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Variety in Assignment and Assessment Methods

There are several good reasons to consider offering a variety of assessment methods, beyond the typical quiz/test/exam:

1. Students need to understand concepts deeply, as opposed to memorize information and reproduce it on an exam, so they can handle advanced course work and later work effectively in their chosen field.
2. Students need to be able to apply knowledge in authentic learning and assessment activities to develop the skills necessary for work in their chosen field.
3. Students have diverse abilities, backgrounds, interests, and learning styles, so assessment variety puts all students on a level playing field in terms of demonstrating what they know and can do.

This statement is typical: “In addition to knowledge and technical proficiency in core content areas, ... professionals need well-developed oral and written communication skills, need to be able to work well in interdisciplinary teams (either as leaders or team members), need “people” skills to successfully interact with a diverse set of colleagues and stakeholders, and need a well-developed appreciation of professionalism and ethics” (Abbott, 34).

To develop these types of abilities, students need to engage in authentic learning assessment activities. Authentic assessments:

- Require application of knowledge and skills in a “real world” context (realistic, even if it’s an artificial learning environment).
- Involve unstructured, complex problems that may have multiple solutions. Such problems contain both relevant and irrelevant factors, unlabelled, just like real life, and students need to decide what’s relevant and to develop a solution they can explain and defend.
- Require students to “perform” discipline-specific activities or procedures, drawing on a wide range of knowledge and skills.
- Provide feedback, practice, and opportunities to revise and resubmit solutions, so they can refine their skills, rather like an apprenticeship between the instructor/TA experts and students.

Authentic assessments include such things as performance demonstrations of specific skills, use and manipulation of tools and instruments, oral and/or poster presentations, debates, panel discussions, role plays, teaching others, conducting experiments, and conducting interviews. Also included are “product assessments” such as essays, research reports, annotated bibliographies, data analysis and interpretation, argument construction and analysis, reviews, critiques and analysis of written work,

problem analysis, planning, mapping, budget development, experimental design, peer editing, portfolios, poster, games, and podcast, video, and multimedia productions (Abbott, 37).

Begin assignment and assessment design by focusing on learning outcomes: what do you want students to remember, understand, apply, analyze, evaluate, or create (Davis, 362)? The table below outlines a variety of assignment and assessment options with rationales for using them and implementation details.

Assessment Item	Types	Use to test:	Details	Benefits	Limitations
1. Regular practical application work	<ul style="list-style-type: none"> • Computer simulations & exercises, • Laboratory work • Problems to solve, reflective learning statements • Annotated bibliography • Write a newspaper article • Comment on an article's theoretical perspective • Comment on the accuracy of a set of records • Devise an encyclopaedia entry • Produce an A-Z of... • Write an answer to a client's question • Create a poster 	Accessing and managing information (Researching, investigating, interpreting, organising information, reviewing and paraphrasing information, collecting data, searching and managing information sources, observing and interpreting)	Performing procedures and demonstrating techniques (computation, taking readings, using equipment, following laboratory procedures, following protocols, carrying out instructions)	Keeps students on task: <ul style="list-style-type: none"> • Encourages students early and often • Provides opportunities for students to receive feedback and learn as they do • Encourages deeper learning: application, translation and interpretation of concepts 	<ul style="list-style-type: none"> • Can be time consuming for teachers • Is just a “hoop jumping” exercise if not used formatively (e.g., if there is not opportunity for feedback and rework)
Application Cards			Involves asking students to write down at least one possible, real-world	Provides immediate feedback on how well students understood the	

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			application for a principle, generalization, theory, or procedure that they just learned.	concept and its application, & helps students connect new concepts to prior knowledge. Promotes creative thinking (Abbott, 36).	
2. Final exams		Demonstrating knowledge and understanding (Recalling, describing, reporting, recounting, recognising, identifying, relating & interrelating) Can also demonstrate skills mastery, depending on question type (e.g., scenario with response options, complex problems) and target learning level of questions	Use a mix of multiple choice and essay questions on tests to accommodate differing student strengths. Don't introduce a new test question method on a test or exam that counts. True-false and matching; short answer, problem sets.	Provides indication that students have attained the appropriate knowledge, skills and discipline practices.	<ul style="list-style-type: none"> • Merely summative (e.g., no chance to apply feedback) • A measure of "poise" (e. g., ability to recall information under stress) • Often simply the reproduction of information rather than transformation
3. Online tests or exams	You can add Desire2Learn controls that: <ul style="list-style-type: none"> • Require password access • Randomize question 	Same as above	Online quizzing can be as effective as in-class quizzing, but only under specific conditions (numbers are from a study, and are given to provide sense of	Quizzes done outside of class time and marking is automated. Time limits are associated with better learning and	Have strategies to avoid cheating (see Details column-the methods there address these):

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	<p>selection from a test bank</p> <ul style="list-style-type: none"> • Randomize question order (if there is no test bank); • Randomize answer options (for MC) disable right mouse click to prevent printing and “save as” to another location outside D2L • Set time limits • Require use of specific computers. <p>Can also have proctored online exams.</p>		<p>proportion only):</p> <ul style="list-style-type: none"> • Random selection of 10 questions from a bank of 100 • Reduced 10-question quiz time limit from 15 minutes to 7. (Daniel & Broida, 207). 	<p>exam performance because they reduce the opportunity to look up answers in lieu of learning the material (Brothen & Wombach, 62).</p>	<ul style="list-style-type: none"> • printing and sharing of quizzes, • looking up answers in the book during the quiz, • using an online glossary opened in a window adjacent to the quiz • Taking test in groups
4. Oral exam option		Higher order thinking skills, such as synthesis and evaluation.	A dry-erase board enables students to draw and explain. Instructor has flexibility and discretion to direct the questioning based on real-time feedback during the exam.	Allows instructor to explore the depth of a student’s understanding of a complex subject, and engage in scholarly conversation by guiding students as they negotiate answering a series of complex, related questions and thus assess higher-order learning. May suit students with	<ul style="list-style-type: none"> • Takes a lot of time • Not easily scalable to large numbers of students

Assessment Item	Types	Use to test:	Details	Benefits	Limitations
				certain disabilities.	
5. Open book & take-home tests/ exams		Same as for #2	A variation of a take-home test is to distribute the questions a few days in advance but have students answer them during class (Davis, 368).	Open book tests simulate work environment better, are lower stress.	Students don't necessarily do better on open book tests/ exams because they often do not study & learn material they can look up when needed (Davis, 367).
6. Group exams	<p>1) Stand-alone group assessments: works well when learning activities were carried out by groups</p> <p>2) Hybrid exams that incorporate individual and group components Students take exam independently, then groups are given additional questions to answer collaboratively</p> <p>3) Group retake: give exam individually,</p>	<ul style="list-style-type: none"> • Individual ability to argue a point convincingly • Group interaction skills • Difference between individual and group depth of understanding • Particularly appropriate in field or lab-oriented science courses that include cooperative, collaborative learning activities such as collection, 	<p>Tips (Davis, 368):</p> <ul style="list-style-type: none"> • Ensure students have practice working in groups before assigning group exams. • Have students discuss each question thoroughly and weigh merits of each option rather than just vote on options. • In Hybrid, (2), mark group answers separately and add them to the individual mark. In (3) Group retake and (4), Peer coaching, average the two marks. Consider bonus points to reflect degree of 	Show students the differences in aggregate scores individually vs. group. Almost always, the group score is higher.	<ul style="list-style-type: none"> • Takes careful thought and planning for successful implementation • Take measures to minimize social loafing • Ask each student to sign the group exam as verification that it reflects the work of the group accurately

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	then retake in groups 4) Peer coaching: after taking an exam individually, groups discuss the exam, and students subsequently retake the same exam individually (Abbott, 37).	analysis, and interpretation of data	improvement as incentive for students to teach each other. <ul style="list-style-type: none"> Variation on group exam: have students work on test questions in groups outside of class but write the test individually during class (Davis, 368). 		
7. Essays and Assignments	<ul style="list-style-type: none"> Make a video Report Journal Letter of Advice to ... (about policy,...) Present a case for an interest group Prepare a committee briefing paper for a specific meeting Book review (or article) for a particular journal 	Thinking critically and making judgements (Developing arguments, reflecting, evaluating, assessing, judging)		Opportunity to: <ul style="list-style-type: none"> Develop an extended argument Achieve depth rather than breadth of learning Develop capacity to interpret, translate, apply, critique and evaluate Pose problems and conduct inquiry Explore the boundaries of what is known 	<ul style="list-style-type: none"> Time consuming to mark Often one-off and fails to require students to use feedback to improve performance
8. Article review		As above, and for higher level thinking skills, such as synthesis and evaluation		<ul style="list-style-type: none"> Requires interpretation and evaluation Opportunity to gain insight into how expert practitioners do their 	<ul style="list-style-type: none"> Students may need instruction on how to review Difficult to find

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				work	appropriate articles
9. Field reports	<ul style="list-style-type: none"> Diaries Journals 	Attention to detail, ability to manage detail, learning from reflection on experience	Effective means of collection of data, evidence, impressions, thoughts, etc. for later reflection and lessons learned from experience.	<ul style="list-style-type: none"> Authentic form of assessment Develops observation and recording skills Requires organisational skill 	<ul style="list-style-type: none"> Marking is time-intensive Need to consider ethical and safety issues
10. Portfolios	<ul style="list-style-type: none"> Binders Online CDs 	Designing, creating, performing (Imagining, visualising, designing, producing, creating, innovating, performing)	A collection of student work examples with inclusions carefully selected and justified, with a unifying theme and evidence of high levels of ability.	<ul style="list-style-type: none"> Can be used to demonstrate progress towards, and achievement of, topic or course objectives Understanding of complexity of professional roles Synthesis of what students have learned in several topics Capacity to use new understandings in original ways in unpredictable work contexts Valid and authentic assessment as they can include real world tasks Focus on higher order thinking Students have to accept 	<ul style="list-style-type: none"> Low stakes Consistency between students is low Time consuming for students and teachers

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				a high degree of responsibility so it is empowering	
11. Performance & presentations	<ul style="list-style-type: none"> • Oral presentation • Discussion/debate/role play • Participate in a 'Court of Enquiry' • Presentation to camera • Observation of real or simulated professional practice 	<p>Communicating (One and two-way communication; communication within a group, verbal, written and non-verbal communication. Arguing, describing, advocating, interviewing, negotiating, presenting; using specific written forms)</p>		<ul style="list-style-type: none"> • Provides alternate modes of assessment • Authentic tasks that set students up for real-world practice • Develops skills that are useful in the field 	<p>Difficult to "capture" and reflect on in order to assess</p>
12. Case studies, scenarios, problem-based assessment, role plays	<p>Well structured and unstructured, low and high "fidelity" (correspondence to real world), simple to complex</p>	<p>Application and analysis skills</p>	<p>Realistic or authentic or actual (for case studies) problems or issues that require identification of key elements, drawing upon many concepts, and the selection of responses, as well as feedback on the responses (for scenarios, often there are multiple paths of further scenario development depending on</p>	<ul style="list-style-type: none"> • Provides performance improvement that comes from repeated practice while being coached • Much deeper mastery of concepts • Ability to use concepts after course 	<ul style="list-style-type: none"> • Time consuming to create • Reserve for the most important concepts that students need to be able to apply

Assess-ment Item	Types	Use to test:	Details	Benefits	Limitations
			the initial and subsequent response options selected).		
13. Projects	Group and individual	Higher-level thinking skills, such as synthesis and evaluation	A very wide range, but generally involve creating a project goal or problem statement, use of a variety of resources, development of plan of execution, and collection of data that will determine if the project goal was met or problem solved and to what degree.	<ul style="list-style-type: none"> • Authentic, real world tasks • Capture students' interests • Benefits “hands on” learners—those who are quick to try things out and learn from experience and mistakes 	Time consuming to set up (detailed explanation, marking scheme, often involves grading rubrics)
14. Indepen-dent study		Managing and developing oneself (Working and learning independently, being self-directed, managing time & tasks, organising)		<ul style="list-style-type: none"> • Encourages engagement with material • Captures students' interests 	Consistency is low
15. Peer assess-ment	A portion of a group work mark can be devoted to students' evaluation of each other's contributions to group work	<ul style="list-style-type: none"> • Development of group interaction and contribution skills • Evaluation of students' own and others work contributions and quality 	Set up rules for group contribution and comportment (preferably in consultation with students) and then create a grading rubric that students use to evaluate themselves and each other.	<ul style="list-style-type: none"> • Sets explicit performance expectations • Helps students develop interaction & cooperative learning skills • Helps students take responsibility for own work and behaviour • Helps students develop effective skills in providing helpful 	<ul style="list-style-type: none"> • Time consuming to run • Requires frequent instructor circulation and monitoring and positive behaviour modification

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Assessment Item	Types	Use to test:	Details	Benefits	Limitations
				feedback on other students interaction and contribution skills	skills

References:

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