fast and effective collaboration between academics, professional staff and other stakeholders for redesign of modules or new/refreshed programmes, in the service of improvements and future proofing for students learning. Our presentation briefly outlines the approach including visioning the future for graduates, authentic assessment, threshold concepts, the 5-stage model, e-tivities, storyboarding and action planning.

Some universities are now seeing Carpe Diem as a key enabler in their strategic drive to transform educational provision on a large scale in their institutions. We explore the application of the Carpe Diem learning design methodology in a major educational transformation programme at Stellenbosch University in South Africa, where the intent included innovation, creativity and addressing students’ changing needs. We describe the outcomes so far of a Carpe Diem intervention as a catalyst for Stellenbosch’s educational transformation. Our action research demonstrated that the impact of an original one-week collaborative Carpe Diem intervention, covering all 10 faculties and major degree programmes, was sustained over the following 12 months. It created acceptance and strong interest across the campus in transforming learning and proved a fitting catalyst for Stellenbosch’s programme renewal initiatives.
MISSION
Carpe Diem
for Programmes

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Carpe Diem for Programmes

- Alignment through modules
- Authentic assessment
- Graduate of the future
- Threshold concepts
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Admire, Share, Influence, Support...
2016: Toward a *strategic approach* for effective and sustainable programme renewal in a South African Research-intensive University Context
The ‘Carpe Diem’ week @ SU

Day 1 (Monday)
• Briefing of team

Day 2
• Programme level day
• 10 Faculties each with a programme(s)
• More than 100 participants

Day 3-4
• Modules days

Day 5
• Feedback, further discussion, research, evaluation, action planning
“Watershed”

• Carpe Diem confirmed as an **appropriate** methodology
• Promoted **collaboration** across various faculties, departments and disciplines
• Contributed to SU’s transformation agenda of **new approaches aligned to strategic intent**
• Increased use of **e-tivities (active learning)**
• ”**Threshold concepts**”
• ”**Begin with the end in mind**”
• Visualisations of the ”**graduates**” of the future
Recommendations

• Communicate and demonstrate **strategic intent** and senior **leadership support**
• Organise a **first big event** to promote whole-institution collaboration and engagement
• **Start at the programme level** and then proceed to module level
• Introduce **simple frameworks** and **quick prototyping**
• **Action plans** = NB
• **Capacity building, funding** for buy-out, workshops, admin and research
• Regular **engagement**
• **Action research**
Day 1: Rich diagram Future Graduate
Day 1: Programme mission

Mission: Prob & Stats 144
To empower students with confidence in using probability theory to tackle simple real world problems involving uncertainty

EARTH SCIENCES
To develop a scientifically passionate graduate with a life-long commitment to critical thinking about the interdisciplinary way in which the Earth works and to communicate this knowledge to be used for the benefit of all.

To cultivate graduates that develop innovative and sustainable solutions to society's complex engineering problems.
Day 1: Programme Storyboard
Day 1: Threshold concepts

- "Aha" threshold Concepts
- Derivatives; integrals
- Assumptions
- Structured programming/recursion
- The logical structure of math arguments
- Data Types & Structures
- Why do I need to study proof?
- One phenomenon described by different math approaches
- Optimization recognize: Restrict/Unrestric Local/Global
- Market Economy Function Optimal/Critical

Threshold Concepts
1. Geological time vs human time [Kinetics/Thermodynamics]
2. Rocks are made of minerals vs rock vs mineral
3. Plate tectonics vs rock+minerals+chemistry
4. Meaning of terminology
5. System science vs discipline: field specific

- Reinforcement between modules and build threshold concept reinforcement into syllabus
- Creative questions that  illustrate connections and linkages between fields
- Creative thinking about assessments/feedback to minimize both assessment opportunities
Programme action plans & Footprints
Days 3-4: Module planning

15 modules over 10 programmes
2017 Feedback per affiliation (N=54)

- PASS: 14
- Theology: 4
- Science: 4
- Mil Science: 3
- FMHS: 6
- Law: 2
- Engineering: 4
- Education: 4
- EMS: 3
- Arts and Social Sciences: 6
- AgriSciences: 4

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To what extent was the workshop as a whole meaningful for your involvement in programme renewal?

Not at all: 1
Indispensable: 11

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To what extent was the workshop as a whole meaningful for your involvement in module renewal?

- Not at all: 1
- Indispensable: 15
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June 2017

• **Positive aspects**
  • Flexible and enables rapid planning
  • Visual mapping method
  • Dedicated time and structured creative space
  • Bigger picture and threshold concepts
  • Facilitator
  • Collegial sharing

• **Less positive**
  • Fast pace
  • Hands-on activities
  • Sessions too long
  • Complexity of programmes
Six months after event

- Most participants were energized and greater cohesion between staff including shared agreements on the way forward
- Difficult to convince colleagues who were not part of the workshops
- Vice-Deans Forum for Teaching and Learning to discuss programme renewal initiatives
- Funding secured for buy-out, workshops, admin and research
**Twelve months after event**

**Action plan implementations:**

<table>
<thead>
<tr>
<th>Action Plan Implementation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continued formal redesign process for programme(s)...</td>
<td>76%</td>
</tr>
<tr>
<td>Reviewing the programme threshold concepts</td>
<td>52%</td>
</tr>
<tr>
<td>Adding of new learning resources or materials</td>
<td>44%</td>
</tr>
<tr>
<td>New types of assessment</td>
<td>36%</td>
</tr>
<tr>
<td>New technologies</td>
<td>32%</td>
</tr>
<tr>
<td>Working across disciplines, department or faculties</td>
<td>32%</td>
</tr>
<tr>
<td>Securing funding for evaluation</td>
<td>28%</td>
</tr>
<tr>
<td>Flipped classroom approach</td>
<td>24%</td>
</tr>
<tr>
<td>Authentic learning experiences</td>
<td>20%</td>
</tr>
<tr>
<td>E-tivities</td>
<td>12%</td>
</tr>
<tr>
<td>Other</td>
<td>12%</td>
</tr>
</tbody>
</table>
Twelve months after event

The workshop had impact on the programme renewal process in my faculty. 84%
The other programme members who did not attend the workshop were receptive to the new ideas generated at the workshop. 76%
I am more likely to take part in similar events and workshops as a result of the workshop. 52%
I found the sharing between the faculties at the workshop very beneficial. 12%

To what extent do you agree with the following statements

- Strongly agree/Agree
- Neutral
- Disagree/Strongly disagree
- Not applicable

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“Never doubt the power of a small group of people to change the world. Nothing else ever has”.

Margaret Mead

“Every society honours its live conformists and its dead troublemakers.”

Mignon McLaughlin

No budgets or humans were harmed in the making of this presentation
Resources 1

www.gillysalmon.com/carpe-diem

https://jl4d.org/index.php/ejl4d/article/view/352

Pedagogy

Threshold concepts
www.ee.ucl.ac.uk/~mflanaga/thresholds.html
Valuable recent article: Timmermans & Meyer, A framework for working with university teachers to create and embed ‘Integrated Threshold Concept Knowledge’ (ITCK) in their practice. International Journal for Academic Development. Published online: 17 Oct 2017

Rich pictures & soft systems
http://inscriptdesign.com/rich-pictures/
Resources 2: Authentic assessment

- https://courses.dcs.wisc.edu/design-teaching/PlanDesign_Fall2016/2-Online-Course-Design/3_Learning-Assessments/9_assessment_summative-authentic.html
Carpe Diem: some Publications & Papers


https://journals.gre.ac.uk/index.php/compass/article/view/718