3. Creating effective learning resources

The third item in eVALUate asks students their level of agreement with this statement:

The learning resources in this unit help me to achieve the learning outcomes.

The learning resources could include print, multimedia and online study materials, and equipment available in lectures, laboratories, clinics or studios.

This document aims to assist teachers to ensure that learning resources facilitate students’ achievement of learning outcomes.

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1. What are learning outcomes and why are they so important?

Unit learning outcomes are what students are expected to know, understand or be able to do in order to be successful in a unit. Unit learning outcomes begin with an action verb and describe something observable and measurable. Learning outcomes are the most important section of your unit outline. They

- clearly communicate the type and depth of learning students are expected to achieve;
- provide a benchmark for prior learning assessment;
- clearly communicate graduates’ skills to prospective employers; and
- indicate to the students how they might organise their learning programme.

2. What are learning resources, and how can I improve them?

Learning resources include support materials that you might organise yourself (such as text books, handouts, readers, multimedia programmes and online study materials) as well as the ‘big ticket items’ (over which you may have less control) such as equipment available in lectures, laboratories, clinics or studios. The remainder of this document suggests ways to use all these items to maximise student learning.

2.1 Text books

Just about every unit has one or more set text books, and sometimes a list of recommended texts or readings. Most text books are quite expensive, and students buy them in the hope that they will prove useful. If you decide that a particular text book will be a useful resource for your students, check the current cost, and ensure that a good portion of the book is directly related to your unit, or to other units that your students might study. Ensure you are updating the text book choice regularly so that you are giving your students to the most relevant resource. Order the text in plenty of time through the University Bookshop on the Bentley campus. You can also remind your students that they can sell their text books through the Guild Secondhand Bookshop on the Bentley campus. The same applies for recommended texts.

Remember to check whether the Library has at least one copy of your texts and recommended readings. Requests may be made using the “Suggest a Book” link on the Library website: https://auth.lis.curtin.edu.au/cgi-bin/recom/recom.ng.pl, or by email to select@boris.curtin.edu.au.

You may also like to suggest that some items that are likely to be in high demand are placed into the Reserve collection so that access is restricted to a 2 hour loan during the day and overnight loan. Alternatively, if you know that a particular chapter from a text is all that is required, please advise staff in the Reserve section who can arrange to have it scanned and available when your students require it.

2.2 Placing materials on e-Reserve

E-Reserve is a collection of electronic documents that include articles from journals, chapters from books, or papers from conference proceedings. All you need to do is provide the citation for material which is in a Curtin library, and Reserve staff will retrieve it and create the electronic version for your reserve unit.

There are various copyright limits that need to be observed and reserve staff will contact you if there is a problem. In general you may include for each unit in e-Reserve one article from an issue of a journal or one paper from a conference whose proceedings are published regularly. You may
include one chapter or 10% of a book, or one paper from a once-only conference, provided no part of the book or proceedings has already been included in e-Reserve or on any other Curtin website.

For further information about submitting material to e-Reserve please see the following link 
http://library.curtin.edu.au/reserve/submission.html

Items in e-Reserve can be made available to your students in various ways:

- The documents are available in fulltext via the web-based library catalogue at http://opac.lis.curtin.edu.au/F
- You can link to these documents from your Learning Management System.
- When students access their unit information from their OASIS account, there is a direct link to Reserve items, for those units that have material on Reserve.

### 2.3 Compiling a Reader

Many units require students to use a broad selection of readings from a range of sources, and in this case, lecturers sometimes compile readers which are photocopied, bound, and sold on a cost recovery basis through the Curtin Bookshop. When considering revision of Curtin publications you should take into account stocks currently held by the Bookshop. New and revised Curtin publications must include a completed “Printing Instruction and Costing form”, a “Copyright Data Collection form” for each piece of copyright material, and a signed “Print and Graphic Copying Limits form”. Allow four weeks printing time to ensure that your publications are on the shelves prior to the commencement of each semester.

You may also like to consider placing your readings into the e-Reserve collection as individual items rather than preparing a print based resource.

### 2.4 Creating audiovisual materials

#### 2.4.1 Using visual aids

Visual materials can enhance what you are saying—or they can be a distraction. Avoid putting all your lecture notes onto overheads or PowerPoint slides as this often results in students copying rather than engaging with what you are saying. Instead, use a slide or overhead to pose a question, or show a diagram. Useful visual images augment rather than repeat what you are saying. These can include:

- Block, tree and flow diagrams;
- Graphs;
- Maps;
- Photos; and
- Cartoons that illustrate a point or an issue.

When you want to display main points on an overhead or PowerPoint slide there are several principles that you should follow for legibility and clarity:

- Restrict the amount of writing on the overhead or slide to about six lines
- Use keywords or phrases rather than sentences
- Use a 24 – 32 point serif font for text;
- Use a 36 – 48 point sans serif font for headings;
- In a well-lit room use dark fonts on a light background for best contrast;
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- In a dark room use light fonts on a dark background; and
- Avoid distracting background designs, animations and sounds.

If any of the material on your slides is protected by copyright then due acknowledgement must be given by referral to the source on the same slide as the material. A copyright statutory license electronic warning notice **MUST** be included in all Curtin PowerPoint Presentations containing material copied under the University’s Part VB copyright statutory license (see http://library.curtin.edu.au/copyright/checklist_ppt.html#vbnotice).

2.4.2 Creating visual aids

Graphic design, computer graphics and computer animation play a major role in materials development in print, audiovisual or computer based applications. The Learning Support Network graphic designers can create effective visuals for teaching, learning and research. Their services include:

- Web site design and construction
- Graphic design for overhead transparencies and colour 35mm slides
- Design for educational publications
- VHS cover designs, brochures, diagrams and illustrations for scientific papers and conference presentations
- Computer graphic manipulations and scanning colour images
- Computer (2D and 3D) animations and slideshows

For further information please contact Michelle Robert-Libia on 9266 2591 or email M.Robert-Libia@curtin.edu.au.

2.4.3 Creating instructional video

Instructional media can be used for role-plays and dramatisations; demonstrations and training; documentaries; observation and evaluation; slow motion and time lapse recording; and recording of lectures and presentations for conventional and Internet delivery.

Curtin’s Instructional Media Productions provides:

- Research, scripting, project management and producing services
- Professional studio and location recording
- Post-production services
- Audio recording
- DVD authoring and compression
- Digital media creation (video and audio) for delivery by CD, CD-ROM (MPEG 1, MEPEG 4, Sorenson), DVD and Internet streaming
- International video standards conversion (PAL, NTSC, SECAM, MESCAM)
- Video copying to and from Betacam SP, DVCAM, DV, S-Video and VHS
- DVD and CD-ROM duplication
- Community outreach through broadcasting of Curtin programmes in the Perth metropolitan area through the community broadcaster Access 31.

For further information please contact Zoran Gacik on 9266 2588 or email Z.Gacik@curtin.edu.au.
2.4.4 Creating online materials

Online learning means using the computer network to study a unit in whole or in part and it usually takes place through a learning management system (LMS). Curtin currently operates two learning management systems: WebCT and Blackboard (in CBS). A LMS is used for:

- controlling access to learning materials (Curtin's intellectual property)
- enabling students to communicate with other students and staff
- enabling students to use quizzes to test their understanding
- email and calendars which are confidential to the unit
- linking to e-Reserve documents

You can also use other emerging modes to enable your students to interact: these include blogs, wikis (see New technologies for engaging learners, at http://lsn.curtin.edu.au/LEARNING_matters/05october/new.html).

You can arrange to have lectures available for delivery through the Internet using iLectures as video or as audio podcasts (see http://ilectures.curtin.edu.au/).

3. For further assistance

Teaching development staff are available for help with individuals or teams.

Dr Beverley Oliver   +61 8 9266 2292   B.Oliver@curtin.edu.au
Dr Shelley Yeo   +61 8 9266 3406   S.Yeo@curtin.edu.au
Beatrice Tucker   +61 8 9266 1092   B.Tucker@curtin.edu.au

Resources to help you

A range of resources to help you to develop strategies to improve items which have been identified as needing improvement, are available from the eVALUate website, or alternatively a hard copy can be forwarded to you by Terri Crowe (x2305 or T.Crowe@curtin.edu.au). Resources are available for each of the following items of the eVALUate questionnaire.

1. Communicating clear learning outcomes
2. Creating engaging learning experiences
3. Creating effective learning resources
4. Assessing student achievement of learning outcomes
5. Providing feedback for student learning
6. Improving student perceptions of workload
7. Improving student perceptions of teaching quality