AI - Use in Assessments - Protecting the Integrity of End-Point Assessment Guidance

Contents

Overview

This guidance should be read in conjunction with Professional Assessment Ltd (PAL's) plagiarism and cheating policy and Maladministration and Malpractice Policy (External).

Context of Assessment and Artificial Intelligence (AI)

Where apprentices undertake their assessments under the strict supervision of an approved Independent Assessor with limited or no access to authorised materials and no permitted access to the internet, the delivery of these assessments will be unaffected by developments in AI tools (chatbots) as apprentices will not be able to use such tools when completing these assessments.

Where assessments are conducted remotely and the assessment process uses secure on-line portals and platforms and screen sharing, it is imperative that the Independent Assessor and/or Invigilator checks that the apprentice has no access to the internet and no access to any additional smart devices, which may be used to access AI resources.

The type of assessments that can be affected and influenced by AI are those where the apprentice is permitted to undertake research and present evidence of their work to demonstrate competence in elements of their job role which are prescient for specific knowledge, skills, and behaviours of their assigned apprenticeship standard. Specifically, the forms of evidence such as presentations, projects, reports, and portfolio work could make use of AI platforms as research tools.

To protect the integrity of assessment and assure authenticity PAL as an EPAO would want all research tools/media appropriately referenced and as part of our plagiarism checking process, will check for AI produced work. Where AI produced work is found, and the apprentice has not referenced such work, PAL will regard this as plagiarism.

What is AI and what are the risks it poses to independent end-point assessment?

AI use refers to the use of AI tools to obtain information and content which might be used in work produced for assessments which lead towards approved recognition of competence and qualification /apprenticeship standards certification.

While the range of AI tools, and their capabilities, is likely to expand greatly in the near future, misuse of AI tools in relation to any end-point assessments at any time constitutes malpractice. Trainers, teachers, lecturers, employers, and assessment Centres and end-point assessment organisations should also be aware that AI tools are still being developed and there are often limitations to their use, such as producing inaccurate, flawed, made-up or inappropriate content.

AI chatbots are AI tools which generate text (and as AI increases in sophistication and capability AI tools are increasingly able to create images and graphs) in response to user prompts and questions. Users can ask follow-up questions or ask the chatbot to revise the responses already provided. AI chatbots respond to prompts based upon patterns in the data sets (large language model) upon which they have been trained. They generate responses which are statistically likely to be relevant and appropriate. AI chatbots can complete tasks such as the following:

> ➤ Answering questions

> ➤ Analysing, improving, and summarising text

> ➤ Authoring essays, articles, fiction, and non-fiction

> ➤ Writing computer code

> ➤ Translating text from one language to another

> ➤ Generating new ideas, prompts, or suggestions for a given topic or theme

> ➤ Generating text with specific attributes, such as tone, sentiment, or formality

> ➤ Developing assessment instruments such as multiple-choice questions

Some of the AI chatbots currently available include:

> ➤ ChatGPT (https://chat.openai.com)

> ➤ Jenni AI (https://jenni.ai)

> ➤ Jasper AI (https://www.jasper.ai/)

> ➤ Writesonic (https://writesonic.com/chat/)

> ➤ Bloomai (https://huggingface.co/bigscience/bloom)

> ➤ Google Bard

The number and sophistication of chatbots will continue to evolve at a fast pace and the risk for assessment is their detection will prove more and more challenging, as the bots learn from the information requested of them, and ultimately learn from each other.

There are also AI tools which can be used to generate images, such as:

> ➤ Midjourney (https://midjourney.com/showcase/top/)

> ➤ Stable Diffusion (https://stablediffusionweb.com/)

> ➤ Dalle-E 2 (OpenAI) (https://openai.com/dall-e-2/)

The use of AI chatbots does pose significant risks when used by apprentices completing end-point assessments. As noted above, they have been developed to produce responses based upon the statistical likelihood of the language selected being an appropriate response and so the responses cannot be relied upon.

It is worth noting that at present **AI chatbots often produce answers which may seem convincing but contain incorrect or biased information. Some AI chatbots have been identified as providing dangerous and harmful answers to questions and some can also produce fake references to books/ articles by real or fake people.**

What is AI abuse?

As has always been the case, and in accordance with the General Conditions of Recognition and by definition section J1.8 which states that:
"**Authentication**
A process under which evidence generated by a Learner in an assessment is confirmed as having been generated by that Learner (or identified and confirmed as being that Learner's contribution to group work) and as being generated under the required conditions".

For apprentices undertaking end-point assessment, this demands that any work submitted or presented as part of their readiness (gateway approval) and /or end-point assessment must be their own and any research tools deployed, including AI chatbots must be correctly cited and annotated. **This means both ensuring that the final product is in their own words and isn't copied or paraphrased from another source such as an AI tool, and that the content reflects their own independent work.** The Apprentice should be responsible for the content of their work and in submitting any work to PAL and in accordance with our authentication guidelines when their work is presented to the EPAO or the individual assessor, it is accepted as authentic, however will be subject to appropriate plagiarism checks.

PAL recommends that in support of apprentices, during the on-programme element of the apprenticeship journey, Training Providers and Employers ensure their apprentices understand what is meant by plagiarism, know how to effectively research for work and are aware of the consequences if plagiarism is detected by the EPAO, which dependent on the circumstances may include a refusal from PAL to continue the EPA and thereby a fail will be issued or the apprentice will be required to resit and resubmit new work, subject to the assessment plan, even if the resubmission passes and the work is judged as authentic, the overall grade is most likely to be limited to a pass.

Apprentices are expected to demonstrate their own knowledge, skills and behaviours as required for the apprenticeship standard in question and set out in PAL's apprenticeship standard specification. This includes demonstrating their performance in relation to the KSBs assigned by the specific assessment component as detailed in the relevant assessment plan. **Any use of AI which means apprentices have not independently demonstrated their own attainment will be considered malpractice.** While AI may become an established tool at the workplace in the future, for the purposes of demonstrating knowledge, understanding and skills for qualifications, it's important for apprentices' progression that they do not solely rely on tools such as AI to acquire knowledge and understanding of specific topics or rely on AI chatbots to produce written work.

It is crucial that as part of the apprenticeship programme, Apprentices develop their capacity to learn and recognise learning can be undertaken and supported by various means and media, whilst at the same time appreciating sustained and real learning comes from the process of understanding, and questioning: ideas, instructions theories and innovations and practicing and applying skills in a workplace setting. Using AI can circumnavigate these opportunities. That is not to say there is no place for AI, that is not the case, it should be a part of their learning toolkit, not the only go to for an answer.

It is legitimate to use AI tools for the purpose of research, or to test out or support evaluation of ideas, concepts, or theories, and where used in this context PAL requires the AI chatbot to be clearly identified and referenced. AI can also be used for draft versions of work for example in translating text, but any final submission of such work must reflect the apprentice's 'voice' and be authentic to them.

PAL does not expect an apprentice to copy and paste or download complete works. Projects, reports, and presentations should reflect not only the apprentice's competency and experience.

Examples of AI misuse include, but are not limited to, the following:
➢ Copying or paraphrasing sections of AI-generated content so that the work is no longer the apprentice's own
➢ Copying or paraphrasing whole responses of AI-generated content
➢ Using AI to complete parts of the assessment so that the work does not reflect the apprentice's own work, analysis, evaluation, or calculations
➢ Failing to acknowledge use of AI tools when they have been used as a source of information
➢ Incomplete or poor acknowledgement of AI tools
➢ Submitting work with intentionally incomplete or misleading references or bibliographies

Malpractice sanctions available for the offences of *'making a false declaration of authenticity'* and *'plagiarism'* includes cessation of assessment and awarding a fail, prohibited from the opportunity to take further assessments, as well as advising others of the reasons for the fail, which can include notification to the regulator and third parties as appropriate.

Apprentices' marks may also be affected if they have relied on AI to complete an assessment and resulting resits or retakes may limit overall grades and where a further period of re-training is required and delay the apprenticeship programme completion.

Training Providers/Colleges/Centres

Training Providers/Colleges Centres will already have agreed policies and procedures relating to assessment in place to ensure the authenticity of assessments undertaken either on a formative basis during the apprenticeship on programme delivery, or for other qualifications they offer on their apprenticeship and other programmes. They must now ensure that these can also address the risks associated with AI misuse and as part of PAL's Centre and third party risk evaluation, PAL reserves the right to question registered Centres and Third parties how they are addressing the use of AI.

As the Training Providers and Colleges will in the majority of cases be Centres with other AOs, we would expect them to adhere to requirements for being an approved 'centre' with these organisations. PAL expects our third parties (training providers and colleges to have appropriate arrangements in place to minimise the likelihood of malpractice and to have clear guidance about the validity, authenticity, currency, and sufficiency of apprentices' evidence, notably that evidence that underpins or supports any aspect of the end-point assessment process. PAL also expects that Providers and Colleges will advise their employer community of the authenticity requirements and PAL encourages all of our stakeholders to review the guidance and resources we provide, which includes access to PAL's relevant policies.

PAL as an EPAO has a regulatory responsibility to ensure the integrity of end-point assessments we undertake and ensure our personnel, processes, and policies are fit for purpose and reflect the current learning and work environments. Failing to recognise the existence and deployment of AI, would be a dereliction of our duties, and as the guidance notes, AI can be a useful learning tool.

The issues AI presents to an EPAO is where its use could overstate an apprentice's capability and as such an apprenticeship certificate may be falsely awarded, as the work utilised to support a competency judgement, is not that of the individual apprentice.

As part of PAL's approach to delivering a fair, safe and reliable assessment we seek to do the following:

a) Explain the importance of apprentices submitting their own independent work (a result of their own efforts) and ensure that PAL assessors and the quality team make use of appropriate plagiarism checkers and report any concerns of suspected or actual malpractice for the sake of this guidance, specifically relating to AI

b) Regularly review our AI guidance, PAL's Maladministration and Malpractice and Plagiarism and Cheating policies to ensure the information is current in line with AI capabilities and correlates to regulatory guidance and conditions

c) Provide AI briefings to all PAL personnel involved in assessment development and deliver

d) Make clear the sanctions/penalties of using AI inappropriately, or not declaring where and how it has been used

e) Ensure PAL personnel are familiar with AI tools and its capabilities

f) Continue to request apprentices' confirm authenticity of work

g) Continue to advise all relevant stakeholders of PAL's regulatory duties to report to other parties cases of malpractice

h) Ensure PAL provides guidance regarding how to acknowledge the work of others to include the use of AI

i) Confirm and check with third parties and Centres have appropriate policies and procedures in place to identify and counter acts of plagiarism and cheating, with specific reference to how AI can be safely and fairly utilisied by Apprentices

Acknowledging the Use of AI

It remains essential that apprentices are clear about the importance of referencing the sources they have used when producing work for an assessment, and that they know how to do this. Appropriate referencing is key to maintaining the integrity of assessments. If an apprentice uses an AI tool which provides details of the sources it has used in generating content, these sources must be verified by the apprentice and referenced in their work in the normal way. Where an AI tool does not provide such details, apprentices should ensure that they independently verify the AI-generated content – and then reference the sources they have used.

In addition to the above, where apprentices use AI, they must acknowledge its use and show clearly how they have used it. This allows Independent Assessors to review how AI has been used and whether that use was appropriate in the context of the particular assessment. **This is particularly important given that AI-generated content is not subject to the same academic scrutiny as other published sources.**

> **Where AI tools have been used as a source of information, a learner's acknowledgement must show the name of the AI source used and should show the date the content was generated.**
> **For example: ChatGPT 3.5 (https://openai.com/ blog/chatgpt/), 25/01/2023.**

The apprentice must, retain a copy of the question(s) and computer-generated content for reference and authentication purposes, in a non- editable format (such as a screenshot) and provide a brief explanation of how it has been used. **This must be submitted with the assessment evidence it relates to,** so the Independent Assessor or member of the quality team are able to review the work, the AI-generated content and how it has been used. Where this is not submitted, and the Independent Assessor or a member of the PAL quality team suspects that the apprentice has used AI tools, the Independent Assessor in conjunction with a member of the quality team will need to consult PAL's Maladministration and Malpractice and Plagiarism and Cheating policies, along with this guidance for appropriate next steps and should take action to assure themselves the origins and ownership of the evidence presented.

Identifying and checking written work

Written work can include reports, projects, presentations, portfolios, or where used responses to case studies. Checking the authenticity of written work can include the use of the following:

➢ A simple Google search for example using a sentence or 4-6 words from the submitted work
➢ Putting the work through recognised plagiarism checkers
➢ Comparing the use of language as used by the apprentice across assessment components
➢ Comparing individual assessment component outcomes of an apprentice, to look at any significant variances
➢ Comparing submitted work from apprentices being assessed on the same standard, or enrolled with the same training provider or working for the same employer organisation

There are also computer detection tools to identify potential AI misuse. AI chatbots, as large language models, produce content by 'guessing' the most likely next word in a sequence. This means that AI-generated content uses the most common combinations of words, unlike humans who use a variety of words in their normal writing.

Several programs and services use this difference to statistically analyse written content and determine the likelihood that it was produced by AI:

- OpenAI Classifier (https://openai.com/blog/new-ai-classifier-forindicating-aiwritten-text/)
- GPTZero (https://gptzero.me/)
- The Giant Language Model Test Room (GLTR) (http://gltr.io/dist/)
- Turnitin Originality (https://www.turnitin.com/products/originality)

A teacher and/or trainer who suspects plagiarism in course work may conduct an oral assessment to assess whether the work is that of the apprentice, and in some cases the work in question could be removed and replaced by alternative work, that is known to be that of the apprentice, or undertake an additional comparable assessment in controlled conditions, if this was an option for the centre.

In the context of end-point assessment this is not a valid or practical solution, so where plagiarism is determined, the sanctions as previously described will be considered and applied. If any plagiarism investigation is inconclusive, the PAL quality assurance process will review the results and outcomes of all the assessment components to identify any significant anomalies between the assessments. Additionally, they may look to gain validation of an apprentice's work from the apprentice's employer and /or Trainer. Where any of these interventions give cause for concern, the assessor will mark and grade the work accordingly and the PAL Quality Manager can request the evidence is subject to further moderation before a result is awarded.

Teachers and trainers need to be aware that all uses of translation websites and applications, such as **Google Translate**, by learners, to translate speech and written text and then include the translation in all types of written work, will be identified as being **AI-generated** by AI-writing detection software such as **Turnitin**.

As a result, assessors will have no choice but to conclude that learner work translated by software is AI-generated and therefore not entirely the learner's own work and amounting to an attempt to **plagiarise** and cheat. Hence, the use of translation applications is not recommended.

PAL Centres are reminded that PAL's apprenticeships and qualifications are assessed in the **English Language** (except where British Sign Language or braille reasonable adjustments are applied) and please note that PAL are regulated by Ofqual, the regulator for qualifications in England.

Guidance on General referencing

This guide is specifically for AI and has detailed how AI use should be referenced. This section provides guidance on referencing other sources of information. PAL, when reviewing written work and referencing, does take into consideration the level of the apprenticeship standard.

- A reference in the text, or as a footnote, should show at least the name of the author, the year of publication and the page number: For example: (De La Bedoyere, 2021, p. 89.)
- Candidates must also include a bibliography at the end of their work, which lists details of publications that have been used to research their project. For example:
    - De La Bedoyere, G. (2021) Gladius, London: Weidenfeld & Nicolson.
- For material taken from web pages, the reference must show the precise web page, not the search engine used to locate it. This can be copied from the address line. For example: (https://www.bbc.co.uk/bitesize/
- topics/zwmpfg8/articles/z2sm6sg).
- For individual works found on the internet, the reference should show the details as in the first bullet point, above, plus the URL and the date accessed. For example:

o   Regulski, I (2023). Page turners: literature in ancient. Available:
    https://www.britishmuseum.org/blog/page-turnersliterature-ancient-Egypt [26 April 2023].

Bibliography, resources and recommended browsing

J Barrie Thompson and Simon Stobart: University Research, Plagiarism, and the Internet: Problems and Possible Solutions; Published in the proceedings of the Sixth International Conference ETHICOMP 2002; Lisbon: ISBN 972–839, pp607–710.

Oxford University Department of Education: Guide to Referencing and Citations. Accessed: https://weblearn.ox.ac.uk/access/content/group/cd464c28-e981- 4dcc-af89-945b50a3ef48/Referencing%20and%20plagiarism/SHU Guide_ to_referencing%20NEW%20TO%20USE.pdf [7 August 2017].

Other useful sites are:

➢ https://www.ox.ac.uk/students/academic/guidance/skills/plagiarism
➢ http://virtualsalt.com/antiplag.htm
➢ http://www.plagiarism.org
➢ http://www.turnitinuk.co

For more detailed information please refer to PAL's learner guidance to referencing and plagiarism guidance.