

Why Testing?

Personnel testing, certification, and licensure are critical elements of a free society.

Without testing, how is a consumer to know the competence of a plumber, carpenter, dentist, or car repair person, especially when that consumer doesn't have the skills to evaluate the job?

Without testing, how is a small business owner to know the competence of a programmer, electrician, accountant, or web designer, especially when that owner doesn't have the skills to evaluate the job?

In monolithic societies, students may be assigned professions, regardless of talent or ambition.

In the U.S., people are free to choose their career and demonstrate their ability, determination, and perseverance by qualifying in a fair and objective way.

Testing opens doors to those who are new to a profession... who have no contacts in the employment fraternity ... and who aren't part of 'an old boy' network.

Testing serves a dual purpose – it certifies those with a specific level of skill, and it prescribes a path to competence for those who are new to the profession or who fail the test.

Without testing, going to a medical professional would be a crapshoot. And a nascent enterprise would be lucky if half of its new hires were able to perform on the job.

Testing is intrinsic to the smooth functioning of our complex and interdependent society.

Why Performance Testing?

Performance testing is the antidote to multiple-choice testing. Multiple-choice testing simply evaluates whether you have knowledge sufficient to choose the correct answer from several options. But in real life, the options are virtually limitless. In addition, multiple-choice testing maximizes the skills of logic, deduction, and inference, thus minimizing the role of generating an unprompted response.

Why Now?

In the past, it was extremely difficult to perform uniformly scored, reliably graded performance tests at scale.

During the late 1990s and early 2000s, as computers became more prevalent, programming languages provided feedback in the form of error messages and sometimes instructive text.

But now, several new developments dramatically expand the scope of performance testing. Some of these developments are include:

Maker 3D printing software has reduced in price and increased in sophistication that it can be used to construct physical models of many things to be evaluated, from molecules to turbines to machines.

Why Testing?

Objects that used to be difficult to store because of limited space can be constructed for use this week, melted down and the materials reused for different models next week.

VR Virtual reality and the Metaverse mean that virtually any environment can be constructed in any degree of reality for a person to function within. That functioning can ideally encompass learning and evaluation of new contexts, new versions of reality. It's a testing playground.

Internet Prior to the internet, these interactive treatments would have to be installed on your own or a shared computer. But with the internet accessible to virtually every household, learning and testing environments can be made available to everyone.

Audio The computer can interview examinees, listen to their answers, then transcribe and evaluate their responses. This is not in the future; this is now. And it doesn't require complex AI to generate or monitor these conversations. Finally, the computer doesn't pretend to be a human. Instead, it's clearly a computer just asking questions and taking responses.

Low Readability

Performance testing can be constructed to minimize readability level. The audio testing mentioned above is one example. But another example is a system admin test which simply presented a computer and gave the instruction, "Fix it." That's a complex item expressed with a very simple vocabulary.

Authentication

Cheating has been a gremlin for testing as long as multiple-choice tests have been around. But with voice authentication, biological markers, and video surround, cheating is more difficult for would-be perpetrators.

Remote Proctoring

Another development that has made online test administration available in numerous locations is remote proctoring. The authentication mentioned above, combined with virtual reality, has enhanced the variety and degree of simulation available for examinations.