# Teaching Approaches Menu, including technologies that can support them

## Independent Learning

### Reflection (including Continuing Personal Development)
- **Students reflect on practice, experience and their newly developed knowledge and skills**
- **Benefits**
  - Students have time to consider their development, and can identify areas of personal challenge
  - The ability to reflect on actions and decisions is a necessary skill in many occupation and in professional body requirements
  - Helps students to develop critical-thinking and writing skills
- **Indicative assessment artefacts**
  - Commentary
  - Critical reflection
  - Development plan
  - Portfolio
  - Reflective essay
  - Situational analysis (SWOT)
  - Verbal reflection
  - Viva
- **Technology to support and enhance**
  - Audio
  - Blogs
  - ePortfolio
  - Google Sites
  - Mind maps
  - Wikis
- **Benefit of using technology**
  - Can simplify the incorporation of artefacts in a wide range of media types
  - Easier to share and repurpose reflections
  - Allows for on-going review and tutor feedback

### Phased learning (a.k.a. ‘Mastery’)
- **Students required to fully understand a concept, skill or technique before moving on to more advanced topics**
- **Benefits**
  - Moving onto more complex topics, making learning more visible to students
  - Student is encouraged to become more autonomous
  - Develops students’ confidence in their abilities
- **Indicative assessment artefacts**
  - Lab reports
  - Observations
  - Repeatable (randomised), formative tests
- **Technology to support and enhance**
  - Blackboard tests
  - Blogs
  - ePortfolio
  - Screencasts
  - Video
  - Wikis
- **Benefit of using technology**
  - Can provide instant feedback on attainment
  - New material can be released automatically upon reaching a level

### Self-directed learning
- **Students define and investigate topics of their own choosing**
- **Benefits**
  - Can lead to high levels of active engagement as students pick topics of personal interest
  - Fosters independent learning and increases diversity of topics, resulting in greater topic coverage among a cohort
  - Encourages students to develop their critical thinking and research skills
- **Indicative assessment artefacts**
  - Case studies
  - Infographic
  - Portfolio
  - Poster
  - Presentation
  - Written report
- **Technology to support and enhance**
  - Blogs
  - ePortfolio
  - Resource lists online
  - Wikis
- **Benefit of using technology**
  - Helps students take greater ownership of content and method
  - Allows a wide variety of sources and resources to be used

## Further information, examples and case studies
- **Case studies**
  - Capturing reflective learning using digital video - Ian Jones
  - Encouraging reflective writing through blogging - Karen Vernon-Parry
  - Supporting reflective learning through private blogging - Alison Hramiak
  - Developing study skills through structured reflection - Tanya Miles-Berry
- **Related ‘Teaching Nuggets’**
  - Reflective Blogging
  - Reflective Learning handout - Jenny Moon

## Further Resources
- **Related ‘Teaching Nuggets’**
  - Mastery learning: Education Endowment Foundation toolkit - EEF (School-focused)
  - Mastery Learning [slides] - Namita S. Sahare
  - What is "Mastery Learning"? [Prezi] - Owen Hoegh

---

To view a copy of this license, visit [http://creativecommons.org/licenses/by-nc-sa/4.0/](http://creativecommons.org/licenses/by-nc-sa/4.0/).
<table>
<thead>
<tr>
<th>Approaches to teaching and learning</th>
<th>Benefits</th>
<th>Indicative assessment artefacts</th>
<th>Technology to support and enhance</th>
<th>Benefit of using technology</th>
<th>Further information, examples and case studies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Simulation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Real-world situations are investigated using tools and methods as close as possible to those in the workplace | • Facilitate and encourage practical skill and equipment proficiencies likely to be encountered in practice  
• Modelling the ‘real world’ allows better understanding of the relevant concepts  
• Allows ‘safe’ exploration of challenging or controversial topics and techniques | • Competency tests  
• Examination  
• Modelling  
• Observation  
• Reflective writing | • Blogs  
• Computer-based simulations  
• Interactive resources and equipment, e.g. monitors, IVI, Sim-man, Sim-baby  
• Video  
• Wikis | • Simulations can be quickly restarted  
• Allows simulated events to be paused and studied in detail | Further resources:  
• Using simulation in clinical education - London Deanery  
• Computer simulations can be as effective as direct observation at teaching students - Ohio State University  
• A cross-faculty simulation model for authentic learning - Diamond, S., Middleton, A. and Mather, R.  
Related ‘Teaching Nuggets’:  
• Online role-play |
| **Problem-based learning (PBL)**   |         |                               |                                 |                          |                                               |
| Students are challenged to solve real world problems, often those without a single right answer, helping develop critical thinking skills | • Encourage and enable imaginative and innovative thinking  
• Provides students with the opportunity to research and evaluate the relative merits of different approaches | • Practical examination  
• Presentation  
• Problem solving  
• Report  
• Solution | • ePortfolio  
• Presentation tools  
• Resource lists online  
• Wikis | • Can more closely model the real world by using the same (or similar) tools | Case studies:  
• Engaging students using online problem-based learning - Heidi Probst  
Further resources:  
• Problem-based learning design: a case study [video] - Bland Tomkinson, University of Manchester  
• Problem-based learning in biology with 20 case examples - Peter Ommundsen (relevant beyond Biology)  
• 7 things you should know about Challenge-Based Learning - Educause  
Related ‘Teaching Nuggets’:  
• Learner-generated content  
• Scenario-based problems |
| **Role-play**                     |         |                               |                                 |                          |                                               |
| Students work through scenarios modelled on their intended profession, often taking on a role with views unlike their own | • Mimic real-world, real-time situations, enabling immediate reflection and feedback  
• Practice complex or high order skills in a safe and supported environment  
• Illustrate and consider ethical, moral or legal questions likely to be encountered in employment | • Case studies  
• Observation  
• Reflective account | • Audio  
• Blackboard discussion forums  
• Blogs  
• Video  
• Wikis | • Makes it easier to include external participants  
• Can replicate real-world situations more closely, e.g. debating around a Blog post  
• Recorded interactions can be analysed afterwards | Case studies:  
• Using online role-play to develop ICT skills - Claire Craig  
Further resources:  
• How to teach using role-playing - Carleton College  
• Rehearsing for the real world: Case studies and role-play - Jones & Bartlett Learning  
Related ‘Teaching Nuggets’:  
• Online role-play |
<table>
<thead>
<tr>
<th>Approaches to teaching and learning</th>
<th>Benefits</th>
<th>Indicative assessment artefacts</th>
<th>Technology to support and enhance</th>
<th>Benefit of using technology</th>
<th>Further information, examples and case studies</th>
</tr>
</thead>
</table>
| Practical or project work           | • Provides opportunities for students to use theory to develop practical solutions  
• Allows students to develop examples of their work which could be included in a portfolio  
• Students are able to develop and show the depth of their knowledge and creativity | • Demonstration  
• Lab reports  
• Observation  
• Peer review  
• Portfolio  
• Presentation  
• Reflective account | • Audio  
• ePortfolio  
• Photos  
• Resource lists online  
• Video | • Students can use similar tools to those they would in the workplace  
• Easy to retain intermediate (‘draft’) versions and review changes | Case studies:  
• Developing learning literacies with digital posters - Diane Rushton  
• Engaging students beyond the classroom through sharing projects online - Nicholas Pickett  
• Promoting learner autonomy through media production and presentations - Mike Bramhall  
Further resources:  
• Students as Producers - JISC Inform 37  
• Project-based Learning Professional Development Guide - Edutopia  
Related 'Teaching Nuggets':  
• E-books  
• Learner generated content  
• Reflective blogging  
• Social media |
| Work-related learning and placements | • Helps students to develop resources for a portfolio of their work  
• Students can develop useful relationships and contacts within their industry  
• Opportunities to explore the relationship between theory and practice | • Observations  
• Reflections  
• Summative report by placement provider  
• Written report | • Blackboard discussion forums  
• Blogs  
• ePortfolio  
• Mobile apps and devices | • Reduces the sense of isolation some students feel when out of University  
• Allows easier interactions between geographically separated parties | Case studies:  
• Mobile innovation: Communicating with professional students - Alison Hramiak  
Related 'Teaching Nuggets':  
• Reflective blogging  
• Webinar |
<table>
<thead>
<tr>
<th>Approaches to teaching and learning</th>
<th>Benefits</th>
<th>Indicative assessment artefacts</th>
<th>Technology to support and enhance</th>
<th>Benefit of using technology</th>
<th>Further information, examples and case studies</th>
</tr>
</thead>
</table>
| Lectures as pre-work (a.k.a. "flipped classroom") | - Students are able to engage with materials flexibly and at their own pace  
- Students come to sessions with a required level of knowledge and understanding  
- Allows tutors to repurpose time for more engaging teaching approaches | - In-class tests  
- Peer-reviewed presentation  
- Practical activities (formative) | - Blackboard Collaborate  
- Blackboard discussion forums  
- Blackboard tests  
- Electronic Voting Systems  
- Podcasts  
- Resource lists online  
- Video | - Allows a variety of media to be used  
- Students can access the information at a time and place to suit themselves | Case studies:  
- Illustrating difficult concepts using screencasts - Cecile Morris  
Further resources:  
- Flipping the classroom - Cynthia J. Brane  
- 7 things you should know about Flipped Classrooms - Educause  
Related 'Teaching Nuggets':  
- 10 minute screencast lecture  
- Tutor concept blogging  
- Webinar |
| Resource-centred or facilitated discussion | - Encourages expression of feelings, values, opinions and beliefs, and sharing of experiences  
- Presentation skills may be practiced, building confidence and the ability for self-expression  
- Develops critical evaluation skills | - Demonstrations  
- Observation  
- Peer-review  
- Report | - Audio  
- Blackboard Collaborate  
- Blackboard Discussion forums  
- Photos  
- Resource lists online  
- Skype  
- Video | - Discussions can more easily include external parties  
- Record of discussion can be subsequently analysed | Further resources:  
- Teaching with discussions - Washington University in St. Louis  
- Learning artifacts in higher education - University of Illinois  
- Object-based learning - University College London  
Related 'Teaching Nuggets':  
- Social media  
- Webinar |
| Micro-research | - Development of presentation and/or other communication skills  
- Used for group work it can develop collaboration skills, but can also develop autonomy, independence and responsibility  
- Students can develop the learning materials for each other (potentially reusing them in subsequent cohorts) | - Infographic  
- Pecha Kucha  
- Poster  
- Presentation  
- Report  
- Student conference | - Audio  
- Presentation tools  
- Resource lists online  
- Video  
- Wikis | - Allows flexibility in presentation method and tools  
- Encourages use of different media types  
- Develops skills that will be useful in employment | Case studies:  
- Developing learning literacies with digital posters - Diane Rushton  
- Encouraging learner autonomy through small, self-selected research projects - Chris Coker & Sarah Holland  
- Promoting learner autonomy through media production and presentations - Mike Bramhall  
Further resources:  
- Self-discovery learning - E-Learning Faculty Modules  
Related 'Teaching Nuggets':  
- E-books  
- Peer feedback  
- Social media  
- Webinar |
| Teacher-directed learning or traditional lecture | - Time-efficient way of transmitting large amounts of information to large cohorts  
- Enthusiasm for the subject can be passed on by enthusiastic lecturers  
- Materials that cannot be shared with students (legally, ethically, morally, physically, etc.) can still be presented to them | - Examination  
- Report | - Electronic Voting Systems  
- Presentation tools  
- Twitter | - Increase engagement during sessions  
- Encourage interaction during lectures  
- Identify and clarify misunderstandings as they happen | Case studies:  
- Mobile innovation: Stimulating participation in lectures via mobile devices - Ben Abell  
Related 'Teaching Nuggets':  
- 10 minute screencast lecture  
- Webinar |
<table>
<thead>
<tr>
<th>Approaches to teaching and learning</th>
<th>Benefits</th>
<th>Indicative assessment artefacts</th>
<th>Technology to support and enhance</th>
<th>Benefit of using technology</th>
<th>Further information, examples and case studies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Critiquing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Case studies:</td>
</tr>
<tr>
<td>Students critique each other’s work or that of a third party and provide advice on improvements</td>
<td>Helps develop skills in critical thinking, evidencing and evaluation in respect of own and others’ work</td>
<td>Critical essay</td>
<td>Audio</td>
<td>Can use a variety of media types</td>
<td>Using peer feedback to enhance employability - Anne Nortcliffe</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Staged development of artefact with reflection on peer criticism</td>
<td>Blackboard discussion forums</td>
<td>Critiques can take place over an extended period of time</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Blogs</td>
<td>Blogs</td>
<td>Record of critique and response straightforward to obtain</td>
<td>Further resources:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Google Forms</td>
<td>Google Forms</td>
<td></td>
<td>Creating a culture of critique - David Fawcett</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Video</td>
<td>Video</td>
<td></td>
<td>Successful Art class critique - Marvin Bartel (relevant beyond Art)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Collaborative learning/learning with peers - Institute for Writing and Rhetoric, Dartmouth (covers collaborative critiquing of texts)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>The Peeragogy Handbook</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Related ‘Teaching Nuggets’:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Peer feedback</strong></td>
</tr>
<tr>
<td><strong>Debate</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Further resources:</td>
</tr>
<tr>
<td>Students are given a fairly controversial topic to research and discuss, developing their understanding</td>
<td>Develops high-level communication skills and confidence</td>
<td>Blogs or discussion forum, with position post and related discussion</td>
<td>Audio</td>
<td>Easy to obtain a record of the discussion</td>
<td>The how and why of debates in teaching and assessment - Suzy Jagger</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Blackboard</td>
<td>Enables outside parties to be a part of the debate</td>
<td>Designing online debates - University of Virginia</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Collaborate</td>
<td>Allows students to take part regardless of time and location issues</td>
<td>Intimate debate technique - National Science Teachers Association (relevant beyond Sciences)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Blackboard discussion forums</td>
<td></td>
<td>Related ‘Teaching Nuggets’:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Blogs</td>
<td>Blogs</td>
<td></td>
<td><strong>Peer-feedback</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Skype</td>
<td>Skype</td>
<td></td>
<td>Webinar</td>
</tr>
</tbody>
</table>