Can we make MBA learning portable? Delivering an internet-based on-line Corporate Finance module: a case study

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On-line MBA objectives

Aims:

- Online: ‘portable’ MBA
- Accessible via internet : tablet, smartphone, pc
- Accessible: compulsory module
- Learning outcomes: finance in a business context
- Enjoyable

Constraints:

- Online: visual; dialogue
- Accessible: web design for learning
- Accessible: mixed entry levels
- Learning outcomes: students are outsiders to a financial world
- Enjoyable: screen fatigue

Design solution

- On-line: active, designed to maintain pace and capture interest; emphasis on student activity and feedback
- Accessible – cater for differences - activities and resources and structure of virtual learning environment (VLE)
- Learning outcomes – use web resources, a range of real world companies, provide help with maths.
- Enjoyable – visual, animated, 'snapshot', consider 'readability'

Web reading

- Eye tracking visualizations show that mostly users read web pages in an F-shaped pattern: two horizontal stripes followed by a vertical stripe

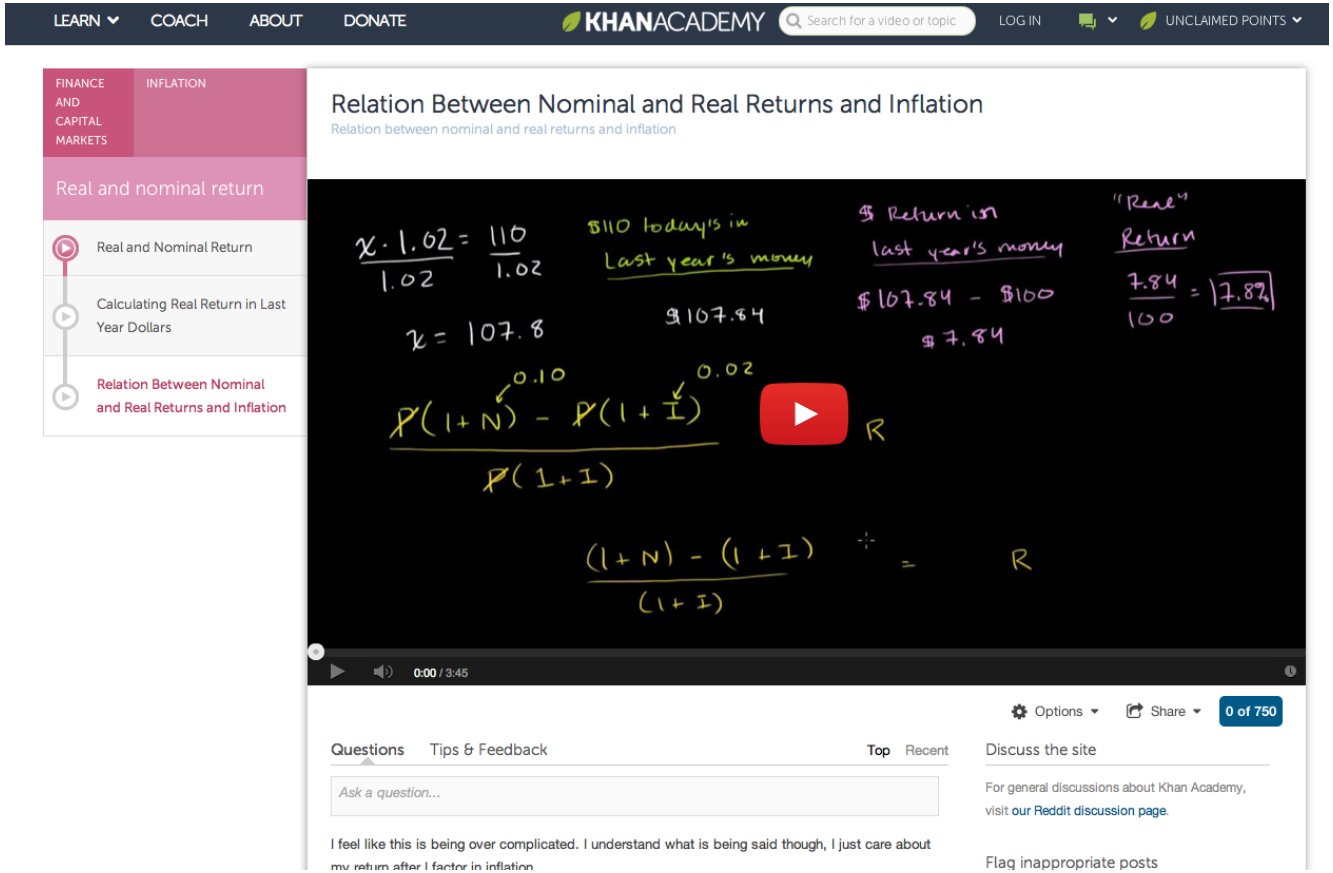
Web presentation: what doesn’t work?

- Long words
- Long paragraphs
- Long screens
- Description (because readers *can* predict)
- Pictures which dominate the screen
- Static video/ audio > 4 minutes is boring

Blended learning

- Mix of teaching involving personal interaction and ‘instruction’ delivered by technology
- Effect on higher education learning mixed (Kember et al. 2010)
- ‘Blended media’ rather than student learning (Oliver and Trigwell 2005)
- ‘Online textbook’ (Love and Fry 2006)
- Face to face instruction still desirable (Burgess 2008)
- ‘teaching presence’ important indicator of satisfaction (Arbaugh and Hwang 2006)

On-line learning



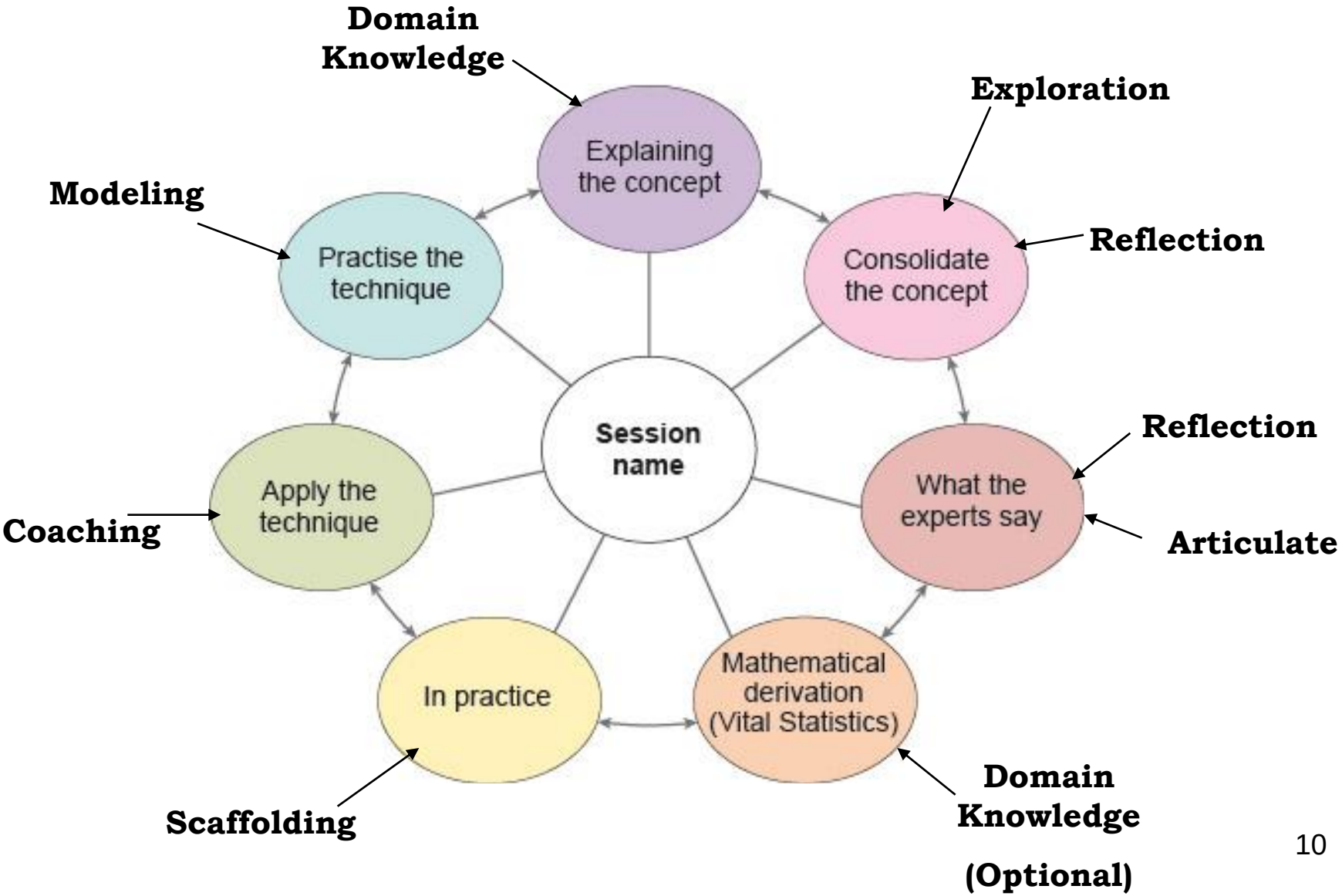
Cognitive apprenticeship model and virtual teacher

- Cognitive apprenticeship (Collins et al. 1991; Collins 2006)
- Teacher as expert, helping students to build expertise
- Situated learning (realistic tasks)
- In the classroom = ‘something teachers do’; on-line, the VLE = teacher
- Resonates with ‘constructive alignment’ Biggs and Tang (2007)

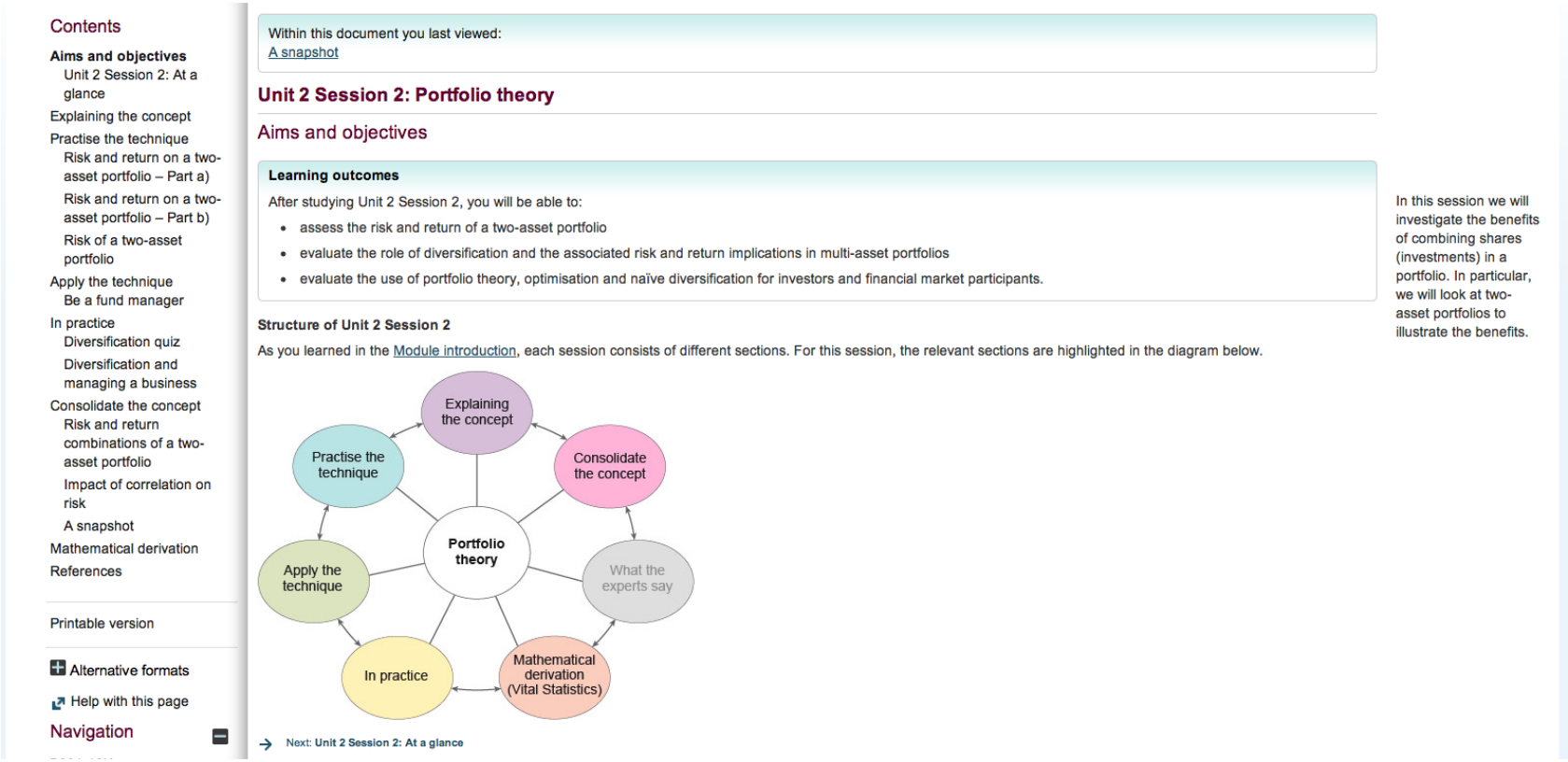
Cognitive apprenticeship framework

CF	Content	Method	Sequencing	Sociology
✓	**Domain knowledge**	**Modeling**	**Increasing complexity**	**Situated learning**
✓		**Coaching**	**Increasing diversity**	
✓		**Scaffolding**	**Global to local skills**	
✓		**Articulation**		
✓		**Reflection**		
✓		**Exploration**		
?	Heuristic strategies			Community of practice
?	Control strategies			Intrinsic motivation
?	Learning strategies			Cooperation

CF activity wheel



VLE activities



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Unit 2 Session 2: Portfolio theory

Aims and objectives

Learning outcomes

After studying Unit 2 Session 2, you will be able to:

- assess the risk and return of a two-asset portfolio
- evaluate the role of diversification and the associated risk and return implications in multi-asset portfolios
- evaluate the use of portfolio theory, optimisation and naïve diversification for investors and financial market participants.

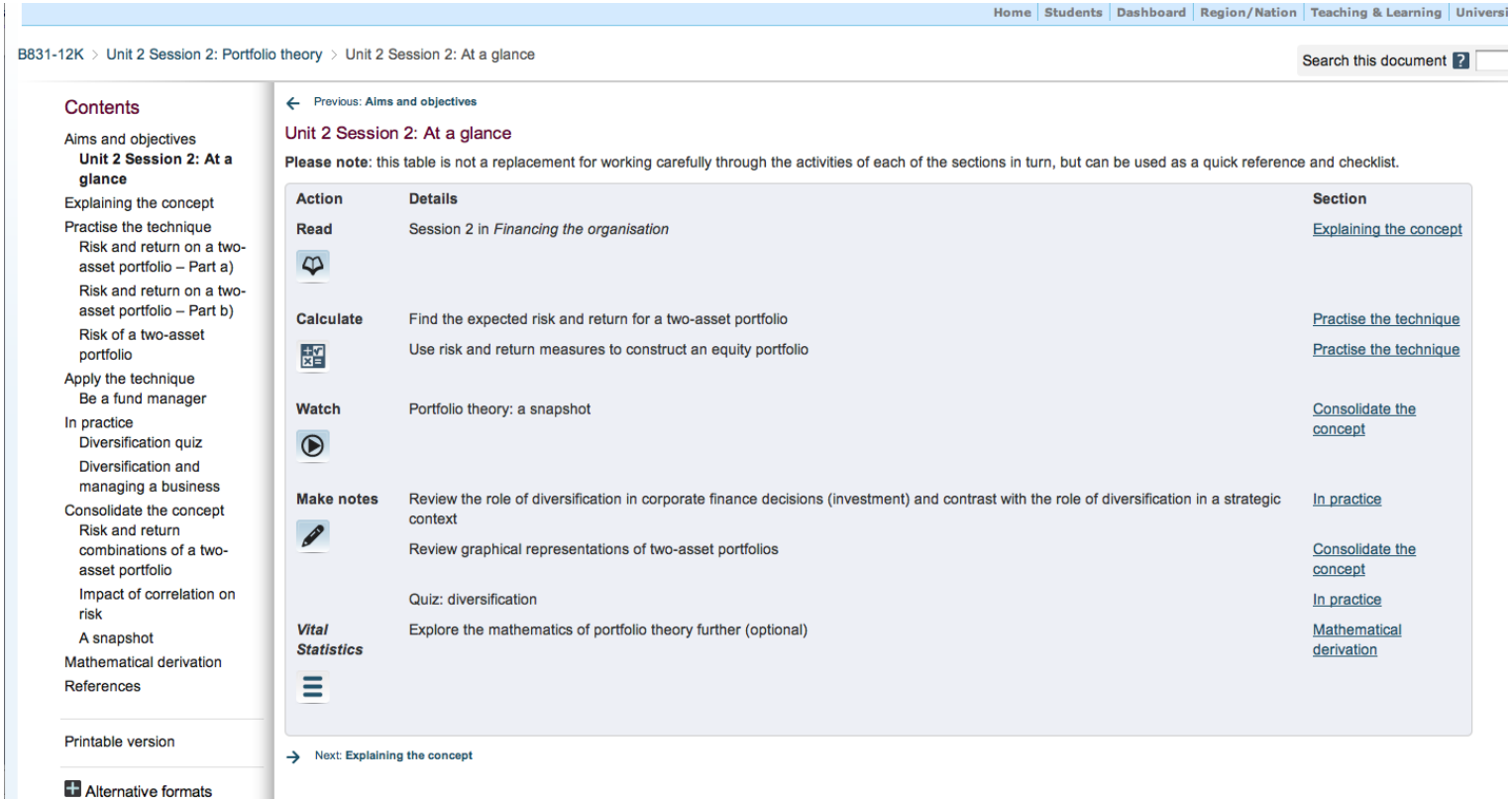
In this session we will investigate the benefits of combining shares (investments) in a portfolio. In particular, we will look at two-asset portfolios to illustrate the benefits.

Structure of Unit 2 Session 2

As you learned in the Module introduction, each session consists of different sections. For this session, the relevant sections are highlighted in the diagram below.

Next: Unit 2 Session 2: At a glance

VLE activities



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Previous: **Aims and objectives**

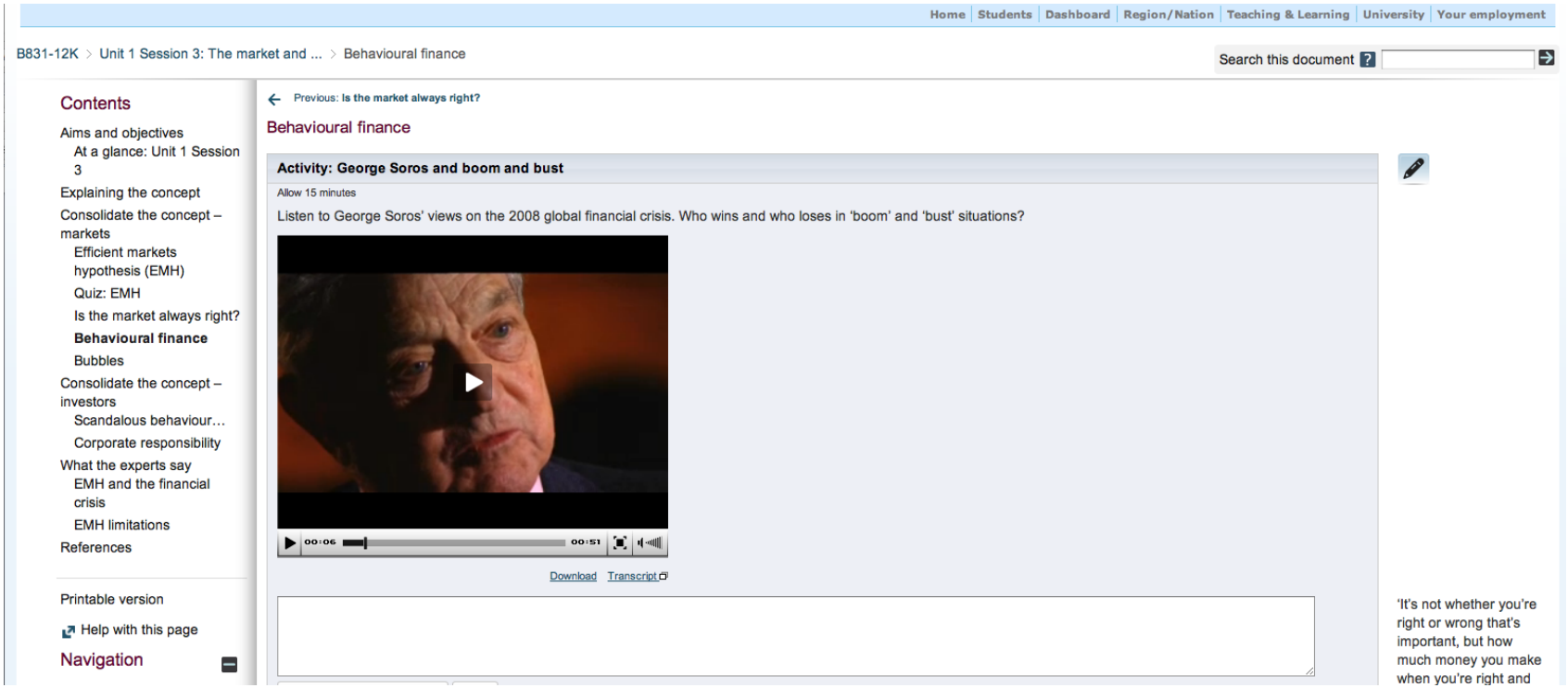
Unit 2 Session 2: At a glance

Please note: this table is not a replacement for working carefully through the activities of each of the sections in turn, but can be used as a quick reference and checklist.

Action	Details	Section
Read	Session 2 in *Financing the organisation*	Explaining the concept
Calculate	Find the expected risk and return for a two-asset portfolio	Practise the technique
	Use risk and return measures to construct an equity portfolio	Practise the technique
Watch	Portfolio theory: a snapshot	Consolidate the concept
Make notes	Review the role of diversification in corporate finance decisions (investment) and contrast with the role of diversification in a strategic context	In practice
	Review graphical representations of two-asset portfolios	Consolidate the concept
	Quiz: diversification	In practice
Vital Statistics	Explore the mathematics of portfolio theory further (optional)	Mathematical derivation

Next: **Explaining the concept**

VLE activities



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Previous: **Explaining the concept**

Consolidate the concept – markets

Efficiency in financial markets

The first activity, The Mrs O. effect illustrates the efficient markets hypothesis (EMH).

Make notes as you complete the EMH quiz. The quiz assesses the key ideas of EMH.

Use the arguments of George Soros, the multibillionaire hedge fund manager to evaluate how EMH affects you as a manager.

Professor David Yermack and the 'Mrs O. effect'

The so-called 'Mrs O. effect' was discovered by David Yermack, Professor of Finance at Stern School, New York University.

Between 2009 and 2010 Yermack tracked the effect on the share price of the retail fashion and design companies whose products were worn by Michelle Obama, First Lady in the US.

He explains how consumers respond to the news of Obama's choice of clothing and accessories by demanding the same clothes and accessories for themselves. The free publicity and subsequent increase in demand resulting from Obama appearing in public is noted by investors and seen in the increasing share price of the 'Mrs O. brands'.

Yermack attributes the share price impact to the speed by which news of Obama's fashions are communicated to the public via fashion blogs, and the ease by which fashion clothes can be bought on the internet.

This development in technology has been instrumental. Other popular fashion icons have not had the same effect on share prices as Michelle Obama has.

Read Yermack, D (2010) 'How this first lady moves markets', *Harvard Business Review*, vol. 88, no. 11, pp. 38–9. This is available in the online library.

Next: **Efficient markets hypothesis (EMH)**

VLE activities

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Participants

Previous: **Apply the technique**

Find an enterprise value

Activity: Find an enterprise value

Allow 25 minutes

Find the enterprise value of the following company using a discounted cash flow approach. Use a five-year time horizon.

Currently, annual EBITDA is €450,000 and EBITDA is forecast to grow by 5% each year (in line with revenue growth).

The company plans to invest 10% of EBITDA in non-current assets each year. 100% capital allowances are receivable on this capital expenditure. No further investment in working capital is required.

Residual value at the end of the fifth year is to be calculated using a perpetual growth model, where after-tax EBITDA, after capital expenditure, is expected to grow at 1% in perpetuity.

The company pays corporate taxation at 30% in the year in which the relevant taxable cash flows arise. For this activity, assume that taxation payable is calculated on EBITDA.

The weighted average cost of capital (WACC) of the company is 8%.

Hint: *you can calculate residual value at the end of year 5 as follows:*

$$\text{After-tax EBITDA (cash flows)} \times \frac{(1 + \text{perpetual growth rate})}{(\text{WACC} - \text{perpetual growth rate})}$$

Save and reveal feedback | Reset

You came across the perpetual growth residual value model formula earlier in this module. It is the same as the Gordon Growth model (DVM) which is used to find the price of a share.

Point to note…

One of the drawbacks in using a DCF valuation approach is the need to forecast future events. In this activity we used a forecast of future growth.

The enterprise value calculated relies on the assumptions behind the forecasts. If these are inaccurate (e.g., too pessimistic or optimistic), then the present value calculated will be understated or overstated. We look at forecasting in more detail later in this session.

Next: **Calculating residual values**

VLE activities

← Previous: **Find a net present value I**

Find a net present value II

A friend asks you to invest £5,000 today, which will give you an income of £1,000 at the end of year 1, £3,000 at the end of year 2 and £2,000 at the end of year 3.

(a) You want to find a return of 10% on any investments that you make. Is this investment worthwhile?

(b) If you require a return of 8%, does this change your decision regarding whether to make the investment?

(b) Re-calculate net present value using 8%.

Present value	0	1	2	3
	−5,000	+ 1,000	+ 3,000	+ 2,000
	×	×	×	×
	1	$\frac{1}{(1.08)^1}$	$\frac{1}{(1.08)^2}$	$\frac{1}{(1.08)^3}$
		0.926	0.857	0.794
	−5,000	926	2,571	1,588

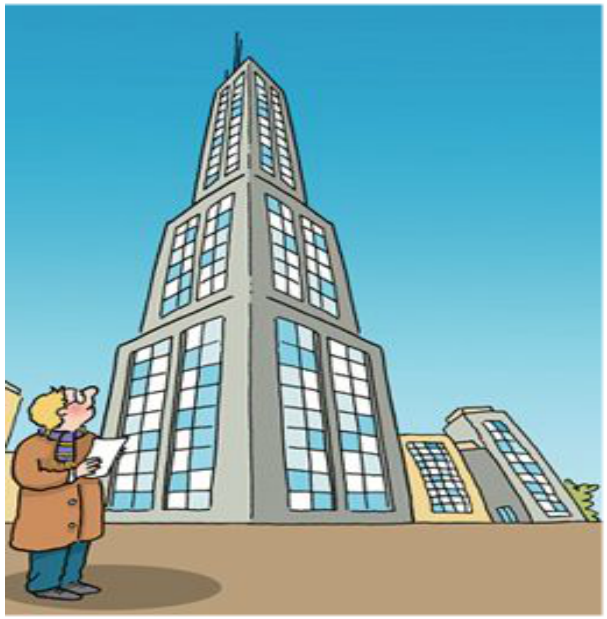
Net present value = £85

The lower the discount rate, the greater the present value

Transcript

→ Next: **Find the present value of an annuity**

VLE activities



BOOST TERMINAL VALUE

No-one can predict terminal values with any degree of accuracy beyond 2 or 3 years ahead.

So make sure you include the bigge terminal value you can get away wit particularly if the terminal value is 1 years down the line.

A bigger terminal value will increase the net present value of the project.

click to play next section

Other student support

- 8 hours face-to-face and 7 hours synchronous teaching with tutor
- Tutor group forum (asynchronous electronic conference) for tutor and students
- Student ‘café’ (electronic conference)
- All provided opportunities for articulation, reflection, exploration
- Assessment and feedback: global to local skills
- Co-operation? Community of practice?

Research question for this *initial study*

Can on-line delivery of CF provide student satisfaction?

Satisfaction: pass rates and withdrawal

Satisfaction: survey results (qualitative and quantitative)

- Did cognitive apprenticeship work as a virtual teaching model?
- How does this model improve (or not) on existing blended learning models familiar to you?

Sources of data for case study

- Student achievement (pass marks of students) evaluated the *constructive alignment* approach in designing on-line activities and assessment. Used two presentations of CF and compared with two OLDCF (predecessor module*) presentations
- Student responses, from both informal (student-organised) surveys and formal module surveys, provided evaluation of the *cognitive apprenticeship* teaching model. Informal survey had no comparative. Formal survey: used one presentation of CF compared to one OLDCF presentation
- * predecessor module was a text-based elective, included risk management

Satisfaction: pass rates

- Average pass rates on CF and OLDCF were the same for students completing

- Deferral/ withdrawal rates increased for CF

Satisfaction: Informal student café surveys

Student cafe question	Agree (Yes)	Disagree (No)	Response rate
Has the suggested study time for CF been sufficient?	14%	86%	15%
Is CF content and design appropriate to your need as MBA student?	73%	29%	5%

Satisfaction

Compared to OLDCF:

➢Positive satisfaction down :

- My study experience
- Teaching materials
- Support provided by my tutor

Satisfaction

Compared to OLDCF:

- Positive satisfaction up most:
  - Able to keep up with workload

- Positive satisfaction up :
  - Enjoyment of module

Satisfaction: further comments

Descriptive code	Comment	Responses
Study structure	Referred to studying two modules at the same time	16%
More face to face		12%
VLE helpful		8%
VLE unhelpful	Mainly associated with html/ e pub/mp3 issues	7%
Finance skills improved		7%
More study time		5%
Forum helpful	Includes collaborative work	5%
Maths. problematic		5%
Text problematic		5%

Satisfaction

- Design flaw in encouraging a study strategy of studying two ‘unrelated’ modules together:
- *“ It takes time to get into study mode at the end of the working day and switching from one to the other was difficult.”*

Satisfaction

- Workload/ managing time – an issue while studying; in hindsight, satisfaction improves.
- Linked to ‘withdrawal’ suggests ‘cognitive overload’ (Chen 2009):
- *“felt that the presentation of material was a bit confusing and fragmented, with having to go around website, other web sites” (but “surprisingly useful”)*

Satisfaction

- More face to face contact with tutor – suggests ‘teaching presence’ not fully satisfied by cognitive apprenticeship approach:
- *“more face to face as it was more challenging, especially for those without mathematical background”*

Satisfaction

- VLE supported finance skill development (enjoyment?) for those who made it to the end:

- *“I feel I have developed very practical knowledge that I can apply at work and in my life”*

Further discussion and implications

- Promoting “student-driven, self-regulated learning’ (Daspit and D’Souza 2012) is a challenge
- Absence of online ‘teaching presence’ (Arbaugh and Hwang 2006) is important
- Did cognitive apprenticeship work as a virtual teaching model? *Learning strategies require more support?*
- How does this model improve (or not) on existing blended learning models familiar to you?

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