CHAPTER 6 : ENGAGING LEARNERS AT CURTIN

The Curtin Converged model of teaching and learning aims to provide innovative, richly interactive, personalised learning experiences for students regardless of where they are located and what they are studying. A key outcome of implementing the Curtin Converged model is the transformation of traditional lecture-driven and transmissive instruction towards educational approaches that reclaim class time for student-centred learning and high levels of interaction between students and teachers.

Traditional teaching models are often transmissive because they focus on communicating content to students. However, students do not learn as effectively by passively listening and taking notes to record information. They learn more effectively if they are actively engaged in interactive learning experiences. This means less sitting and listening and more doing, talking, application of tools and processes, and participation in conversational interactions. Multi-way interactions between students, their peers and the teacher, and reflecting on one’s interactions, promote learning through an evolving dialogue. High quality active interactions lead to more effective learning.

The transformed learning environment includes active and collaborative learning experiences in both face-to-face classrooms and distributed learning settings with video conferencing, but also in virtual learning environments supported by a range of real-time communication technologies. In this new model, the online learning environment is designed to engage students in self-paced and reflective learning using rich media resources and it harnesses the potential of communication technologies to sustain interactivity. Such an approach enables classroom and face-to-face time to be used creatively for active, authentic and collaborative learning and assessment tasks that support students in assimilating and synthesising new knowledge.

More effective learning occurs when the learning experiences are engaging; that is, when the students are doing rather than just listening. Increasing student engagement is likely to improve the quality of learning and reduce the challenges teachers may encounter in the learning environment.

To support learning transformation at Curtin, a number of traditional learning spaces have been refurbished for collaborative and distributed learning. Collaborative learning spaces include state-of-the-art audio visual equipment, interactive technologies for screen sharing, mobile furniture that can be rearranged for group interactions, a range of options for displaying content from multiple sources and the facilities also cater for mobile learning devices with wireless access points. Collaborative learning spaces adapted for distributed learning support student learning and collaboration with groups of students in other locations in Australia or overseas through video conferencing and web-based communication facilities.

At Curtin, regardless of their mode of study, students today engage in a range of blended learning opportunities, which may include face-to-face sessions in a classroom, distributed collaborative learning spaces or virtual classroom environments. In a transformed learning environment, learning starts before students arrive in the classroom through online interactions and activities, is highly interactive in the classroom environment, and continues beyond the classroom with ongoing activities and interactions.
The Learning Engagement Framework

University students undertake a substantial amount of self-directed activity and the effort and energy that they devote to their studies significantly influences their academic outcomes (Norton, Sonnemann, & Cherastidham, 2013). We therefore need to help students engage with learning by designing student-centred learning designs that include a range of authentic and challenging learning experiences to encourage self-directed and life-long learning.

The rubric shown in Table 3 includes five elements that characterise learning engagement. Each element extends across a dimension of three context levels, each building on the previous level. The elements in the Learning Engagement Framework are:

- **Personalisation and support** – build on prior experiences and require students to make decisions about their learning
- **Activities** – require higher order thinking, problem solving, and creativity
- **Resources** – are multimodal and directly relate to learning outcomes and activities
- **Collaboration** – anytime, anyplace, and culturally and globally diverse
- **Feedback** – timely, specific, and oriented toward performance improvement.

Table 3: Learning Engagement Framework

<table>
<thead>
<tr>
<th>Context</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Personalisation and Support</strong></td>
<td>The student’s life and work experiences are recognised and used to develop learning activities that build on their previous learning. Students make some decisions about what and how they learn. Learning activities are appropriately scaffolded for introduction to material, practising skills, performance improvement. Staff and peer support is available and being utilised by students.</td>
<td>The student’s life and work experiences are recognised and used to develop responsibility for their own learning. Students make key decisions about what and how they learn. Learning activities support progressively increasing levels of performance. Staff members act as mentors and critical peers.</td>
<td>The student’s strengths, interests and aspirations are elicited and used to personalise learning. Students are developing and demonstrating self-direction and lifelong learning skills. Students can draw on staff and industry experts for guidance.</td>
</tr>
<tr>
<td><strong>Resources</strong></td>
<td>Learning resources support and promote skill acquisition and practice needed for specified learning activities and assessments. Learning resources include a variety of audio, visual and texts and comply with universal design guidelines for learning.</td>
<td>Learning resources facilitate interaction (e.g. case studies, case examples, simulations). Learning resources support the development and practice of professional skills such as critical thinking, communication, teamwork, leadership and ethical reasoning appropriate to the discipline. Audio, visual and text-based learning resources are utilised in the unit’s learning engagement design to build on the needs and interests of the student.</td>
<td>Students are actively involved in developing artefacts and resources that support their own learning and that of others. Students engage in a wide range of multimodal learning environments.</td>
</tr>
<tr>
<td>Context</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>---------</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>Activity</strong></td>
<td><strong>Learning activities elicit performance - demonstrating learning outcomes and graduate attributes and have clear instructions and expectations for satisfactory as well as exemplary completion. Engaging activities are augmented (not dominated) by short presentations delivered by learning facilitators or students to scaffold and consolidate learning.</strong></td>
<td><strong>Activities use innovative patterns for student participation and engagement, including activities that are actually in, or simulating, the real world activity of a professional. Activities require sustained effort over time, supported by incremental tasks. Learning activities are appropriately scaffolded for introduction to material, practising skills, and performance improvement.</strong></td>
<td><strong>Tasks are based on active learning strategies, including problem-based learning and tasks with depth, complexity, and duration. Activities address one or more graduate attributes, offer multiple opportunities to practice the skill or knowledge-in-action. Activities provide means for creating knowledge as well as consolidating and revising ideas; for example, students contribute cases or create activities relevant to their real-life and workplace experiences.</strong></td>
</tr>
<tr>
<td><strong>Collaboration</strong></td>
<td><strong>Networking opportunities with both synchronous and asynchronous interactions are well designed to form a learning community. Collaboration activities reinforce learning outcomes and build workplace skills such as networking, negotiation and cooperation. Students develop an awareness of other perspectives (global, multicultural and societal).</strong></td>
<td><strong>Students work extensively on collaborative problem-solving tasks (e.g. co-construction of artefacts, reviewing and critiquing work, finding resources, prioritising and making decisions) in both face-to-face and online settings. Students have opportunities to participate in real-world professional communities related to their potential future employment. Students develop a global, multicultural and societal perspective via multiple opportunities for global communication and collaboration.</strong></td>
<td><strong>Students work in teams in a workplace setting or on authentic workplace tasks. Students proactively interact and collaborate with professionals in their field. Students successfully interact and collaborate in different cultural and societal contexts.</strong></td>
</tr>
<tr>
<td><strong>Feedback</strong></td>
<td><strong>Students are encouraged and assisted to complete self-reflection tasks and are provided with constructive feedback. Feedback is focused on helping the student improve performance and develop new knowledge. Feedback involves the individual as well as peers.</strong></td>
<td><strong>Feedback is specific to the performance required and elicited by an assessment that demonstrates knowledge-in-action as well as “knowing”. Feedback measures are situated in real-world scenarios and activities. Feedback includes individual and group reflection and public sharing.</strong></td>
<td><strong>Feedback opportunities are structured similar to or actually within real-world settings (e.g. performance reviews, peer reviews, public presentations with question and answer sessions, blind reviews, publishing opportunities. Feedback measures real-life capabilities in authentic settings. Students draw on staff and industry experts for guidance. Feedback is sought from the learning community and professionals in the field.</strong></td>
</tr>
</tbody>
</table>
Engaging Students in Face-to-Face Classes

Interaction is easiest to initiate in small groups, but in the past most university classes were large and many took place in lecture theatres with fixed, tiered seating. This made interaction and collaboration more difficult but certainly not impossible. Engaging and effective classes happen when students interact with each other and with you. Some effective techniques for making any face-to-face classes engaging for students, regardless of the venue type or size, include:

- using the latest media, research findings, professional examples and interesting scenarios to take students beyond the textbook
- utilising polling tools (e.g. Poll Everywhere, NearPod) and real-time social micro-blogging system (e.g. Hotseat), incorporating students’ mobile devices to interact and provide feedback whenever possible
- encouraging students to draw upon their previous learning and share their knowledge with their peers
- asking students to brainstorm examples of real-life situations
- having students role-play a scenario in pairs and small groups
- asking students to define or explain a concept to their neighbour or their group
- asking students to construct a mind-map showing the links between ideas, and using electronic mind-mapping tools such as GroupMap or MindJet Mindmanager
- organising a small team of students to present one side of a debate, while the rest of the class create the rebuttal as they listen
- encouraging students to write down questions about concepts that are still unclear and toss into a fishbowl for you to select from time to time, or using Hotseat for students to post questions or comments online in real-time
- giving students a quick quiz and asking them to explain their answers to their neighbour or group before supplying them with your preferred responses
- including authentic problem-solving tasks for students to work on in groups
- asking students to collaboratively create a scenario based on their recent workplace experience
- moving around the room and spending some time with each group.

Educational Technologies Supporting Learner Engagement

At Curtin, a wide range of technologies are available to support student engagement in learning and further enhance and extend their learning experiences. Technology-enhanced learning may incorporate any one or a combination of the following key elements:

- access to rich media resources via learning technologies, e.g. Blackboard learning management system, e-Reserve, iLectures, podcasts, RSS feeds
- provision of online learning experiences, interactions and assessments, e.g. blogs and wikis, Blackboard Collaborate virtual classrooms, Web 2.0 social networking and online formative and summative quizzes
- collaboration through posting and sharing of student-generated content
- feedback through individual and group reflection, and scaffolding for reflective practice, e.g. blogs, journals, and portfolios.
Blackboard – the learning management system

Blackboard is Curtin’s University-wide learning management system and provides students with access to information and each other. Use Blackboard to assist you in a number of ways.

- **Provide a virtual learning space**: supplement face-to-face teaching and expand student learning opportunities.
- **Manage your class**: organise class lists, track students’ access to materials and assignment submissions, and allow students to track their own progress. Provide generic as well as individual feedback.
- **Provide learning resources**: publish handouts, notes, iLectures, multimedia and course information. Note that simply making “notes” available online does not make those materials interactive, it simply delivers them to the students in a different mode.
- **Engage learners**: stimulate learner participation through interactivity (in simulations, forums, chat, quizzes and wikis, for example) using online technologies; this extends communication opportunities for students and teachers.

Self-marking **online quizzes** assist students to reinforce learning while assessing knowledge and understanding. Students like formative quizzes as it gives them an opportunity to check their understanding of key issues. Blackboard currently supports the use of tests, quizzes and surveys in an online environment, and Blackboard Collaborate also allows you to poll your students in a live virtual classroom.

**iLectures**

The iLecture system is available in most of Curtin’s learning spaces, enabling automatic recording of collaborative classes, lectures, or tutorials. An audio and video capture of the session or lecture can be recorded together with other visual media used in the presentation, such as PowerPoint slides or other resources. Lecture capture is designed to support the student learning experience by providing a flexible and convenient means of reviewing and reinforcing course content and engaging in online discussion tied to that content. Students can view the lecture content and materials at their own pace, pausing and rewinding as necessary. Recorded sessions or lectures particularly assist students who have to overcome language barriers, students who have timetable clashes and students with disabilities. Students can access iLecture recordings from links within their Blackboard units and can also download audio and video content to personal MP3/media player devices such as iPods, smartphones and tablets. Whilst the iLecture system cannot replicate the full interactivity of a live collaborative session or lecture, it provides students with the opportunity to listen or watch recordings at times convenient to their learning needs.

Students and staff can also engage in online discussions integrated directly into iLecture recordings to turn these recordings into interactive, flexible learning opportunities. A new feature is the ability for any automated iLecture recording venue to webcast lectures, seminars and presentations live onto the web allowing remote users to log in and watch the event live in real-time. Using the integrated Discussion Tool students and staff can engage in a back-channel asking and answering questions and discussing the lecture as it takes place.

A growing number of specialist iLecture recording venues are also available across campus, which allow students, as well as staff, to record multi-camera labs, practicals, interviews, demonstrations and other types of recordings for self-critique, group review, assessment, student portfolios, oral and practical exams. See [http://www.ilectures.curtin.edu.au/](http://www.ilectures.curtin.edu.au/).
**Narrated and streaming presentations – screencasts**

A number of personal capture tools enable lecturers to create presentation recordings (screencasts) at their computers. These presentation screencasts can be used to provide an introduction to a unit, an outline of assessment requirements, or a detailed explanation of complex issues. In addition to PowerPoint and Keynote – available to all Curtin staff – there are a number of new web-based tools, such as Prezi or Haiku Deck, which provide alternative presentation formats for staff to use as a content base for their recordings.

**Echo 360 Personal Capture**, for instance, is a program that enables staff to create their own screen recordings in conjunction with an audio or video feed. It feeds directly into iLecture, and instructions for its use can be found on the iLectures website ([http://www.ilectures.curtin.edu.au](http://www.ilectures.curtin.edu.au)). There is also a range of equivalent technologies, such as Camtasia, or Screenr ([http://www.screenr.com](http://www.screenr.com)), which may be used by teachers and students to create digital narratives.

**Blogs and journals**

Blogs began as personal journals or web logs but have evolved over the past few years to become highly sophisticated web spaces that are used not only by individuals, but groups and organisations of all sizes. Blog posts are arranged chronologically, with the most recent blog post appearing at the top of the page. In addition, blogs provide opportunities for collaboration between students, allowing them to leave comments on blog posts.

Most blogs are primarily textual but they can include images, videos and audio. Some common educational uses of blogs are:

- as a collaborative journal compiled over the study period with course-related reflections
- as a class portal where students can access supplemental materials, links, videos, podcasts, assessment tasks and other peer/teacher feedback
- as a knowledge base constructed from individual blogs interrelated with posts and comments.

**Journals** are private web spaces where students can collect experiences and post reflections on their learning process. The instructor or tutor can normally see all of the student journal entries but the students can only see their own postings. Journals can be particularly useful for students engaged in work placements or clinical practicums as a record of their experiences and their reflections on those experiences.

**Wikis**

Wikis are online collaborative writing spaces. They allow students to work together to build knowledge bases, synthesise research, collaborate to write papers and present projects. The history function of the wiki ensures the input of each author can be monitored and the overall development of the task can be assessed. Wikis can be used as planning spaces as well as summative expressions of research and learning. Additional functions such as tagging allow entries to be categorised, easily located and associated with other entries.

Some common educational uses of wikis are:

- developing and organising a glossary of key terms
- building a knowledge base around a subject
- collaborating on research or joint writing of assignments or projects.
Virtual classroom technologies

Virtual classroom technologies provide a real-time learning space giving students opportunities for immediate interaction with their lecturer and fellow learners. Activities can include introductory exercises, brainstorming, problem sharing and solving, presentation of research and projects, role plays, debates, mentoring and support. At Curtin, the main virtual classroom environment in use is Blackboard Collaborate.

Blackboard Collaborate is a live web conferencing and virtual classroom platform that allows staff and students to communicate in real-time. The main features of Blackboard Collaborate are two-way audio, multipoint video, interactive whiteboard, application sharing, web tour, polling and session recording. Blackboard Collaborate integrates within Blackboard and further information and support is available via http://otl.curtin.edu.au/teaching_learning_services/bb_collaborate.cfm, and http://otl.curtin.edu.au/teaching_learning_services/blackboard.cfm. In addition, Blackboard Collaborate can now be accessed from your mobile device from http://www.blackboard.com/Platforms/Collaborate/Products/Blackboard-Collaborate/Mobile-Collaboration.aspx.

Mobile learning

Mobile learning covers learning with portable technologies such as smart phones, tablets and netbooks, and focuses on the learning that happens when mediated through a mobile device. Students can learn from mobile technologies (podcasts, rss feeds, administrative information) and with mobile technologies (interviews, observations, student-generated video recordings, reflections, digital storytelling, development of models and designs) where the technology is employed as a cognitive tool rather than a transmissive device. These devices are capable of supplementing, and often replacing, traditional desktop and laptop computers. They have the added dimension of being enabled with locative, motion, audio-visual and spatial capabilities, along with mobile multimedia capture and creation features. Multi-touch and gestural forms of input are also possible with some devices. This combination of interest and capability is driving a significant shift towards mobile learning and most students now bring their mobile devices on campus and to class.

The Blackboard Mobile Learn application gives students and staff access to their Blackboard units on a wide variety of mobile devices. Students and staff can access documents in multiple formats, read announcements, create discussion threads, view and play media, access their grades, track progress on assigned tasks and connect with other students. Further information on download instructions and FAQs is available at http://www.elearn.curtin.edu.au/blackboard/mobilelearn.cfm. For more information about the available learning technologies and support available see http://ctl.curtin.edu.au/teaching_learning_services/learning_technologies.cfm.

Providing Engaging Learning Resources

Effective and engaging learning resources, which can be developed by teaching staff or acquired from a variety of sources, can have an important impact on student learning, including:

- creating a richer learning experience by providing access to a range of expertise, including open educational resources (OERs)
- facilitating interaction through case studies, case examples and simulations
- enabling students to work at their own pace and review information as needed
• providing students with different/alternative explanations and insights
• providing a range of materials in different media formats to suit students’ different learning styles and preferences
• supporting the development and practice of professional skills such as critical thinking, communication, teamwork, leadership and ethical reasoning appropriate to the discipline.

The Framework for Quality and Excellence in Teaching and Learning (Chapter 5) stipulates the following quality indicator – **students have equitable access to high quality learning resources and information regardless of place or mode of study.**

Learning resources include support materials such as textbooks, e-books, journal literature, e-Reserve study materials, presentation slides, notes, websites, videos, audio files, iLecture recordings, visual resources, multimedia programs and e-Reserve study materials.

**Learning materials on e-Reserve**

**e-Reserve** is the University’s solution for providing students’ required readings available and ensuring copyright compliance.

E-Reserve comprises full-text electronic documents (book chapters, journal articles, conference papers), audio and video, and web links; e-Reserve is accessible via Blackboard or the library website with a single sign-on through OASIS. The University Library will source requested items based on citation details provided by teaching staff, review copyright and licence requirements, and advise by email when processing is complete. The benefits of using e-Reserve are that items can be accessed anytime and anywhere.

Curtin policy prohibits copyright material being placed directly on Blackboard – it must be made available through e-Reserve and can then be linked via Blackboard. Information on how to do this can be found in the Teaching Support LibGuide [http://libguides.library.curtin.edu.au/teaching-support](http://libguides.library.curtin.edu.au/teaching-support).

Please contact the Library’s reserve team on 9266 7572 or email reserve@curtin.edu.au or contact your Faculty Librarian if you need assistance. Alternatively, to request the addition, removal or change to items for e-Reserve log on to the web form at [http://apps.library.curtin.edu.au/ressubmission/index.pl](http://apps.library.curtin.edu.au/ressubmission/index.pl).

**Audio and video resources**

You can diversify your learning materials by providing students with audio and video recordings. Audiovisual technologies are accessible, easy to use, and expand opportunities for stimulating and engaging your students. The University provides two large-scale audiovisual solutions for recording, storing and publishing to students: the **iLecture system** and **Echo 360 Personal Capture**, as described in the previous section.

Automatic **iLecture** devices are installed in multiple venues at Curtin, including theatres, classrooms, collaborative learning spaces and case study rooms. The iLecture system also caters for booking manual recordings and the ability to upload pre-recorded media. See [http://www.ilectures.curtin.edu.au](http://www.ilectures.curtin.edu.au).

The **Echo360 Personal Capture** software, which is available for both Mac and PC platforms, enables you to record and publish to the iLecture system wherever you and your computer may be. This is a convenient and effective way of making brief recordings such as unit introductions, case studies and overviews of topic discussions. The dual video stream allows you to record vision from a webcam as well as the content on your computer screen. See [http://www.ilectures.curtin.edu.au](http://www.ilectures.curtin.edu.au).
CTL has a small **video and editing room**, which any staff member may book and provides a range of software and hardware for creating media resources either individually or with colleagues. This studio is available to book via email and may be particularly useful for sessional lecturers or those sharing open plan offices. See [http://otl.curtin.edu.au/teaching_learning_services/video_edit_room.cfm](http://otl.curtin.edu.au/teaching_learning_services/video_edit_room.cfm).

A range of online tools is available for you and your students to record short, sharp and engaging videos but also provide opportunities for collaboration, connection and knowledge building. Free resources include; Jing, Screenr, and Voicethread. Free software tools, such as Microsoft Movie Maker, You Tube Editor and iMovie, can assist you in editing and enhancing your videos.

**Open educational resources**

You are encouraged to find ways to implement and incorporate the use of existing open educational resources (OER) within your learning resources. Use search engines that filter for OER and then embed these engaging resources into your unit along with the required attributions. You can also create your own original materials and license them as OER (search for “OER License Generator”), allowing others to reuse your materials.

If you need assistance with embedding materials, search for “How to use embed code” or “How to embed” on YouTube, or contact your Faculty Learning Engagement Team.

Sites like YouTube, Slideshare, Vimeo, Blip.tv, and others can provide alternative resources that supplement your teaching materials. Be sure to filter for OER resources. Search for “OER YouTube” for example.

For more information on OER, visit the Curtin Scoop.it page “Open Educational Resources in Higher Education” [http://www.scoop.it/t/open-educational-resources-in-higher-education](http://www.scoop.it/t/open-educational-resources-in-higher-education).

Getting started with OER:

- Identify and create appropriate digital resources that support and promote skill acquisition and practice needed for learning activities and assessments.
- Ensure all students can easily find and access learning resources.
- Search OER repositories to use existing resources and share new materials.

**Support in Developing Engaging Learning Designs**

**The Faculty Learning Engagement Teams (FLET)**

If you are keen to learn more about learning engagement and technology-enhanced teaching and learning, you can access support via your Faculty Learning Engagement Team (FLET).

The FLETs are available to provide advice on transforming learning and enhancing student engagement. This can include:

- designing learner-centred learning experiences
- establishing engaging and authentic learning experiences with opportunities for collaboration and interaction
- designing meaningful formative assessments that work well in multimodal settings – online, face to face and blended
- developing skills required for facilitating online asynchronous and synchronous learning.
You can contact your Faculty Learning Engagement Team via email:

Curtin Business School: CBSFLTHelpDesk@curtin.edu.au
Health Sciences: FLET-Health@curtin.edu.au
Humanities: FLET-HUM@curtin.edu.au
Science and Engineering: FLET-SciEng@curtin.edu.au
Centre for Aboriginal Studies: FLET-CAS@curtin.edu.au.

Curtin Learning Institute (CLI)
The Curtin Learning Institute coordinates a comprehensive program of professional learning opportunities for staff. Information about CLI programs is available at the CLI webpage (http://curtin.edu.au/cli) and CLI can be contacted at cli@curtin.edu.au. See Chapter 12 for more information about CLI.

University Library and Faculty Librarians
Faculty Librarians are available to help staff and research students identify and access relevant information to enhance student learning. You are also welcome to contact them if you need information on e-Reserve, OER, library policy or procedures, or are unsure of whom to contact within the library. See http://library.curtin.edu.au/about/organisational-structure/faculties/.

Recommended further reading:


Chapter 6 References: