

ACETS Exemplar 18*

Anatomy – Gas Exchange

Barbara Conway

Suffolk College

* Note: this project was unable to find suitable third-party materials and therefore did not complete an ACETS Exemplar learning activity. This report outlines their experiences and the progress they were able to make.

ACETS Exemplar 18: Baseline

Teacher/academic's name: Barbara Conway

Teacher/academic's position: Lecturer in Health and Social Care

Teacher/academic's institution: Suffolk College

Range of subjects taught: Physical Health aspects, Physiological disorders, Child development, Psychology

Contact information:

Principal interest: Anatomy (Physiology)

ACETS Officer: Tammany Allen

Date of survey: 17/12/03

Do you know how to make web pages?	not at all
Have you used the web in your teaching?	a little
Do you use anything that you would consider a "learning object" in your teaching?	a little
How would you rate your own computing skills against those of your colleagues?	average
How would you rate your own teaching skills against those of your colleagues?	good
How would you rate your own use of CAL against those of your colleagues?	poor
How much relevant staff development and training is available?	a lot (subject) none (IT)
How much relevant staff development have you actually made use of?	a little
Do you have access to support in making electronic learning materials?	none
Is this available as a free service?	n/a
Have you made use of this support service before?	n/a
Would you expect that you would need to use this service to use learning objects in your teaching?	n/a
Do you have a VLE (or equivalent) available to support your work?	Use of Intranet (problems with reliability and access)
What is the system called (eg WebCT, or equivalent local system name)?	n/a
Does it allow you to put teaching/learning materials online for your students	a little
If so, do you do this or is it done centrally for you?	I do this
How easy is it for you to get teaching materials online?	quite hard
Do you have your own computer at work	no
Do you use a computer at home for work	Yes
What level of computer access do you think your students have in the institution and at home	not very good
how much of this is internet-enabled	a little
How much teaching and learning materials are provided online for the students	none
To what degree do you expect the use of learning objects to enhance your teaching	A lot
To what degree do you expect the use of learning objects to enhance your students learning	A lot
To what degree do you expect the use of learning objects to make your work easier	A lot

ACETS Exemplar 18: Interview

Exemplifier	Barbara Conway
Exemplar description	The intention was to find up to date animation clips demonstrating a journey around parts of the body concentrating in particular on gas exchange.
Interviewer	Tammany Allen
Date and location of interview	10 th March 2005, Suffolk College
Context of use	Level 3 Health and Social Care
Was it hard to conceptualise your exemplar?	It was difficult to find any materials, specifically relevant to gas exchange, any better than our own current materials. There were interactive resources that could have been used but these are simply not practical with the College's ICT facilities since we will most likely not have a room full of computers to use and the network is not reliable enough. I really wanted a journey through the body on video or clips that could be used within the classroom so it was easy to come up with the idea but not to find the right materials.
How did you approach this?	We started with searches of various Internet sites and looking through videos available in the library or online but the resources were either the wrong topic or at the wrong level or very out dated and it was very time consuming.
Is this something the students were familiar with?	Yes, we often use videos within the classroom and we would like to use more if we could find the right ones.
How did you identify the third-party materials you needed?	We have good lesson plans but with old diagrams and photocopies. The search was really to update these resources, preferably with something in between diagrams and interactive materials so that they are practical for use in the classroom but offer more for students understanding than a static diagram. Ideally something along the lines of the BBC Horizon type resources however these seemed impossible to get hold of and we would need extra ICT support to use these materials effectively.
Did you use ACETS listed links and sources?	The ACETS site and links provided were used as a starting point but many of the sites were inappropriate and the searching became frustrating.
Did you look at/use JISC resources?	The same was true of these, looking for a particular type of resource can be quite difficult.
Did you use commercial sources?	There was a Granada video in the College library we looked at but again it was very dated. If we could have found out more about the BBC materials we would have been interested but there are cost implications looking at commercial resources and copyright or access issues which all have to be overcome.
Would it have been easy to put the exemplar together?	It would have been very easy to replace materials had appropriate ones been found to update the resources as required. Using current facilities this could have been done with a video in the classroom controlled by the lecturer however pre-cut video clips would have been more useful in some cases and multimedia assistance would have been needed for this.
Would it have been possible to get this assistance?	Possibly although there is no support structure currently in place that I am aware of for this purpose. It would probably involve making arrangements individually with other departments.

Did you engage with colleagues in your own working context as part of this process?	Steve Goodfellow is also part of the ACETS project and works within the same team so there were conversations about the work and ideas are discussed within the team generally.
Is this the way you normally work?	Yes we will always help each other where possible and share resources.
Would your colleagues have been interested in the resources that could have been produced in this exemplar?	Yes, we are all looking for ways to keep materials up to date and had it been easy to find somewhere that was a good source of replacement materials then all of the lecturers would be likely to use it. Even a few clips would have been useful as these could have been used at different levels according to the rest of the teaching constructed around them.
Would these new materials have given any pedagogical benefit?	3D representations would make it easier for students to understand and test their knowledge of these concepts. Diagrams and descriptions are less engaging and the idea of a continuous journey would be more realistic than individual stills. The ability to stop and start this journey allowing for questions and answers for self checks and assessment would be very beneficial. It is not really possible to understand diffusion without a visual representation and this would help confirm students' understanding of the theory.
How important is it for you to be able to get hold of third party materials?	It is very important that we are able to replace out dated 2D materials otherwise students interest levels will fail and this could cause problems with achievement.
What about economies of scale?	There would be an initial outlay for the BBC or other materials and possibly multimedia support skills. However these could remain unchanged for quite some time and be used in a large variety of ways. Ideally we would like a library of short clips available to compile and use. It would depend how much this would cost.
Has this changed your approach?	No, we have always searched for new materials when we have time available, we would still be very keen to find out any easily searchable resources that may be useful to us.
What are your overall feelings about the project and process?	I was disappointed not to be able to find the resources I was looking for. I appreciated the help provided in looking for these and the links and resources from ACETS and JISC were useful for starting off new ideas. It has highlighted the need for ICT facilities and how restrictive the lack of more computer access can be, this also comes from the limitations of the scheme of work in terms of interaction. I did feel the time spent searching could have been better spent elsewhere although illness also affected this progress and changed my priorities.
Would you do it again?	I would be keen to find out what can be done, rather than the reality of what happened in these circumstances and so I would do it again. I would also be interested in the Forum/repository if available.
Any other comments?	Lecturers' time is already stretched and finding these resources needs to be easier. Following link after link can be extremely frustrating. Resources also need to be relevant and reliable, which at the moment there are large amounts of information out there that do not meet these criteria.

ACETS Exemplar 18: Reflective Diary

Stage one: resource discovery

It was difficult to find resources that were more informative than those already used. Animations were very two-dimensional showing little more than a coloured diagram. Copies of BBC Horizon videos would have been ideal however it has not been at all easy to find such resources or something similar online. Searches were completed, referring to the lecturer with regard to suitability and effectiveness of the resources found. NLN materials and BBC Bitesize resources were most easily accessible and it was hard to find anything more appropriate even after many detailed searches. Video titles could be found by searches but it was very difficult to tell if these would be useful from the limited amount of information given.

Along with other anatomy exemplifiers it seems common difficulties were experienced, such as finding good free resources without copyright issues that offer any real benefits to lesson plans already in place using paper based diagrams and handouts. If new materials do not offer much more then it would seem a poor use of time searching for reusable objects.

Description of resources used and methods of implementation

The main resources to be re-used are:

1. Sections from a Granada Productions The Living Body video.
2. Images from NLN materials/BBC online material

A Granada productions video, from the college library, is being used to extract clips of animations and various elements. This may be combined with National Learning Network resources and/or Bitesize material. The intention is to edit useful clips onto a CD Rom that can be used in the classroom with a laptop and projector as an addition to current lesson plans.

Stage two: preparation

Illness and time constraints along with less up to date useful video clips available than was hoped means that this process has not gone any further.

The construction of a learning activity with these RLOs embedded would have been very straight forward with a little technical assistance although this is not readily available also.

ACETS Exemplar 18: Semi-structured Learning Design Statement

<i>Learning Design Name:</i>	Physiology of Diffusion
<i>Learning Designer(s):</i>	Barbara Conway
<i>Institution(s):</i>	Suffolk College
<i>Course Context(s):</i>	Level 3 Health and Social Care
<i>ACETS exemplar ID:</i>	18
<i>LD period:</i>	Open
<i>LD duration:</i>	1 hour

<i>In order to attain the following learning objective(s):</i>	General learning outcomes	Understand the theory of gas exchange and diffusion in the human body through 3D visualisation	
<i>With prerequisite(s):</i>	Theory of diffusion, understanding from 2D representations of chain of events.		
<i>Trigger(s):</i>	Anatomy – Physiology session		
<i>The following persons/roles:</i>	Name	Type	Description
	Subject expert	Staff	Lecturer on physiology, controls session
	Learner	Student	Participates in Q&A and lecture attendance
<i>Perform:</i>	<i>Which roles?</i>	<i>Do what?</i>	<i>How?</i>
<i>Learning activity(s):</i>	Subject expert	Control session	Start/stop videos and provide information with questions to allow reflection and assessment.
	Student	Understand diffusion	Attends lecture, watches video, participates in Q&A to check understanding
	Student	Assesses understanding	Q&A to check previous knowledge and consolidate student understanding
<i>Support activity(s):</i>	Student	Revise	Revisit prior learning
	Subject expert	Prior teaching	Previous lectures
<i>Using environment(s) or scenario(s):</i>	All	Classroom	Watch videos and participate in discussions/Q&A
<i>Using:</i>	<i>Which roles?</i>	<i>Use what?</i>	<i>To do what?</i>
<i>Tool object(s):</i>	All	Computer, data projector	Project digital video in the classroom
<i>Knowledge object(s):</i>	All	Video clips	To illustrate principles of gas exchange and diffusion
<i>Test object(s):</i>	Students	Q&A	Formative assessment portfolio.
<i>Search service(s):</i>	n/a		
<i>Communicate service(s):</i>	n/a		
<i>Announce service(s):</i>	n/a		
<i>Other elements or notes:</i>	n/a		