

Teaching Approaches Menu, including technologies that can support them

About this menu:

- This menu is designed to assist colleagues in identifying different teaching approaches and the technologies that can support and enhance those approaches. It can be used to support both individual modules and entire courses, and aligns with the University's process for the design and approval of its courses.
- The menu covers a number of approaches around the areas of independent learning (page 1), work-related learning (pages 2-3), information-focussed learning (page 4), and peer-learning (page 5). The benefits of using each approach are listed, along with indicative assessment types, technologies that can enhance them and the benefits of using that technology, as well as links to further information, specific examples and case studies. (NB. this is work-in-progress and subject to further revisions and inclusion of additional materials).
- The latest version of this document can be found at <http://go.shu.ac.uk/teachingapproachsmenu> and reuse under the terms of the Creative Commons licence shown at the bottom of the page is encouraged.

	Approaches to teaching and learning	Benefits	Indicative assessment artefacts	Technology to support and enhance	Benefit of using technology	Further information, examples and case studies
Independent Learning	<p>Reflection (including Continuing Personal Development)</p> <p><i>Students reflect on practice, experience and their newly developed knowledge and skills</i></p>	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Commentary • Critical reflection • Development plan • Portfolio • Reflective essay • Situational analysis (SWOT) • Verbal reflection • Viva 	<ul style="list-style-type: none"> • Audio • Blogs • ePortfolio • Google Sites • Mind maps • Wikis 	<ul style="list-style-type: none"> • 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 	<p>Case studies:</p> <ul style="list-style-type: none"> • 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 <p>Further Resources:</p> <ul style="list-style-type: none"> • Reflective Learning handout - Jenny Moon <p>Related 'Teaching Nuggets':</p> <ul style="list-style-type: none"> • Reflective Blogging
	<p>Phased learning (a.k.a. 'Mastery')</p> <p><i>Students required to fully understand a concept, skill or technique before moving on to more advanced topics</i></p>	<ul style="list-style-type: none"> • Moving onto more complex topics, making learning more visible to students • Student is encouraged to become more autonomous • Develops students' confidence in their abilities 	<ul style="list-style-type: none"> • Lab reports • Observations • Repeatable (randomised), formative tests 	<ul style="list-style-type: none"> • Blackboard tests • Blogs • ePortfolio • Screencasts • Video • Wikis 	<ul style="list-style-type: none"> • Can provide instant feedback on attainment • New material can be released automatically upon reaching a level 	<p>Further information:</p> <ul style="list-style-type: none"> • Mastery learning: Education Endowment Foundation toolkit - EEF (School-focused) • Mastery Learning [slides] - Namita S. Sahare • What is "Mastery Learning"? [Prezi] - Owen Hoegh <p>Related 'Teaching Nuggets':</p> <ul style="list-style-type: none"> • Formative Objective Testing
	<p>Self-directed learning</p> <p><i>Students define and investigate topics of their own choosing</i></p>	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Case studies • Infographic • Portfolio • Poster • Presentation • Written report 	<ul style="list-style-type: none"> • Blogs • ePortfolio • Resource lists online • Wikis 	<ul style="list-style-type: none"> • Helps students take greater ownership of content and method • Allows a wide variety of sources and resources to be used 	<p>Case Studies</p> <ul style="list-style-type: none"> • Developing learning literacies with digital posters - Diane Rushton • Mobile innovation: Using QR codes to support individual learning projects - John Lee • Promoting learner autonomy through media production and presentations - Mike Bramhall <p>Related 'Teaching Nuggets':</p> <ul style="list-style-type: none"> • E-books • Learner-generated content • Reflective blogging



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Work-related Learning	<p>Simulation</p> <p><i>Real-world situations are investigated using tools and methods as close as possible to those in the workplace</i></p>	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Competency tests Examination Modelling Observation Reflective writing 	<ul style="list-style-type: none"> Blogs Computer-based simulations Interactive resources and equipment, e.g. monitors, IVI, Sim-man, Sim-baby Video Wikis 	<ul style="list-style-type: none"> Simulations can be quickly restarted Allows simulated events to be paused and studied in detail 	<p>Further resources:</p> <ul style="list-style-type: none"> 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. <p>Related 'Teaching Nuggets':</p> <ul style="list-style-type: none"> Online role-play
	<p>Problem-based learning (PBL)</p> <p><i>Students are challenged to solve real world problems, often those without a single right answer, helping develop critical thinking skills</i></p>	<ul style="list-style-type: none"> Encourage and enable imaginative and innovative thinking Provides students with the opportunity to research and evaluate the relative merits of different approaches 	<ul style="list-style-type: none"> Practical examination Presentation Problem solving Report Solution 	<ul style="list-style-type: none"> ePortfolio Presentation tools Resource lists online Wikis 	<ul style="list-style-type: none"> Can more closely model the real world by using the same (or similar) tools 	<p>Case studies:</p> <ul style="list-style-type: none"> Engaging students using online problem-based learning - Heidi Probst <p>Further resources:</p> <ul style="list-style-type: none"> 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 <p>Related 'Teaching Nuggets':</p> <ul style="list-style-type: none"> Learner-generated content Scenario-based problems
	<p>Role-play</p> <p><i>Students work through scenarios modelled on their intended profession, often taking on a role with views unlike their own</i></p>	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Case studies Observation Reflective account 	<ul style="list-style-type: none"> Audio Blackboard discussion forums Blogs Video Wikis 	<ul style="list-style-type: none"> 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 	<p>Case studies:</p> <ul style="list-style-type: none"> Using online role-play to develop ICT skills - Claire Craig <p>Further resources:</p> <ul style="list-style-type: none"> How to teach using role-playing - Carleton College Rehearsing for the real world: Case studies and role-play - Jones & Bartlett Learning <p>Related 'Teaching Nuggets':</p> <ul style="list-style-type: none"> Online role-play



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Work-related Learning (continued)	Practical or project work <i>Students undertake a piece of work to help integrate their learning and make it concrete</i>	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Demonstration Lab reports Observation Peer review Portfolio Presentation Reflective account 	<ul style="list-style-type: none"> Audio ePortfolio Photos Resource lists online Video 	<ul style="list-style-type: none"> Students can use similar tools to those they would in the workplace Easy to retain intermediate ('draft') versions and review changes 	Case studies: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> Students as Producers - JISC Inform 37 Project-based Learning Professional Development Guide - Edutopia Related 'Teaching Nuggets': <ul style="list-style-type: none"> E-books Learner generated content Reflective blogging Social media
	Work-based learning and placements <i>Students apply their learning in a real workplace and gain practical knowledge and skills</i>	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Observations Reflections Summative report by placement provider Written report 	<ul style="list-style-type: none"> Blackboard discussion forums Blogs ePortfolio Mobile apps and devices 	<ul style="list-style-type: none"> Reduces the sense of isolation some students feel when out of University Allows easier interactions between geographically separated parties 	Case studies: <ul style="list-style-type: none"> Mobile innovation: Communicating with professional students - Alison Hramiak Related 'Teaching Nuggets': <ul style="list-style-type: none"> Reflective blogging Webinar



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Information-focused Learning	Lectures as pre-work (a.k.a. 'Flipped Classroom') <i>Information and lectures provided as pre-work, contact time used for more interactive purposes</i>	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> In-class tests Peer-reviewed presentation Practical activities (formative) 	<ul style="list-style-type: none"> Blackboard Collaborate Blackboard discussion forums Blackboard tests Electronic Voting Systems Podcasts Resource lists online Video 	<ul style="list-style-type: none"> Allows a variety of media to be used Students can access the information at a time and place to suit themselves 	Case studies: <ul style="list-style-type: none"> Illustrating difficult concepts using screencasts -Cecile Morris Further resources: <ul style="list-style-type: none"> Flipping the classroom - Cynthia J. Brame 7 things you should know about Flipped Classrooms - Educause Related 'Teaching Nuggets': <ul style="list-style-type: none"> 10 minute screencast lecture Tutor concept blogging Webinar
	Resource-centred or facilitated discussion <i>Tutors present artefacts and the class undertake self-directed discussion about them. Students might also select the artefact</i>	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Demonstrations Observation Peer-review Report 	<ul style="list-style-type: none"> Audio Blackboard Collaborate Blackboard Discussion forums Photos Resource lists online Skype Video 	<ul style="list-style-type: none"> Discussions can more easily include external parties Record of discussion can be subsequently analysed 	Further resources: <ul style="list-style-type: none"> 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': <ul style="list-style-type: none"> Social media Webinar
	Micro-research <i>Students given a unique topic to research and later share their findings with the class</i>	<ul style="list-style-type: none"> 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) 	<ul style="list-style-type: none"> Infographic Pecha Kucha Poster Presentation Report Student conference 	<ul style="list-style-type: none"> Audio Presentation tools Resource lists online Video Wikis 	<ul style="list-style-type: none"> Allows flexibility in presentation method and tools Encourages use of different media types Develops skills that will be useful in employment 	Case studies: <ul style="list-style-type: none"> Developing learning literacies with digital posters - Diane Rushton Encouraging learner autonomy through small, self-selected research projects - Chris Corker & Sarah Holland Promoting learner autonomy through media production and presentations - Mike Bramhall Further resources: <ul style="list-style-type: none"> Self-discovery learning - E-Learning Faculty Modules Related 'Teaching Nuggets': <ul style="list-style-type: none"> E-books Peer feedback Social media Webinar
	Teacher-directed learning or traditional lecture <i>Students receive large volumes of information, particularly theoretical information, simultaneously with their peers</i>	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Examination Report 	<ul style="list-style-type: none"> Electronic Voting Systems Presentation tools Twitter 	<ul style="list-style-type: none"> Increase engagement during sessions Encourage interaction during lectures Identify and clarify misunderstandings as they happen 	Case studies: <ul style="list-style-type: none"> Mobile innovation: Stimulating participation in lectures via mobile devices - Ben Abell Related 'Teaching Nuggets': <ul style="list-style-type: none"> 10 minute screencast lecture Webinar



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Peer Learning	<p>Critiquing</p> <p><i>Students critique each other's work or that of a third party and provide advice on improvements</i></p>	<ul style="list-style-type: none"> Helps develop skills in critical thinking, evidencing and evaluation in respect of own and others' work Supports development of reflective capability Students receive richer feedback on how to improve their work based on multiple perspectives 	<ul style="list-style-type: none"> Critical essay Staged development of artefact with reflection on peer criticism 	<ul style="list-style-type: none"> Audio Blackboard discussion forums Blogs Google Forms Video 	<ul style="list-style-type: none"> Can use a variety of media types Critiques can take place over an extended period of time Record of critique and response straightforward to obtain 	<p>Case studies:</p> <ul style="list-style-type: none"> Using peer feedback to enhance employability - Anne Nortcliffe <p>Further resources:</p> <ul style="list-style-type: none"> Creating a culture of critique - David Fawcett Successful Art class critique - Marvin Bartel (relevant beyond Art) Collaborative learning/learning with peers - Institute for Writing and Rhetoric, Dartmouth (covers collaborative critiquing of texts) The Peeragogy Handbook <p>Related 'Teaching Nuggets':</p> <ul style="list-style-type: none"> Peer-feedback
	<p>Debate</p> <p><i>Students are given a fairly controversial topic to research and discuss, developing their understanding</i></p>	<ul style="list-style-type: none"> Develops high-level communication skills and confidence Builds skills necessary in employment, e.g. supporting a personal point of view, advocating on behalf of others, or playing 'Devil's Advocate' Stimulates and engages students by challenging existing beliefs 	<ul style="list-style-type: none"> Blogs or discussion forum, with position post and related discussion Observation Peer-review Report 	<ul style="list-style-type: none"> Audio Blackboard Collaborate Blackboard discussion forums Blogs Skype Video 	<ul style="list-style-type: none"> Easy to obtain a record of the discussion Enables outside parties to be a part of the debate Allows students to take part regardless of time and location issues 	<p>Further resources:</p> <ul style="list-style-type: none"> The how and why of debates in teaching and assessment - Suzy Jagger Designing online debates - University of Virginia Intimate debate technique- National Science Teachers Association (relevant beyond Sciences) <p>Related 'Teaching Nuggets':</p> <ul style="list-style-type: none"> Peer-feedback Webinar

