

EXPERT SUPPORT FOR CREATING SUCCESSFUL DISTANCE AND BLENDED LEARNING PROGRAMMES

UNIVERSITY INTERNATIONAL

OF LONDON PROGRAMMES

Ken Currie, CAPDM Jonathon Thomas, UoLIA 'An Adaptive Learning Methodology and Module for Moodle'

capdm ALFA: Adaptive Learning for All

• Sub-theme

- "You can do smart things with smart content"
- What is Adaptive Learning? This is a good paper
 - From the DeVry Education Group: <u>DXV White Paper.PDF</u>
 - Has a wonderful Appendix that explains **six identifiable levels** of adaptivity in learning.

- Jose Ferreira, founder and CEO of Adaptive Learning company Knewton
 - "It is incredibly expensive to create adaptive engines. They've got to be gigantic to work well"



A Definition

- Digital learning systems are considered adaptive when they can dynamically change to better suit the learning in response to information collected during the course of learning ...
 - (U.S. Department of Education, Office of Educational Technology, 2013)
- Scenario 4 (De Vry paper)
 - A student reads a chapter online at their own pace. When ready, they take a quiz. Based on the results, the system generates an individualized learning plan to fill in gaps based on the results of the quiz ...

Types and a Goal

• Two main types of system:

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- A Platform Model, where you adopt a proprietary system
- A Publisher Model, where the content is pre-built by a provider

• Neither is particularly suitable

- The first introduces yet another system or platform to an institution, and generally a 'black box' at that
- The second pre-supposes how that content might be. Pre-built content cannot cover all possible contexts
- Better a scalable and repeatable methodology?
 - Adaptive Learning is not just a function of the system or content being used, but of the context in which it is used

Course Components

• Courses tend to include:

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- A licenced publisher Text (Pearson, Wiley, McGraw-Hill ...)
- A highly interactive Student Guide
- A Question Bank and Quizzes

- But also Learning Objectives!
 - The 'glue' that holds everything togeth
 - The basis of connected, adaptive components





Learning Objectives

- LOs are at the heart of every course
 - Standard practice, isn't it?



Every subject to adopt common structure to this level

• All content is relevant & maps to LOs

Develop outside the VLE

<?xml version="1.0" encoding="UTF-8"?>

```
<manifest xmlns="http://docbook.org/ns/docbook" version="5.1-extension capdm-1.0"
xml:id="ulip-sfm-mf" xmlns:uqf="http://www.capdm.com/uqf"
xmlns:xlink="http://www.w3.org/1999/xlink">
<info>
```

No course development done in Moodle!

```
All materials held in standards
```

o DocBook XML in particular

```
<keyword role="comp">mf</keyword>
```

</keywordset>

```
<authory
```

A Manifest (in XML) describes how the materials are

structured

o^{*} This allows the **batch** engineering of an MBZ file... hence a full

```
</ri>
```

```
No manual intervention
```

```
<topic xml:id="ulip-sfm-topic0" role="intro">
<info>
<title>Strategic Financial Management</title>
</info>
<coursematerials header="no">
<colink targetdoc="ulip-sfm-wb-complete" localinfo="intro">Welcome to Strategic Financial
The Module Study Guide</olink>
<colink targetdoc="ulip-sfm-wb-complete" localinfo="toc">Study Guide: Table of Contents</c
<forum type="news" xml:id="sfm-forum-news"/>
<forum xml:id="forum-sfm">Strategic Financial Management general chat forum</forum>
</coursematerials>
</topic>
<!-- Topic 1 -->
<topic xml:id="sfm-topic1">
<title>Topic 1: The finance function, financial objectives and financial markets</title>
```

Connecting Things Up

- All questions carry 'weightings' against one or more LO
 - And mark values too



- Content elements (chapters, sections,...) can also have similar linkages
- All described in XML



Student Driven Progress?

Every topic ends with students reporting their progress
 Quick and updatable

Home » Courses » Accounting and Finance				
<< Prev Next >> Page 28 of 28 Cor	ntents Search			
Progress log				
We recommend that you now complete your topic	c progress log. This should allow you to monitor and assess your progress	and your understanding of	the topic before you mo	ove on.
Торіс	Topic objectives	How confident are you?		
		Completely confident	Partially confident	Unsure
Topic 1: Introduction to finance: capital investment decisions	1.1 Explain the nature and importance of investment decision making.	۲	0	•
Date 03/04/2017 × 🗘 🗸	1.2 Identify and evaluate the four main investment appraisal methods found in practice.	۲	0	0
	1.3 Explain the methods used to monitor and control investment projects.	0	۲	0
			Show Topic	: Object Tracker 📝

Topic Objective Tracker

- Tutors can readily track all students
 - But an overall profile for a student can be built from the formative assessments plus their own ratings

All Topics Sing		ry of topic progress to dat	e, as indicated by the stud	lent via the "planner acti	vities" at the end of each t	opic.
ow 10 * ent	tries			Search:		
Student	▲ Obj. 1	∲ Obj. 2	Obj. 3	Obj. 4	Complete	
2 1	*	*	\$2	_	1 7 3/3	
2 * 2	☆	☆	☆	-	☆ 3/3	
C* 3	st.	*	*	*	\$? 4/4	
2 * 4	*	*	*	-	★ 3/3	
C* 5	62				☆ 0/3	
C* 6	2	2	2	-	☆ 0/3	
2 7					☆ 0/3	
C* 8	C2	2	62	-	☆ 0/3	
2* 9		2	2		☆ 0/3	
C* 10		œ	62	-	☆ 0/3	

10

capdm A (Complex) Moodle Course UNIVERSITY OF LONDON INTERNATIONAL 💄 Admin User 🔻 o Messages My courses • PROGRAMMES Home » Courses » MPAcc » Strategic Performance Management_1 Introduction Strategic Performance Management Topic 20: Identifying emerging trends and assessing their consequences 🧏 Welcome to Strategic Performance Management: The Module Study Gui Study Guide: Table of Contents 🧸 Identifying emerging trends and assessing their consequences Module News Forum 🧏 Bhimani Chapter 22: Strategic management accounting and emerging issues 🥂 Burns Chapter 22: Managing Change and Challenges for the Future Forum V Self-assessment questions Topic 1: Making sense of performance management a V Quiz Forum 🧸 Making sense of performance management and measurement Download PDF of Topic V Quiz Resources Self-assessment questions Bhimani Chapter 1: The accountant's role in the organisation Work Book Profiles Self-assessment questions Relective Activity Workbook Burns Chapter 16: Performance Measurement and Management: Ideas, Topic Object Tracker Self-assessment questions Learning Objective Profiler Progress Profile Forum Download PDF of Topic

Learning Objective Profiler

- When delivered into a VLE (e.g. Moodle) ...
 - We get a 'profile' of the assessments against the Learning Objectives

	module Strategic Financial Management for Admin Use eport is the summary of the assessment guestions mapped against the learning outco	
This progress i	eport is the summary of the assessment questions mapped against the learning outo	
	Financial strategy	Act/Poss/Tot 0.5 / 5 / 17.
	Range of investment appraisal techniques	0 / 0 / 21.2
0	Financial risk and uncertainty	0 / 0 / 8.9
0	Differing types of capital structure	0 / 0 / 14.8
	Development of dividend policy	0 / 0 / 2.2
	Drivers for mergers and acquisitions	0 / 0 / 11.5
	Drivers for financial restructuring	0 / 0 / 5.2
	Key financial risks facing a business	0 / 0 / 27.3
	Appraising alternative solutions	0 / 0 / 12.3
•	Solve complex problems	0 / 0 / 12.3
	Undertake research	0 / 0 / 11.6
0	Synthesise and use information	0 / 0 / 63.5
	Critical self-reflection	0.5 / 5 / 34.
•	Communication of complex solutions	0 / 0 / 16.2
Sele	action Quiz	Cutoff Qui

 Shows the 'balance'

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 Useful as a build check

Active Table of Contents

 Can also produce a Table of Contents

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 To all levels and active links to the content

• Like the 'Profiler' this will dynamically adapt



Students work through the quizzes, as normal

- All questions types \bigcirc supported, including 'self-mark' essays
- Students rate their \bigcirc essay answers (honestly) against a supplied model
- Simple 5 point \bigcirc scale
- No tutor needed \bigcirc

Standard Moodle Quizzes

Completed on Thursday, 9 March 2017, 2:34 PM Time taken 1 min 29 secs Grade Not yet graded

Ouestion 1 Complete

1.00

V Flag question

🔅 Edit auestion

Marked out of

a. A group of major shareholders of Zedo plc wishes to introduce a new remuneration scheme for the company's senior management. Explain why such schemes might be important to the shareholders. What factors should shareholders consider when devising such schemes?

b. Eventually a short-list of three possible schemes is agreed. All pay the same basic salary plus:

- i. A bonus based upon at least a minimum pre-tax profit being achieved.
- ii. A bonus based upon turnover growth.
- iii. A share option scheme.

Briefly discuss the advantages and disadvantages of each of these three schemes. (ACCA) Pike-Neale-Linsley. Original materials from Corporate finance and investment: decisions and strategies © copyright 2015 Pearson. All rights reserved.

Aliquam dictum nibh vitae dui tempor vestibulum. Maecenas ut magna eu dolor consectetur elementum. Duis convallis lacinia ullamcorper. Proin et orci sed arcu aliquet molestie. Praesent ipsum libero, placerat eu dui sed, egestas ultrices dui. Donec cursus neque sem, quis vehicula urna pulvinar in. Proin varius aliquet tortor quis tristique.

Look at the outline answer provided below. It contains all the main points that should be included in your own answer.

Use it to compare the quality of your answer and rate your answer on this five point scale.

- 1: My answer does not include any relevant points.
 2: My answer only includes one or two relevant issues.
 3: My answer includes about half of the relevant issues.
 4: My answer includes most of the relevant issues.
 5: My answer is as comprehensive as the outline.

Submit

a. The management of Zedo plc, under the control of the board of directors, is probably a very different group of individuals, with different requirements and aspirations, from the company's shareholders. For the majority of quoted companies, there is a clear separation of ownership and control. The owners (shareholders) must therefore seek to ensure that their agents (managers) act in their best interests.



Profile Building

As they	
do their	
quizzes	
their	
Profiles	
build up	

Your Profile	Your Badges ToC: ULIP-SFM-WB Your Profile expl	ained	
-	module SFM 170 Adapt for Ada		
This progress	report is the summary of the assessment question	ons mapped against the learning outcomes for the mod	Jule: Strategic Financial Management
			Act/Poss/Tot
	Financial strategy		3.9 / 10.3 /
	Range of investment appraisal techniques		0.4 / 0.8 / 2
	Financial risk and uncertainty		0.2 / 0.4 / 8
	Differing types of capital structure		0/0/16.8
	Development of dividend policy		0 / 0 / 2.2
	Drivers for mergers and acquisitions		0.7 / 2 / 11.
	Drivers for financial restructuring		0 / 0 / 5.2
	Key financial risks facing a business		0 / 0 / 27.3
	Appraising alternative solutions		0.9 / 2.4 / 1
	Solve complex problems		0.9 / 2.4 / 1
	Undertake research		1.1 / 2.8 / 1
	Synthesise and use information		1.1 / 2.8 / 6
	Critical self-reflection		3.7 / 9.9 / 3
	Communication of complex solutions		0.2 / 0.4 / 1

Suggestive ToC

... and their view of the ToC changes



Generate a Selective Quiz

More practice? Then target weaknesses

Generate a random quiz by LO Selection or Cutoff

Drofil	ing module SFM 170 Adapt for	le explained	
	-	uestions mapped against the learning outcomes for the	module: Strategic Financial Management
			Act/Poss/Tot
	Financial strategy		3.9 / 10.3 / 17
	Range of investment appraisal techniques		0.4 / 0.8 / 21.
	Financial risk and uncertainty		0.2 / 0.4 / 8.9
	Differing types of capital structure		0 / 0 / 16.8
	Development of dividend policy		0 / 0 / 2.2
	Drivers for mergers and acquisitions		0.7 / 2 / 11.5
	Drivers for financial restructuring		0 / 0 / 5.2
	Key financial risks facing a business		0 / 0 / 27.3
	Appraising alternative solutions		0.9 / 2.4 / 12.
	Solve complex problems		0.9 / 2.4 / 12.
	Undertake research		1.1 / 2.8 / 11.
0	Synthesise and use information		1.1 / 2.8 / 65.
	Critical self-reflection		3.7 / 9.9 / 34.
0	Communication of complex solutions		0.2 / 0.4 / 16.



Summary

- Everything driven from the richness of the content
 - All based on 'smart' content and open standards
 - Reaches Level 4 of the De Vry paper
- ... coupled with the flexibility of Moodle
 - The Learning Objective Profiler is a standard custom plugin
 - In theory this can be developed on any other platform
- The LO mappings build a form of 'connection graph'
- All 'algorithms' are in SQL no 'black box'
 - Readily changed if a 'smarter' system is wanted
 - Not Knewton-level complexity ... or cost free!



More detailed information can be found in our Look.Book

www.capdm.co.uk/ mission/moodle/

Look.Book

Examples of designs and features of CAPDM published Moodle online learning materials

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Questions?

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