| **Assessment method** | **Advantages** | **Disadvantages** | **Feedback dialogues** | **Contract Cheating?** |
| --- | --- | --- | --- | --- |
| **Exams*** Traditional unseen, time constrained, written exams, which largely use essay style questions.
* For a detailed discussion of the pros and cons of traditional exams and alternative exam approaches, see Race (2020), Chapter 2.
 | * Regarded as fair, avoiding problems of plagiarism and cheating, and amenable to yielding data which can be handled quantitatively.
* Most students are relatively familiar with traditional exams (but this does not mean they have mastered their techniques at tackling them).
 | * Traditional exams only measure ‘what comes out of students’ pens’ which is an inadequate proxy for ‘what’s in their heads’.
* Speed of handwriting and legibility can affect performance.
* A great deal of time is used in marking exams, often against the clock.
* Students lack opportunity to improve and fine-tune their work, as they would normally do without time constraints.
 | * Usually, no dialogue possible. Only the mark may be given, or exams may even be just pass/fail.
* There is usually quite a time lag before students find out anything about how they did.
 | * Largely impossible.
* There can be cases of substitution of candidates.
* There is always the possibility of crib notes, copying.
* Effective invigilation is a major deterrent to cheating in exams, possibly with recorded video surveillance.
 |
| **Open-book or open-note exams** * Students can take into the time-constrained exam specified or unspecified texts and notes, so that the questions focus not on memory and recall, but on interpretation and analysis;
 | * Can take away the focus from memorizing.
* Moves focus away from what students can write, towards what they can do using supplied information.
 | * Designing good questions for open-book or open-notes exams is quite different from designing traditional exam questions, and is a skill which staff need to practise to develop fully.
 | * Usually no dialogue possible – just mark or grade.
 | * Little chance of direct contract cheating.
* Candidates can, however, if they know likely questions, take in with them ready-made answers they previously bought online.
 |
| **Take-away papers*** Students are given, say, a week in which to prepare an answer to a given topic effectively as a short-term course work assignment.
 | * Allows a more normal approach to researching and preparing answers than in traditional exams.
* Best to use quite strict word limits – otherwise tendency for longer answers to score more marks.
* Can allow students to make successively better drafts.
 | * Take away papers can disadvantage students with hectic home lives.
* Students may find it difficult to stop drafting and submit!
 | * Peer dialogue possible pre-submission, but not necessarily allowed, as authenticity could be compromised.
 | * Contact cheating quite possible, even though timescales may be tight – costs more!
 |
| **Short answer questions exams** * Students produce short responses to large numbers of questions, enabling high coverage of topics, with less reliance on elegance of sentence construction and argument.
* Can be computer-based.
 | * Moves away from ‘speed of extended writing’ as a necessary skill, and allows a wider range of subject material to be tested.
* Can focus on decision-making, rather than information reproduction.
 | * Does not give students the opportunity to demonstrate their overall mastery through connecting things together.
* Marking scheme needs to be constructed carefully, to prevent ‘easy’ questions being scored unduly.
 | * The only feedback dialogue possible is if such papers are used as class exercises, with feedback from tutors and peer-feedback.
 | * Very little chance of contract cheating.
* When computer-based, questions can be supplied in randomised order to different candidates, to make direct copying less possible.
* Cyber-invigilation can be used, to detect inappropriate ‘eyes wandering’.
 |
| **Essays*** One of the most heavily used methods of assessment, for example on humanities courses, and other courses where extended written argument is requires, sometimes with least justification other than ‘this is how it’s always been done’!
 | * Enables students to demonstrate the ability to construct an argument and to write fluently, coherently and at length.
* Assessors claim to be familiar with essay marking.
 | * Rarely used in mainstream occupations, so not an authentic means of assessment for most courses.
* Readily plagiarisable.
* Too much time spent marking.
* Students may be graded on their essay technique, rather than their subject mastery.
* Despite familiarity with essays, research shows marks can be very variable between assessors.
 | * Opportunity to provide tutor feedback in writing, and face-to-face feedback dialogue with students.
* Peer-feedback may be possible, but more difficult to manage.
 | * Highly possible.
* Research shows it is very hard for assessors to recognise it.
* Face-to-face vivas on essays can discourage it.
 |
| **Reports*** The fall-back means of assessment for many courses, when exams or essays are not used.
 | * More authentic than essays, as students may enter careers where report-writing is a requirement.
* Can be an indirect way of measuring practical and field work.
 | * Reports are often based on practical and field work and done collaboratively by students, but are usually required as individual write-ups, so the report-writing itself may end up being assessed, when perhaps the collaboration was more important.
 | * Feedback monologues fairly easily made by tutors, but dialogue only possible when reports can be discussed face-to-face with individuals or groups of students.
 | * Very possible, and difficult to detect without face-to-face discussion with candidates.
* Reports can be commissioned readily online, then adapted for submission.
 |
| **Practical work*** Reports are often used to give some measure of students’ skills regarding practical work, but as such work can be so important in its own right, it can be useful to have other more-direct measure of students’ practical skills and competences.
 | * It can be very useful to have some direct evidence of students’ practical abilities, rather than just measures associated with report design and production.
* Employers value clear indications of how well students can actually do things, rather than simply know what they should be able to do.
 | * It can be very time-consuming to arrange the observation which may need to be arranged of each student’s practical work.
* Different observers may have conflicting impressions of how well students do things in practice.
 | * It can be really beneficial to have feedback dialogues in practical contexts, allowing students to learn directly from people already skilled in particular practical skills.
 | * Unlikely to be a problem regarding practical work unless substitution occurs.
* However, if only reports are assessed, contract cheating is quite possible, and hard to detect.
 |
| * **Multiple choice questions with feedback responses** Getting students to design multiple-choice questions *and* feedback responses is an excellent learning activity, and can lead to the development of substantial question banks for formative use.
 | * Excellent for quick testing of factual material. Feedback on correct or incorrect choices can be given instantly, allowing rapid formative feedback on learning.
 | * While suitable for formative purposes, it is much harder to design high-quality multiple-choice questions for summative assessment.
* Questions must be piloted extensively to determine facility values and discrimination indices to select which questions are suitable to include in summative tests.
 | * Formative feedback readily possible, but dialogue is achieved when such questions are used live in class with peer-discussion.
 | * Contract cheating not applicable.
* Students can ‘cheat’ by trial and error with options, but still have the opportunity to learn from feedback responses.
 |
| **In class multiple choice, with ‘clickers’ and with ‘confidence ratings’*** See for example work of Fabio Arico (2020)
* Very suitable for fairly large groups.
* Can use clickers issued for the session, or mobile phones with suitable online software e.g. mentimeter or cahoots.
 | * Students can choose – or guess – correct answers, and see display on screen showing how they fit into the whole class results. They can also show confidence ratings for the option they chose, and see how this compares with class results.
* Test can be repeated after some teaching, and students can see how their learning and confidence have both improved.
 | * Needs laptop or main computer fitted with software allowing display of results.
* If not all students have mobile phones, clickers may need to be issued then collected.
* Dependent on the technology working properly.
* Question-setting needs practice to come up with questions with credible distractors.
 | * Essentially, this provides fairly rapid feedback dialogue with the correct response and with the choices of the rest of the group.
* The confidence rating part helps to increase students’ perceptions of how confidently or not they know the best choice for each question, and can see confidence developing.
 | * Contract cheating not applicable.
* Guess work is permitted and even encouraged, as students get quick feedback on each choice they make.
 |
| **Sophisticated computer-based tests** * On individual machines in a computer-lab, using a wide range of question types including drop down menu selection, drag and drop, clicking points on graphs, interpreting data from maps and diagrams etc.
 | * Best suited to large cohorts and multiply presented courses, where it can be exceptionally efficient.
* Helps new students build confidence as they self-test on new and familiar material.
 | * Tends to require considerable work to design good computer-aided assessment. When it is bad, it leads only to efficient guesswork.
* Needs networked machines if data is to be collected for assessment purposes.
* Needs expertise in question design, subject content, and technology to support it.
 | * Feedback dialogue only really possible when used live in class or group contexts, otherwise any feedback can’t be considered dialogic.
 | * not applicable.
* Students could ‘cheat’ if they can see which questions others are answering, but question order can be randomised to counteract this possibility.
 |
| **Portfolios*** **(often electronically submitted versions nowadays)**
* A variety of sophisticated software packages can be used, to make it easier for students to collect and structure portfolio elements.
 | * Allows learners to present wide-ranging evidence of achievement, and to show originality and creativity alongside mastery of subject knowledge.
* Portfolios can be maintained over a considerable time scale, and show development, and can be useful evidence of achievement to show to prospective employers.
 | * Takes time to mark, and assessment reliability can be quite low as different assessors tend to look for different things when assessing wide-ranging evidence of achievement.
 | * Feedback dialogue not really possible unless face-to-face discussion is available with assessors, or when students compare each other’s portfolios.
 | * Contract cheating possible – elements of portfolios can be commissioned online, and adapted to fit in.
 |
| ***Viva voce* individual oral tests or interviews** * Joughin (2010) proposes a strong case for increased use of oral assessment as part of a balanced range of assessment methods in present-day contexts.
 | * Allows probing questions to check for understanding.
* Widely used for high-stakes assessment, such as at doctoral and master’s levels.
* Regarded as authentic, as many careers and professions may depend on face-to-face skills at answering questions and giving persuasive explanations.
* The face-to-face dimension allows assessors to gauge students speed and confidence at answering questions in ‘real time’, in contrast to most other assessment methods.
* Probing questions can be used, e.g. ‘how else…?’, ‘why else’ and so on, to explore students’ depth of knowledge.
 | * Some candidates can be let-down by nerves in face-to-face ‘grillings’.
* Students with speaking problems may not do themselves justice, and hesitation (e.g. from stammering) may be misinterpreted as lack of knowledge.
* Evidence of achievement may be ephemeral, and it is hard to analyse retrospectively, unless recordings have been made.
* Difficult to guarantee fairness between candidates, especially when variations in levels of probing occur.
* With large cohorts, it can be difficult to timetable oral assessment in ways which prevent ‘leaking’ of questions to forthcoming candidates.
* It can be best if two or more assessors are present, so there is always a ‘witness’ if a question isn’t answered well, in case of appeals.
 | * Feedback dialogue is possible, but in the context of assessment care is needed regarding ‘leading’ feedback steering candidates towards better answers or explanations.
* The immediacy of feedback can be useful, for example facial expression and body language of assessors, as well as their comments.
* When group contexts are used, students can learn from dialogues arising from answers from fellow-students.
 | * The only significant possibility of cheating is if questions ‘leak’ and successive students can then prepare and rehearse oral responses to these questions.
 |
| **Presentations*** These may be individual presentations, or group presentations, usually to an audience and not just the assessor.
* Assessment criteria are usually known in advance, and include competence and speed in answering reasonable questions arising from the presentation.
 | * Allows candidates to demonstrate oral communication skills alongside subject mastery.
* Authentic: oral skills often important in future employment.
* Peer-assessment can make presentations a better learning experience for all.
* Can include ability to respond to spontaneous questions from the assessor.
* Can include assessment of the ability to respond to questions from the audience.
 | * Time-consuming.
* May be hard to strike a balance between mastery of content, and skills of presentation.
* ‘Raising the bar’: expected standards can become higher over a series of presentations.
* ‘Impression’ marks can be associated with the quality of presentation slides or resource materials used in the presentations.
* Unless recorded, presentations are ‘ephemeral’, making it hard to compare a series reliably.
 | * There are opportunities for feedback dialogues, but these can be limited by any need not to interrupt presentations.
* Students in groups can learn a great deal from feedback to other students’ presentations.
 | * Contract cheating not usually directly possible, but students preparing for a known presentation may indeed use contract cheating to prepare support materials, and then rehearse the presentation to make it credible and fluent.
 |
| **Posters** * Exhibitions of posters can be kept photographically or online, and used to train future candidates in the preparation of their own posters.
* Assessment if often coupled with the ability to discuss the content of the poster orally, and answer questions based on the poster.
 | * Posters can be an authentic form of assessment, in that many disciplines will require employees to present and justify things visually to an audience.
* Allow candidates to integrate a range of evidence of achievement in an agreed visual format.
* Posters can be compared with each other in an amenable way.
* Lend themselves to peer-assessment, and assessment by third parties, for example professionals in the field or employers.
* Assessment can include ability to answer probing questions on the material covered on the poster.
 | * Can be time-consuming to assess a set of posters.
* The visual appearance and design of the poster can rate too strongly in the overall assessment, as opposed to the thinking behind the poster.
* Some candidates may have better access to resources (colour, photos, and so on), possibly compromising the fairness of assessment.
* It may be necessary to set limits regarding size of poster, colours used or not, font size and so on, so that assessment is on a ‘level playing field’.
* Some candidates may find the oral part of discussing their poster or answering questions challenging
 | * Feedback dialogues are possible, and students can also learn from feedback discussions arising from other students’ presentations.
 | * Contract cheating is possible, both relating to the design of posters and to the physical quality of the posters.
* It could be hard to distinguish contract cheating from legitimate help and support in preparing posters.
 |
| **Projects*** This is a common form of individual assessment, to help students develop and practise skills relevant to research work.
* Assessment is often split between the project report itself, and oral explanation or defence of the work concerned.
 | * Can be used for in-depth investigations that develop research skills.
* Allow candidates to demonstrate originality and creativity, which they might subsequently need to show in larger-scale dissertations or theses in future major assessed work.
* Can cause students to engage with relevant literature, and produce literature reviews.
 | * Assessment can be very time consuming.
* Assessment reliability mlay vary strongly across different assessors.
* Reliability of assessment can be compromised when projects are quite different in scope, range or level.
* Tendency for presentation factors to influence assessment unduly.
* Work effort on projects tends to increase, as assessment deadlines approach!
* Can be necessary to have tight deadlines, as any extra time can lead to better scores.
 | * Feedback dialogues are possible while project work continues, allowing specific formative feedback discussions with individual student or with groups.
 | * Possible: academic integrity can be compromised when students use or commission material from others.
* Difficult to prove, unless assessment also included face-to-face viva, or associated presentation elements.
 |
| **Dissertations and theses*** These are normally extended written (or digital) works, often presenting in-depth analysis and discussion of the findings of research projects
* Dissertations or theses are necessarily very individual in nature and scope.
* They can be evidence that the student concerned is able to undertake sustained and systematic work both in undertaking the work involved, and constructing a convincing and organised account of it.
 | * These can be major assessments required at Masters’ or Doctoral level, and constitute a defining measure of the level and scope of the achievements of individual students.
* A normal part of a dissertation or thesis is a critical review of the state of the field concerned, and existing published work in the field. This helps students to develop the required perspective-setting skills to see ‘the big picture’ around the elements they are researching or reviewing.
 | * A danger is that too much credit is associated with the presentation of dissertations or theses, at the expense of the level of in-depth thinking, creativity and originality which underlies the presented evidence.
* Students working towards these large-scale forms of evidencing their achievements can feel lonely and isolated on the journey towards producing them, so supportive and responsive supervision can be necessary for them.
 | * Feedback dialogues (for example with supervisors) can play be big part in students’ learning, and can provide face-to-face guidance and encouragement in the work leading towards a dissertation or theses, and also on how best to go about producing the final product, and how to present it at any oral exam or viva involved.
 | * Known to be subject to potential contract cheating, but likelihood reduced considerably if there is a viva or oral exam at the end.
* Difficult to ascertain whether individual sections could have been downloaded from elsewhere (as indeed quotes from the literature might have been included quite legitimately (if properly cited/referenced).
 |
| **Case studies*** A bank of case-studies can be built, to allow students the opportunity of rehearsal to develop the required skills and competences to do well.
 | * Increased authenticity because they are ‘real-world’ scenarios.
* Allow candidates to demonstrate originality and creativity, especially where candidates construct case studies.
* Demonstrate creative problem-solving especially where all candidates work with given case studies.
 | * Written communication may dominate the assessment (unless an element of oral assessment is used as well).
* It is impossible to have a range of case studies of exactly equal ‘difficulty’.
 | * Feedback dialogue can happen when students individually or in groups benefit from tutor and peer feedback on their work on case studies.
 | * Possible for work on case studies to be subject to contract cheating.
 |
| **Simulations*** Heavily used in professional subjects like aviation and surgery to test competence in safe contexts.
 | * Can measure a range of practical skills and competences beyond written and oral communication.
* Highly authentic when relating to particular professions and contexts.
 | * Take time to design, which is offset by advantages when high numbers of candidates are involved.
* If there is a choice element, it is difficult to design simulations of equal difficulty.
 | * Students can learn much from face-to-face feedback dialogues arising from how they tackle their work on simulations contexts.
 | * Contract cheating could be used to answer particular questions based on simulations, but very unlikely.
 |
| **OSCEs (Objective Structured Clinical Exams)*** OSCEs are highly regarded as authentic, valid and reliable assessment processes in medical and clinical education, but the process can readily be extended to contexts such as business, policing, law etc.
 | * Allow candidates to be tested on high-level skills, in authentic contexts (e.g. interpreting X-rays, interviewing patients (actors), interpreting case notes, making diagnoses, deciding on prescriptions etc.).
* Assessment can be quite quick, when detailed rubrics have been developed for an OSCE.
 | * Designing OSCE scenarios can be time-consuming, but can be designed by groups of students in prize competitions – the real prize being that some of the scenarios they submit are actually used in their own OSCEs.
* Like traditional exams, can depend on ability ‘on the day’ rather than ongoing ability – nervousness can come into play.
 | * When OSCE scenarios are used formatively, students can learn a great deal from feedback from assessors on their attempts in an OSCE context, and can learn from feedback arising from the work of fellow students, and peer-discussion.
 | * Contract cheating unlikely, as OSCEs tend to be held in exam-like settings.
 |
| **Reflective Journals*** When reflective journaling works well, students continually develop their learning on the basis of reflection.
 | * Deepens learning by reflection, and can demonstrate analysis, creativity and originality.
* Can cause students to develop reflective approaches to learning/
 | * The skills of composing written reflections may be too important, with the risk of assessment being based too much on narrative rather than reflection.
 | * Feedback dialogues are possible, when assessors can talk to students about their view of the reflections.
 | * Can be subject to contract cheating, but less likely if reflective writing requires detail of individual experiences.
 |
| **Critical incident accounts*** A bank of critical incidents can be accumulated, providing students rehearsal opportunities to develop skills at handling this assessment format. Then try presenting students with pre-determined incidents, so that their performance can then be compared.
 | * Allows students the opportunity to choose particular incidents, analyse them in depth, and demonstrate creativity and problem-solving skills.
* Can be word-constrained, thereby increasing ‘cut-to-the-chase’ writing or speaking.
* Critical incidents are authentic, developing candidates’ skills for real-world problem-solving.
 | * Incidents inevitably have differing levels of difficulty.
* The skills of composing incident accounts may overshadow the interpretation and imagination being sought when discussing critical incidents.
* Some students may already be more familiar with particular kinds of critical incidents, and be advantaged.
 | * Distinct feedback can be provided to each different student, and there is the possibility of dialogue if this feedback can be a face-to-face discussion, bringing tone-of-voice and other human factors into play.
 | * Amenable to contract cheating, especially if the time-scale is length, and the subject fairly well known.
 |
| **Assessed seminars*** It may be difficult to assess students’ contribution to seminars ‘live’ but students’ continued participation in a seminar series can be increased if assessment is triangulated by the inclusion in a summative exam of one or more questions relating to things addressed in the seminars.
 | * Ideally, seminars should be prepared and led by students (individually, or in pairs), and should involve peers and tutors as active audience participants.
* A series of seminars can give each student the chance to prepare in-depth an element of the curriculum, and present it to the group, and be questioned on it by the group.
* The assessment can be high in validity, relating to depth of knowledge, as well as communication skills and the ability to answer probing questions
 | * It is hard to allocate topics of equal difficulty to a large group of students.
* Over a series of seminars, ‘drift’ occurs, as later presenters cannot fail to bring in what they’ve learned from earlier seminars
* Difficult to assess audience participation at anything more than a basic level.
* Students who have already presented may switch off and failing to contribute or attend later seminars.
 | * Feedback dialogues are possible, and students actively participating as audience members can experience giving feedback and can develop better skills regarding receiving feedback themselves.
 | * Contract cheating not really applicable, unless assessment depends on written accounts – meaning that it would be easier to detect it in this context.
 |
| **Annotated bibliographies*** A collection of annotated bibliographies can be turned into a resource-bank, and issued to future students as a starting place for them to develop their own bibliographies.
 | * A useful way to engage students with the relevant literature, rather than just collecting information on it.
* Candidates can demonstrate their depth of study of the sources and the breadth of the source material they have reviewed.
* Plagiarism is limited. Although students may choose the same sources, it would be easy to spot identical annotations.
 | * The extent of the literature may mask the depth of thinking *about* the sources.
* Avoid this by setting an exact number of sources to be included, and by asking students to include some elements of prioritisation of how well the respective sources measure up to two or three given criteria, alongside their own judgements about the sources.
 | * Face-to-face discussion of existing annotated bibliographies can provide students with useful feedback regarding how best they can go about structuring and organising their own work in this format.
 | * Contract cheating is possible, as with many forms of written assessment not likely to be triangulated by an oral face-to-face element.
 |
| **In-tray exercises as exams*** For example, in an exam on ward management, students could find on their exam desks no questions, but a set of paperwork for them to study for a while, including logs of patients on the ward, doctors available, other facilities available on the ward etc. Then (say) 20 minutes into the exam, they each received a slip of paper, for example “Incident at the airport. The following three patients will arrive in 15 minutes. What will you do?” The students write down their decisions, based on the information available to them. Other ‘incidents’ are given to them at different stages in the exam.
 | * This kind of assessment is strong on authenticity, as it measures the skills the candidates will need in their careers.
* Reliability of assessment is high, as normally there will be ‘best’ choices in terms of the decisions and actions required.
* This kind of exam focuses on thinking, rather than merely writing.
* Since all the students have the same in-tray exercises, the assessment is fair.
 | While exams based on in-tray exercises get away from measurement of ‘speed of writing’ towards ‘quality of thinking’, different students’ ‘speed of reading/absorbing’ the information provided can be a problem. Because of the relevance of ‘in-tray’ exercises and problems, a bank of such resource materials can be useful in the day-to-day teaching and learning of the subjects involved, and particular exercises can be used as examples to add variety to whole-class contexts such as lectures. | * In-tray scenarios can be used in class or group situations, where students can benefit from feedback dialogues about the most effective ways of making and communicating the decisions and actions which may be required by such exercises.
 | * Not subject to contract cheating, as even if the topic were known in advance, the students would be unlikely to have available the briefing materials to supply to the providers of answers to the questions used in the particular in-tray exam.
 |
| **Artefacts** (e.g. sculptures, paintings, architectural designs, engineering models) | * Assessment of artefacts such as these is high on validity and authenticity.
* Artefacts are useful as evidence of achievement to show prospective employers.
* Where the artefacts can be retained (or photographed) by the institution, they provide excellent indicators of the standards of evidence of achievement for new students to work towards
 | * Assessment can be compromised in terms of reliability where different judges have their own idea of what constitutes excellence.
 | * Ideally, feedback dialogues can be used as part of the assessment of artefacts, also allowing students to explain how and why they have produced particular artefacts in the ways they have used.
 | * Can be subject to contract cheating, unless this would be discovered in a face-to-face assessment element about the artefacts produced.
 |
| **Work-based learning*** There has long been a view that higher education does not adequately prepare students for the challenges they will meet in ‘real life’ contexts, where they will need to respond quickly and effectively to emerging challenges and contexts, and show creativity, flexibility and initiative that is not easily learned in normal ‘academic’ study contexts.
* Increasing use is being made of assessment based on students’ performance in the workplace, for example on placements as parts of work-based learning programmes.
 | * Employers are very keen see evidence of students’ skills in terms of work readiness, rather than have to rely on assessment which they may see as unduly academic.
* Work based learning can provide an important bridge between students’ academic studies and the employment they later enter into, and can help students develop the communication and interpersonal skills they will need to fit in well in work environments.
 | * It can be hard to make work-based learning sufficiently realistic and authentic, it is important to involve real employers in the design and processes underpinning students’ experience of work-based learning, so that students gain a true perspective of the skills and attributes they will need to bring to their own future employment.
 | * There can be a great amount of genuine feedback dialogue during work-based learning, where students learn from feedback from supervisors and workplace colleagues, and indeed from each other.
 | * Contract cheating remains a possibility, at least for report-form based some parts of the assessed account of the work experience.
 |