

Patent Examination Board 2021 Examination Session Candidate Survey Report, January 2022

1. Introduction

This report consolidates candidate feedback for the Patent Examinations Board (PEB) 2021 Qualifying Examinations from 142 survey respondents.

Overall satisfaction with the examinations themselves and the fairness of the marking process was broadly in line with satisfaction levels from 2020, with 17% of candidates saying they are very confident in the process and 61% having some confidence.

In 2020, candidates were highly appreciative of the efforts made to run the exams online so that candidates were not forced to postpone a year. This year, there was continued appreciation for the efforts made by CIPA and the Patent Examinations Board and the opportunity to type the exams rather than hand write. One candidate remarked:

“It is absolutely delightful that we are embracing 21st century by allowing exams to be typed on computers”

A third of candidates said the ProctorExam system was good or very good, but a third said it was adequate, and a third said it was poor. Many candidates raised concerns in the comments sections of the survey, with the main issues being:

- The technical demands of ProctorExam were unreasonable, to the extent that the exam was no longer testing fitness to practice but candidates’ ability to manage the IT requirements.
- The online system made the exams more risky for candidates than traditional paper-based exams in case something went wrong with the technical arrangements. Managing the technical demands added a lot of stress to the (already stressful) exams. Candidates reported technical interruptions during the exams (for example the system shutting down and having to reload) which caused stress and wasted time. Candidates are very concerned that this will have affected their exam results.
- Guidance from PEB relating to the technical requirements was very long and sometimes unclear, which created anxiety as candidates had to worry about being disqualified if they had not complied, despite taking the exams in good faith without intending to cheat. PEB did not have capacity to provide the necessary technical support quickly to candidates.
- Some of the heavy burden of requirements to prevent ‘cheating’ could be avoided by making the exams open book.

“The most difficult part of the exam should be the exam itself and not the preparation/making the system work. We are not aiming to qualify in computer science, but in patent law!!!”

“Proctoring software is not fit for purpose. The time spent sorting phone connection problems for some candidates was unfair and added stress to an already very stressful situation.”

In addition to the problems associated with taking the exams online, candidates continued to raise concerns about the exam content including:

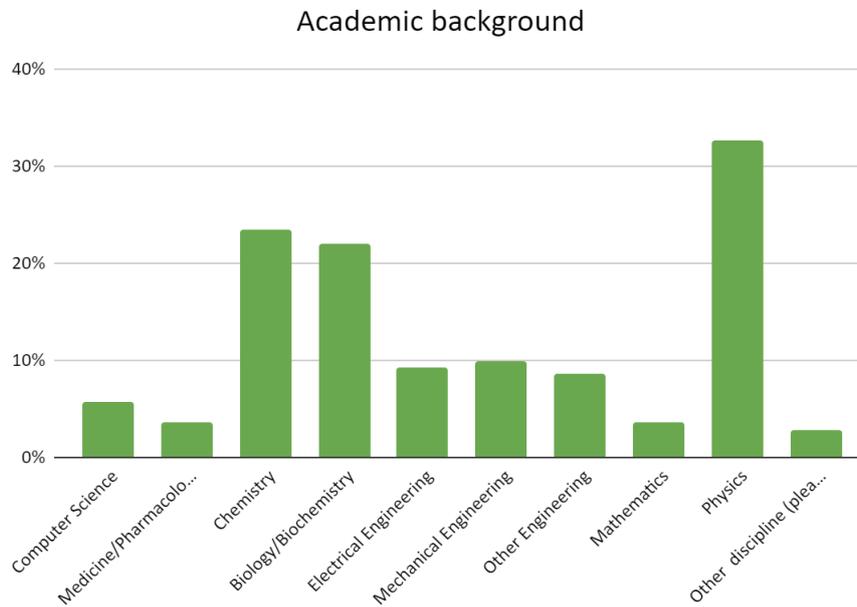
- Relevance of the exams in testing fitness to practice
- Unnecessarily vague and unclear questions
- Finding the right balance in marking flexibility and transparency in the mark schemes: some candidates find the mark scheme too rigid, given the possibility of good answers being provided that do not fit the scheme. On the other hand, some candidates are concerned that if too much of the marking is discretionary, this can create wide variation between markers and also a lack of transparency about how marks are awarded.
- Process still feels like too much of a 'lottery' - it is not clear which answers will be awarded marks, competent patent attorneys have to repeat the exams several times until they finally 'get lucky' one year
- Some candidates remarked that the appeals process is not fair or accessible.

Issues raised previously such as the requirement to memorise large amounts of material do not seem to be as much of a problem as in previous years, though several candidates recommend that the exams be open book, because in 'real life' patent attorneys would not need to memorise legal documents, but they would look them up.

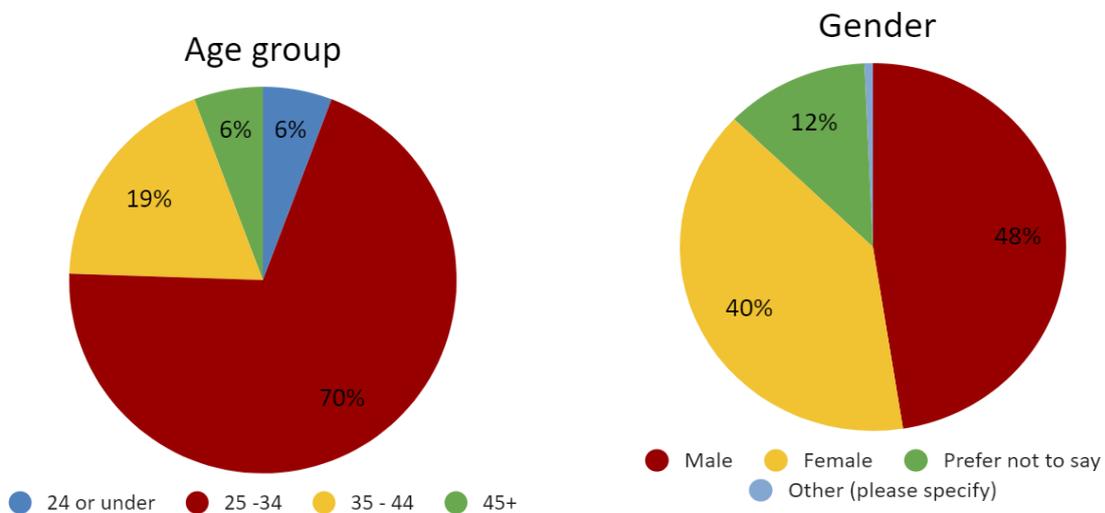
While nearly all candidates found the published guidance helpful, under a third of candidates (30%) said they did not find responses to email queries helpful. There were several complaints about communications from PEB (online and in person) and an apparently negative attitude from the PEB towards candidates.

2. Candidate Profiles

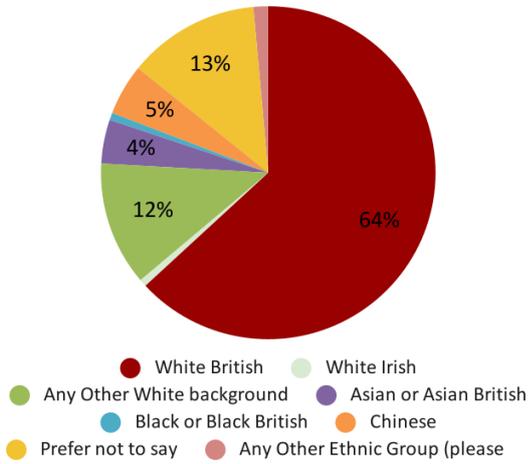
As in previous years, the majority of the candidates came from Physics, Chemistry and Biology/Biochemistry backgrounds. Other candidates came from Mechanical Engineering, Electrical Engineering, other Engineering, Computer science, Mathematics, Medicine and other disciplines.



Like last year, the majority of the candidates were aged between 25-34 (70%), male (48%) and white British (64%).



Ethnicity



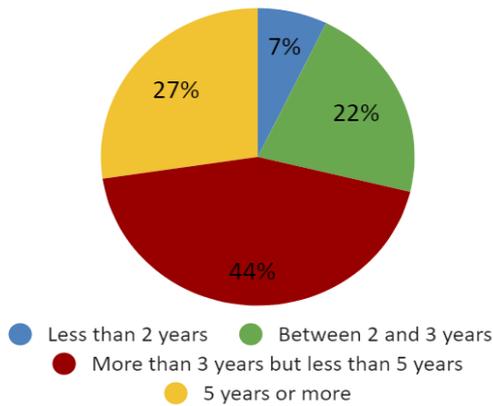
76% of the candidates are white British (white British, Irish or other) the same percentage as last year. The next most commonly selected category was “Prefer not to say”, selected by 13% of the candidates.

5% are Chinese, 4% are Asian or Asian British.

84% of the candidates speak English as their first language.

4% of the candidates have a disability, and 11% prefer not to say.

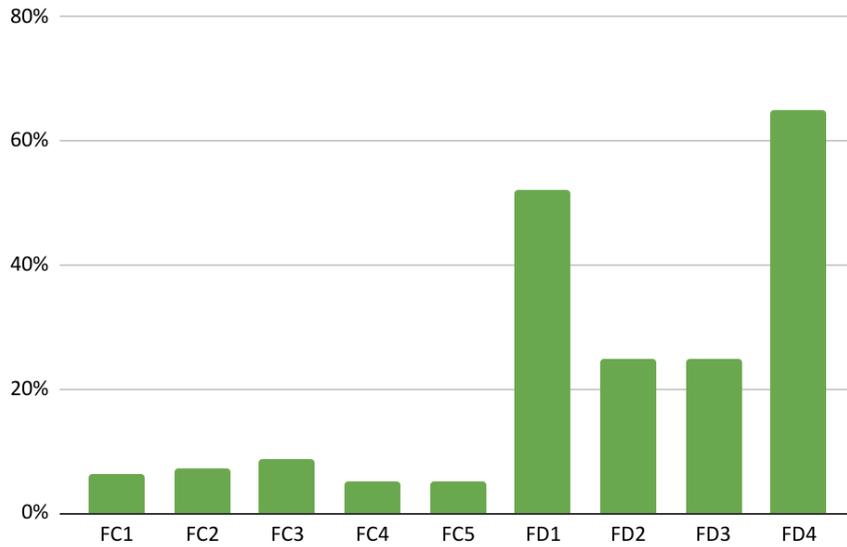
How long have you been working in Patent profession ?



This year nearly half of candidates (44%) have worked for between 3 and 5 years, 27% have more experience, 22% of candidates have worked between 2 and 3 years and 7% have less than 2 years experience.

3. Candidates' registration for exams

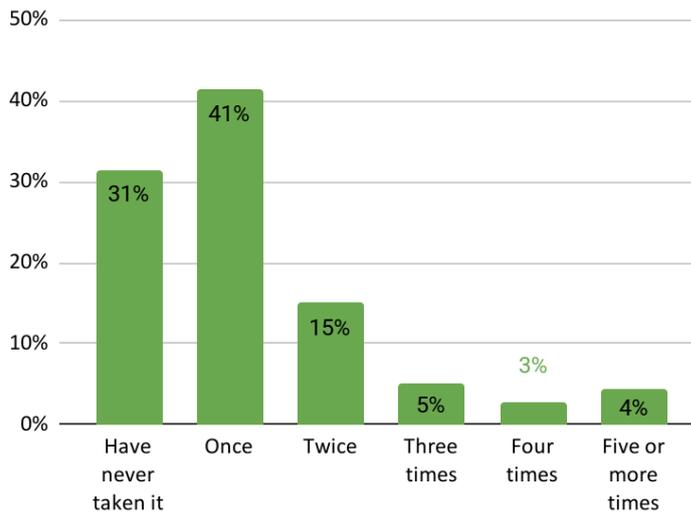
Which examination(s) did you take?



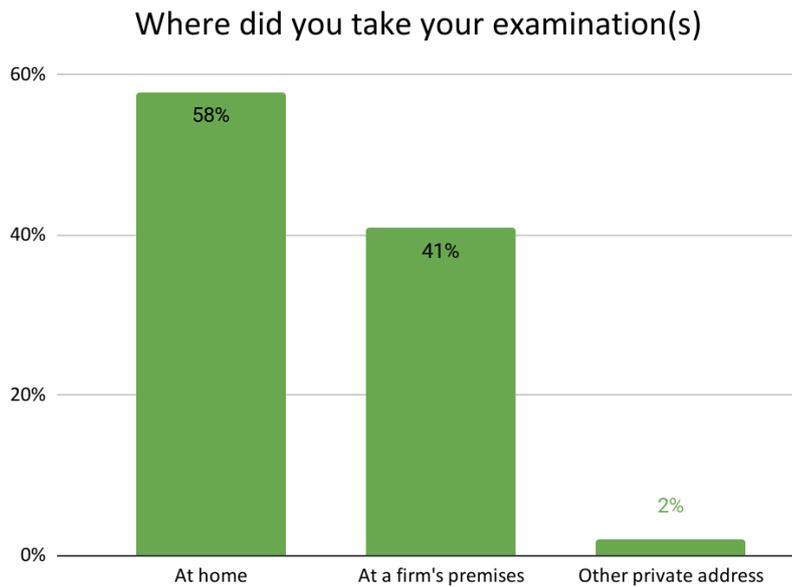
Over half (65%) of the candidates were taking FD4 exams.

52% of the candidates were taking FD1.

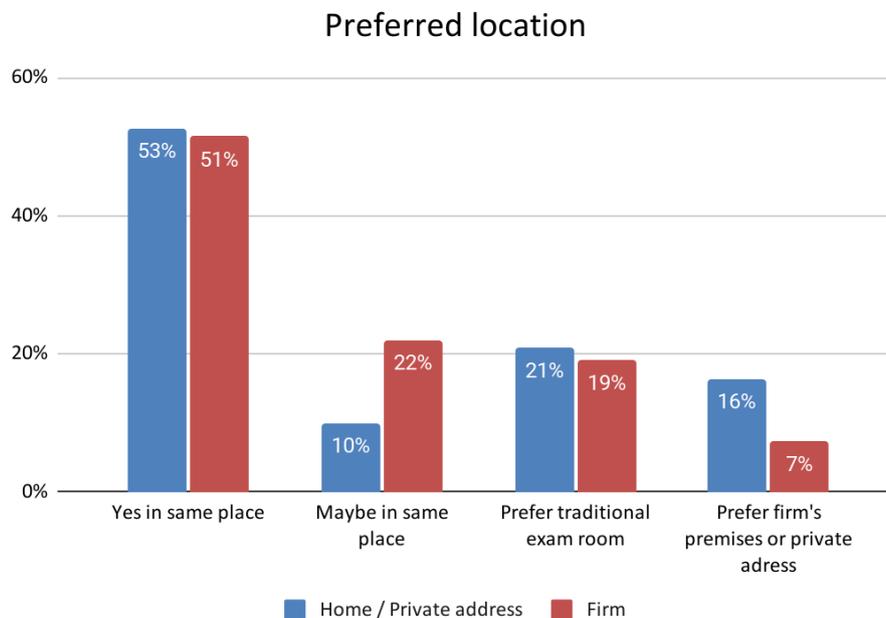
How many times have you taken the FD4 examination?



4. Candidates' examination locations



More than half of candidates (58%) took their exams at home in 2021, and 41% took their exams at their firms' premises. The chart below shows candidate preferences for future locations, based on where they took the exams in 2021. In 2020, the top preference was for taking exams at the firm's premises. In 2021, More than half of candidates were happy to repeat the location in future years, be it at home or at the firm, indicating some level of satisfaction with the online arrangements. A further 22% who took the exams at their firm would consider doing it there again. Candidates who took the exams at home or a private address showed a slight preference for doing it at their firm in future (16%) and around 20% of both groups would prefer a traditional exam room.



5. Ratings of the online examination systems

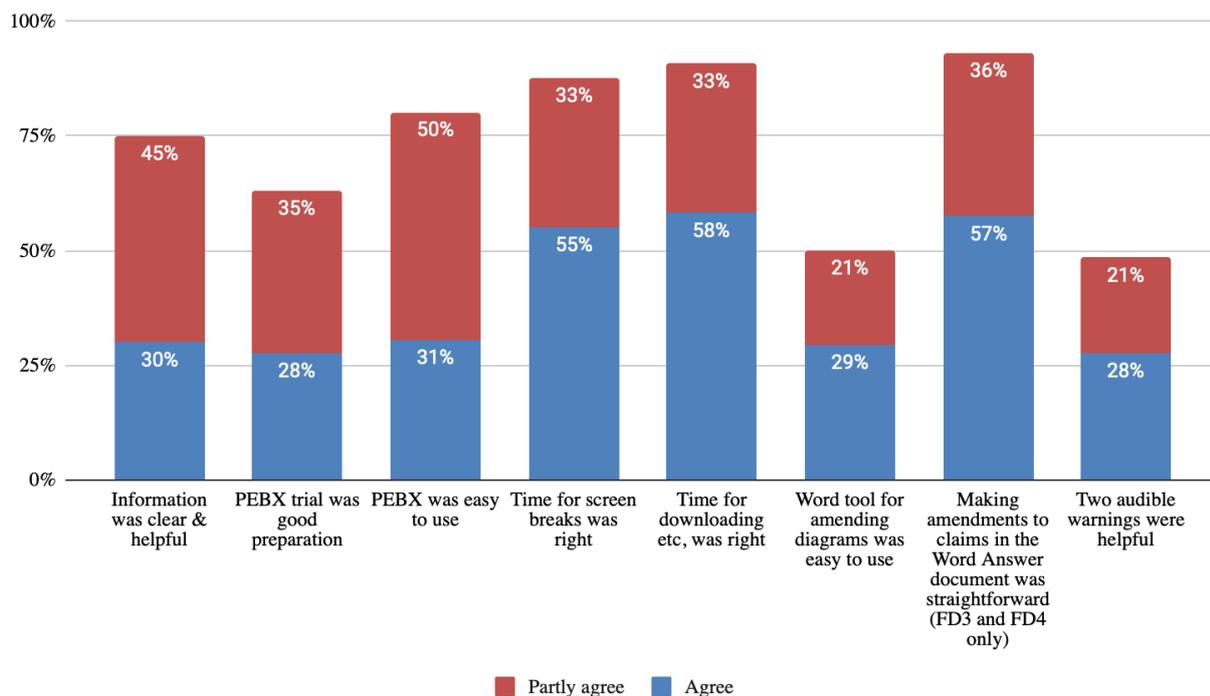
5.1 PEBX online examination system

The majority of candidates appeared at least partly satisfied with the functioning of the PEBX online exam system. 31% agreed that the PEBX system was easy to use and a further 50% partly agreed. Ratings were highest for the time for screen breaks and downloading, where over half fully agreed, and a third partly agreed. In addition, for those candidates who took the FD3 and FD4 papers, ratings were high for the ease of making amendments to claims in the word answer document.

There was less agreement that the trial was good preparation. Some candidates commented that it would have been helpful to test malfunctions with the system in the trial. It was felt that this would better prepare candidates for what might go wrong during the actual assessment.

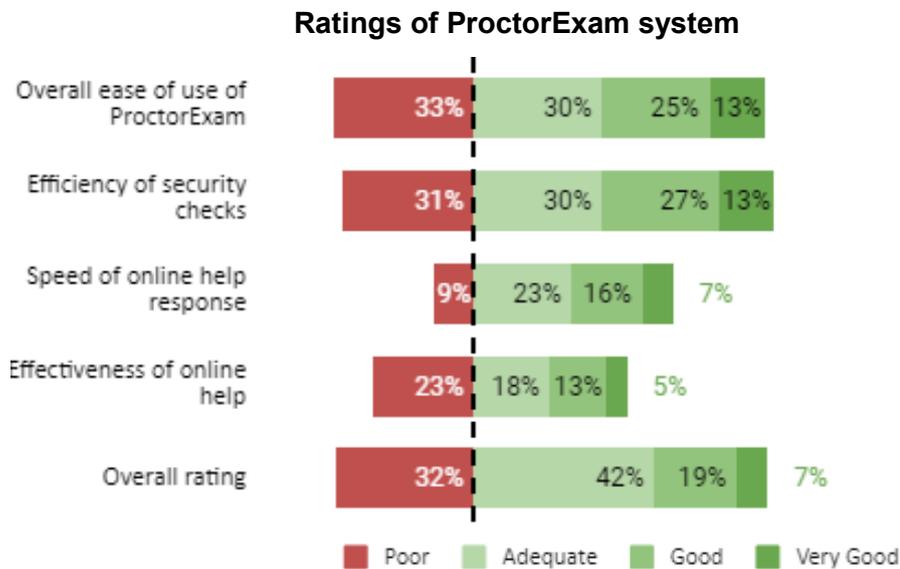
At the same time, less than half of candidates agreed or partly agreed that the Word tool for amending diagrams was easy to use. A similarly low rating was given for the question asking whether the audible warnings were helpful. Indeed, the survey contained a number of adverse comments from candidates about the audible warning system.

Evaluation of PEBX online examination system



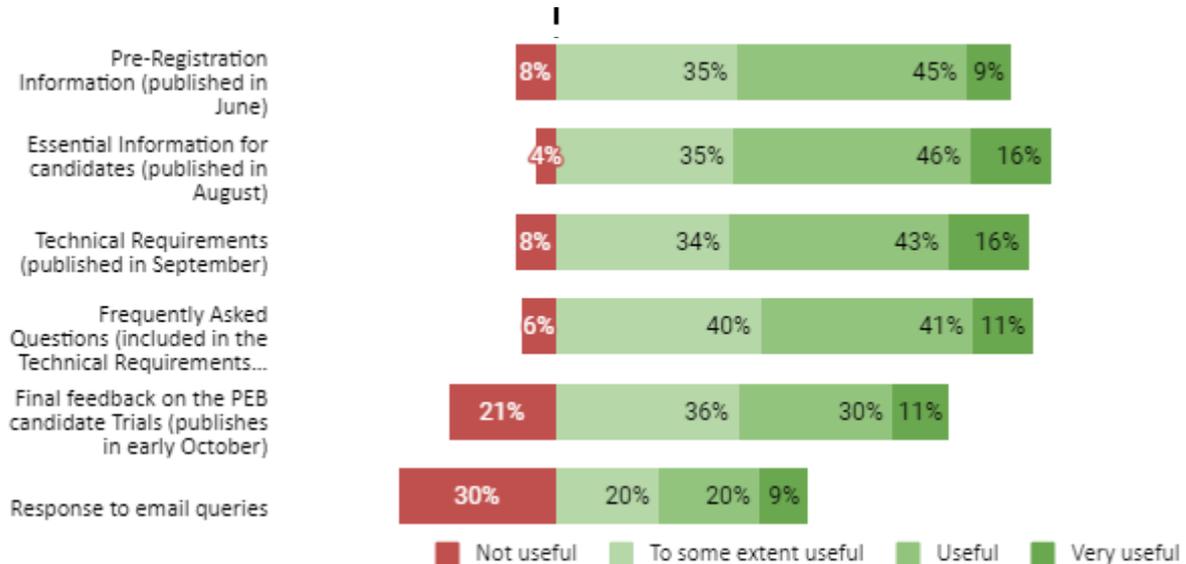
5.2 Ratings of the ProctorExam system

Overall, a third of candidates found the ProctorExam system good or very good, a third found it adequate, and a third found it poor, for reasons given in the comments section.



5.3 Ratings of the communication from PEB about the online examination

The majority of candidates found the materials from PEB useful, except with lower satisfaction for the final feedback on the trials.



The lowest rating was for responses to email queries. 30% of candidates said they did not find their responses to email queries useful, and this was also reflected in the comments throughout the survey, where several candidates remarked on the apparently negative attitude from the PEB towards candidates. Comments include:

“Email responses were very late and extremely rude”

“When I tried to contact via email to raise an issue I was responded to with blunt, indifferent and bordering on rude responses, as if I had the audacity to contact them whilst they were "running exams". Whilst I understand that the exam week must be a stressful time for those that run it, it is the service for which we pay to be supplied with, issues must be expected and dealing with them an accepted part of the role.”

“The tone that PEB takes with candidates is downright arrogant and self-righteous. PEB’s unwillingness to amicably help candidates with issues or problems that arise due to PEB’s desired way of carrying out the exams only adds to exam stresses. The pressures candidates are already under are further not helped by the often rude criticism of candidate answers in the mark schemes”.

5.4 Comments on the online examination systems

Positive comments included favourable comparisons to the EQE Wiseflow system:

“Very user-friendly interface and clear instructions. The trial session was critical in gauging connection speed and time needed to download/upload documents too.”

“Your system is excellent. I with the EQE's would use the same system instead of their terrible browser solution”

“Firstly PEBX and ProctorExam system are a great solution. Please do not switch to Wiseflow like the EQEs. Only difficulties I had were getting the camera to focus on the ID during the exam.”

However, the majority of comments related to the high levels of stress caused by the system, and the many technical difficulties which candidates experienced. Several candidates said they thought the system was significantly worse in 2021 than in 2020. The PEB did not have enough capacity to respond to candidates’ difficulties during the exam period, and candidates were still not sure how the technical issues will be considered in the marking.

There were also complaints about consistency of invigilation, clarity of guidelines, and unnecessarily strict measures to prevent cheating, with the burden of ensuring compliance transferred from invigilators to candidates, who are already under pressure taking the exam:

“The proctors I communicated with had no idea of the PEBX rules, for example they thought drinks were not allowed in the exam. The proctor app failed during my exam creating extra work and distraction from just getting on with the answers. The security seemed unnecessary, given you could go for unsupervised toilet breaks, having two cameras and scanning under the desk and the ceiling were just pointless theatre.”

“The proctor exam system having two cameras was unnecessary, especially for exams such as FD2/FD3/FD4 as it would be near impossible to cheat on these exams anyway. The use of an additional camera and the poor proctor exam system just placed more stress on candidates. Candidates are expected, under this new system, to be constantly monitoring their IT equipment for the fear of being disqualified.”

“We all understand this has not been an easy transition for PEB and a lot of work has gone into these exams going ahead online, we all appreciate it. However, PEB should in turn understand the difficulty of preparing for these exams, the sacrifice to their family and friends a candidate has to make to study and be ready for these exams, and the severity of failing them to a person’s career and mental health. PEB should not add extra burden or bring in more severe policies than if a candidate was taking these exams in an exam room with invigilators, when there is already extra burden on the candidate in the form of the technical requirements and unexpected issues which can cause anxiety by taking these exams online”

The full candidate feedback attached with the survey report includes all the technical issues experienced by candidates. These included phones disconnecting and having to re-login to the system, difficulties balancing a phone camera while charging it (as the system drained the battery quickly), the system ‘going to sleep’ but no audible warnings being issued, overheating laptop due to streaming, delays in the papers becoming available, and difficulties downloading and uploading.

“In all, dealing with the ProctorExam system was an added burden in an already highly pressured and stressful situation. I do not know of a single person for whom the system worked perfectly - this includes people across different firms. This suggests to me that the ProctorExam system is not at all fit for purpose.”

“I never heard the audible warnings even though I took [time] to “wake up” the page. I really think the candidates should focus on getting their answers down and not have to worry about whether their camera got disconnected or whether the audible warning will be given.”

Candidates were (naturally) concerned about complying with the regulations to avoid being disqualified, which was an additional pressure not experienced with traditional exam halls:

“It’s not an insubstantial burden to have to comply with 26 pages of instructional / informational documents or else face a potential malpractice investigation.”

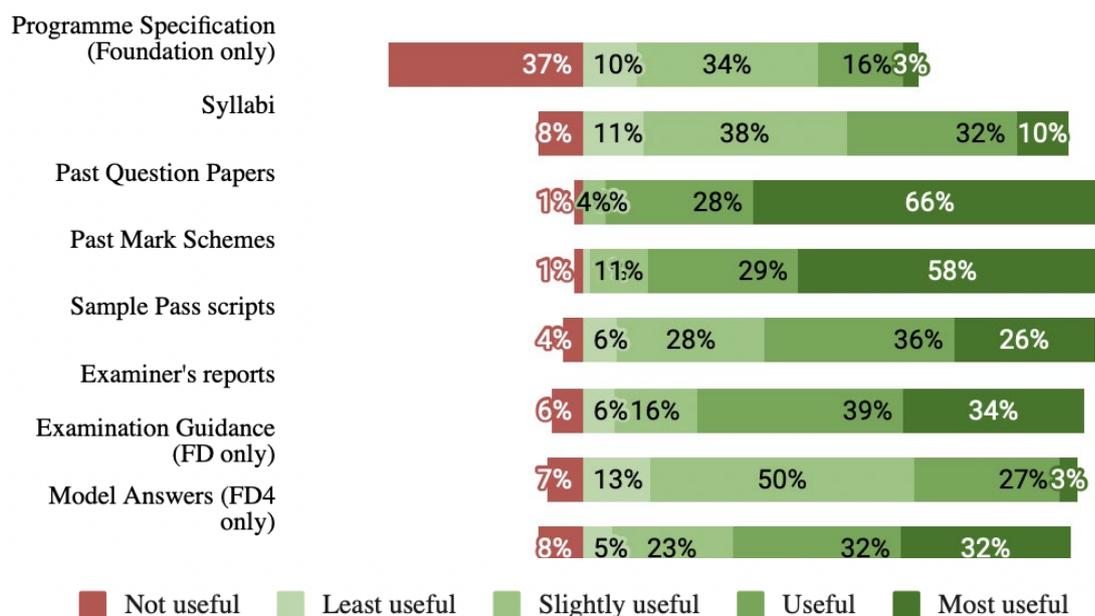
“The proctoring system was unnecessarily difficult to set up and prone to error. It would be extremely difficult to cheat on these exams, so it is also rather insulting that a single webcam was considered insufficient this year. The phone camera was very liable to fall over or disconnect, especially as it was required to be charging (and so have a cable extend from it, which made it unsteady) as the system drained the phone battery very quickly. A lot of people I know had technical problems, which added unnecessary stress to the exams. Candidates spend months preparing for the exams and they are very important to careers (and of course expensive to sit), and it is very frustrating to be tripped up by technical issues which are not the fault of the candidate. A system of sitting exams with in-person invigilation would be preferable - it is secure and any problems can be dealt with swiftly and easily.”

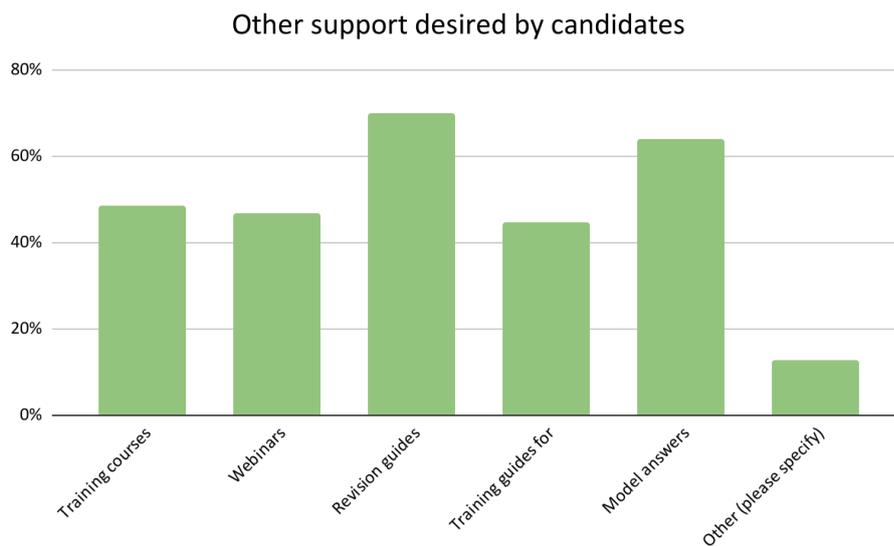
“The uncertainty of what will lead to a disqualification due to any ProctorExam issues is my biggest concern with the exams this year. I have *never* been concerned about any of my conduct in any other exam being taken as a reason for disqualification and, like all trainees, I have sat many, many exams. I had issues with my second camera recording and no audible warnings during the exam. I’m concerned that despite all my prep, hard work, participation in trials and doing everything I felt I could do to make sure I was being properly invigilated, that the disconnection/positioning issue with my second device will be used as a reason to disqualify me. It feels like a strange thing to be worried about, and the whole thing was so much more complicated than the zoom invigilation last year and EQE invigilation in 2021. I haven’t received any reassurances that this won’t happen, and so I guess I have to wait the whole five months to see if all my good work has gone to waste. It’s a bit too much to expect people to have to worry about this sort of thing. I understand that marking takes a long time, but it would be appreciated if you could address the outcomes of any invigilation issues as soon as possible. I appreciate that it’s not easy for the PEB, but this is serious stuff that really needs to be sorted.”

6. Usefulness of exam preparation materials

Candidates were asked to rate the usefulness of materials provided to help them prepare for the exams. Most useful were the past question papers and mark schemes, followed by the examiners’ reports, model answers and sample pass scripts. Candidates found the Programme Specification the least useful of the exam preparation materials.

Rank the usefulness of published PEB support materials





Candidates most desired revision guides and model answers. Around half of candidates would like more training courses and webinars.

were made by candidates:

Several suggestions

- Books or websites with practice questions and models answers like those provided by Delta Patents or the EPO for the EQEs.
- Revision groups facilitated by CIPA
- There are no courses to help with candidate's being able to understand unclear questions as these tend to be unpredictable. If the PEB could publish a book of questions that are as poorly written and confusing as the paper itself, then that could be useful for preparation.
- The model answer was a great resource, until it was announced that this is essentially not possible during the exam timeframe. In my opinion, one should be able to achieve 100% in the timeframe of the exam. Please adjust the exam accordingly so that this is achievable.
- A model answer that has enough detail to pass the paper - the current model answers are not realistic for a candidate to achieve in the time allowed.
- The key problem is that the support provided seems to be at odds with what the examiners are looking for. The support needs to be aligned with what the examiners are looking for.
- Guidance/webinars from actual examiners on how they are assessing these exams and what is being looked for. Mark schemes are not sufficient.
- What marks we obtained in previous attempts
- Ask-a-tutor email address, where candidates could email questions (akin to drop-in clinic / tutorial sessions in Universities)
- I think the PEB/CIPA need to take a step back and completely re-evaluate. The premise of this question is flawed. The reality is that for many firms, qualifying in the UK is a matter of complete unimportance. It's not even required in order to represent clients before the UK IPO. Such firms do not want to spend time or resources on "training courses" for unnecessary examinations, less still do they themselves wish to receive training in order to be able to train others better (mostly because they have no intention of providing training to start with). Put simply, the difficulty of the UK

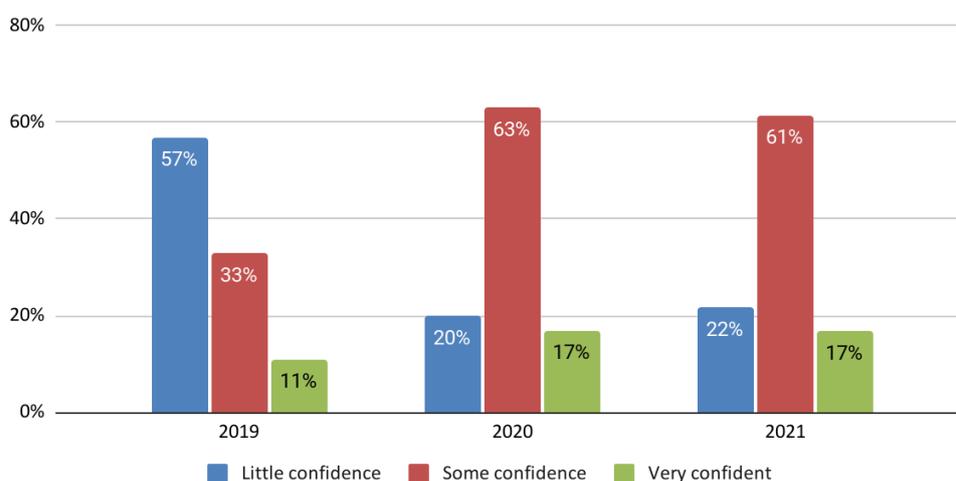
qualifying examinations should be revised to a level more befitting their importance rather than being obscurely difficult comparative to the EQEs.

- Tutorials- no one in my firm is confident teaching technique for FD4
- PEB needs to be open and honest with candidates, and have an appeals process that it fit for purpose (not the garbage that it has now).
- Past paper answers – removing them would be a step backwards
- proper revision materials, with ample questions to practice. As someone who sat FD1 several times, I simply do not have any material to practice on.
- The study guide to the patents act is very useful, equivalent guides to other modules would be useful.

7. Overall Confidence in the PEB examination process

Overall confidence in the fairness of the PEB exams procedure remains broadly consistent with results from 2020. 17% are very confident that the process leads to fair outcomes, the majority (61%) have some confidence, and just under a quarter (22%) have little confidence.

Trends of confidence that the PEB exam process leads to fair outcomes



For those satisfied that the outcomes are fair, candidates noted the checks and balances in place. Comments included:

“The double marking and automatic checks on close results or when there is large diversion between markers is encouraging.”

“There appears to be several levels where 'unfairness' can be identified and an appeals procedure to deal with anything that gets through.”

For those who considered the process to be unfair, many of the comments focused on the rigidity of mark schemes, given the open nature of the questions:

“Vague and non-specific questions should not be marked on rigid mark schemes. Each candidate will have a different pool of experience to draw from, and therefore different points of law/and or points of advice will be more or less relevant based on that experience. Using rigid mark schemes results in candidates having no choice other than to mark spot and attempt to cover every possible area in order to pass, rather than focus on providing a thorough answer based on the points they consider most important.”

However, others felt that the level of discretion of individual markers was a reason to doubt the fairness of the system, not least because in some cases this leads to wide variation in marks between examiners:

“Every course I have been on and every patent attorney I have spoken with indicates that markers are given significant discretion in marking. It seems it is not simply about the accumulation of marks, but whether they consider you are fit to practice based on a 5+ hr rushed answer. The candidates paper is provided but it does not show where the marks were awarded? This lack of transparency is worrying.”

“Unreliability between examiners - the disparity between marks given by examiners sometimes can be massive. This shouldn't be happening.”

Clearly there is a difficult balance to be struck between markers' discretion on the one hand, and transparency and consistency in the system.

Concerns about the difficulty and relevance of the FD4 exam were also highlighted, as in previous years:

“FD4 is an exam which is not testing a Trainee Attorney's fitness to practice. There is a huge amount of luck involved as to what invention comes up on the day and how well the individual candidate understands that invention. It is far too tight on time for all of the detailed analysis that needs to be done... The paper has a terrible reputation for being stupidly difficult, and a paper that a candidate has to just keep attempting until they drop lucky one year. It is holding back perfectly good and able candidates from qualifying. It seems that there is a 'right' way of construing the claims in order to unravel the puzzle and get to the result that the writer of the paper thinks is correct. In reality, claims are open to interpretation, and the exam should allow for this. PEB seems to like to blame the candidates and suggest that they aren't capable or preparing well enough. However, the IP profession is full of intelligent, hard working, studious, and motivated people, and it is suggested that PEB looks into the exam that it is setting each year for FD4, rather than blaming the low pass rate on candidates.”

Candidates also commented that the questions were particularly unclear this year:

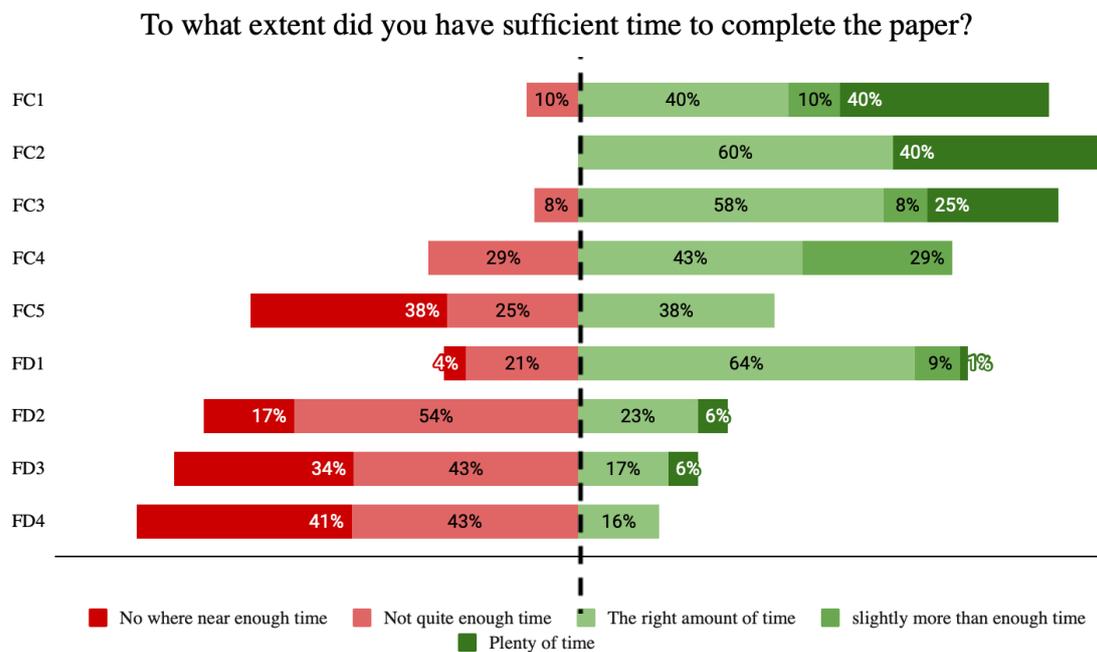
“Why not test candidates on the law and subject matter instead of testing candidates on their ability to decipher intentionally confusing, and poorly written questions?”

“Unfortunately, candidate perceptions of PEB are ever decreasing, and the responses by the PEB only ever appear to accelerate this. The best approach, at this stage, would be to take PEB back under CIPA for management, rather than the current faux-independence, to

ensure that quality is actually delivered, as opposed to the current unacceptable trainwreck which PEB produce each year and tell candidates to be grateful for. Absolute gaslighting at its worst, and horribly contemptuous behaviour from PEB toward candidates.”

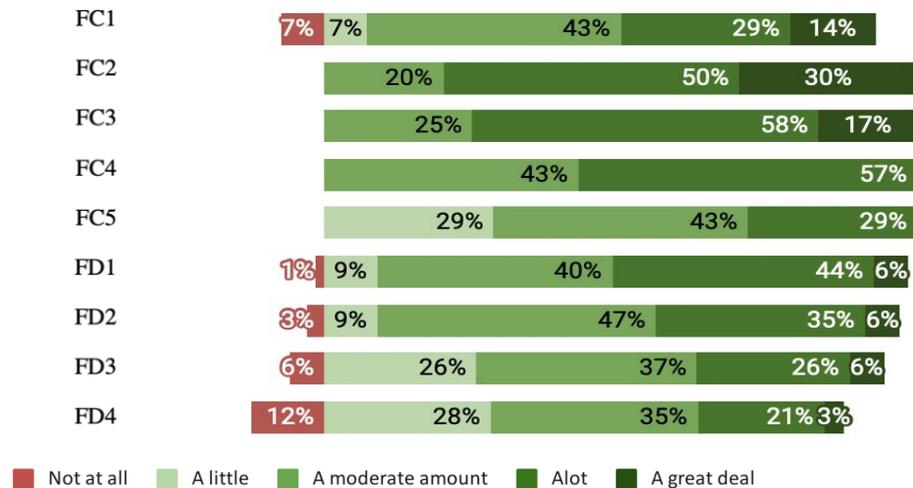
8 Satisfaction ratings for individual exams

Candidates were asked to rate each exam as to the extent to which it gave them an opportunity to demonstrate knowledge and whether there was sufficient time to complete the paper. As in previous years, the foundation papers (FC1 - 4) were rated highest in terms of sufficient time and the opportunity to demonstrate knowledge and understanding. FC5 was more time pressured this year, though the small number of candidates should be noted for this question¹. FD3 and FD4 exams were found to be very time pressured, with a third and under a half of candidates respectively saying there was nowhere near enough time, and under half saying there was not quite enough time. In particular, for FD4 less than 20% of candidates thought there was enough time allowed, with many of the comments in the survey focussing on this issue.



¹ 8 candidates responded to this question regarding the FC5 exam, of which 3 felt that there was nowhere near enough time

To what extent did the paper provide opportunity to demonstrate your knowledge and understanding ?



FC2 scored the highest in terms of opportunity to demonstrate knowledge and understanding, with 30% of candidates saying 'a great deal' and 50% saying 'a lot'. FC3 was similarly positive with 75% of candidates saying a great deal or a lot. FC1 and FC4 were lower rated, with nearly half saying it only gave a moderate amount of opportunity to demonstrate knowledge and understanding. Lowest rated of the foundation papers was the FC5 paper, for which nearly two thirds thought it gave only 'a little' or 'a moderate amount' of opportunity to demonstrate knowledge.

As is well known from the candidates' comments, satisfaction is lowest with the FD4 exam. 12% of candidates felt that it didn't give any opportunity to demonstrate their knowledge and understanding, and 28% said only a little. FD3 was similarly lowly rated, with a third of candidates saying 'not at all' or only 'a little' opportunity to demonstrate their knowledge. The time pressure is one factor in preventing candidates demonstrating their knowledge, and many candidates highlight that this is not a good test of fitness of practice.

"FD4 as an exam suffers from, and seems to have always suffered from, immense time pressure. The type of work undertaken in FD4, in practice is almost never performed with such limited time or immediacy. What is the exam if not a test of our fitness to practice."

Many candidates complained about the unclear questions in the papers, including:

"The FD1 paper is not hard or complex because it is testing. The FD1 paper is hard and complex because the questions are unclearly and poorly written. Once the paper is made available online, we will be able to provide a full analysis of the poor expression, language and terms used in the paper that ask the question: "Why is the PEB intentionally misleading candidates with unclear questions?" and "What process does each paper and question go through such that it is approved?" and "Who approves the paper and the language and phrasing of the questions?" and "How is the language and phrasing of the questions regulated?".

There were far fewer comments this year about excessive requirements to memorise material, a move which was presumably welcomed by candidates, though it did confuse one candidate who had expected similar papers from previous years:

“For FC1, I learnt a lot of the law and felt like there weren’t as many questions where you had to demonstrate what you had memorised. For example, the question about an abstract and the question about the perpetual motion machine, although I’d seen them in past papers, I felt unprepared for those in section A because they require more application of the law which is typically found in section B where section A is normally a regurgitation of the patents act.”

A concern raised by a few candidates was that the exams are still biased towards physics / engineering backgrounds:

“I cannot stress this enough, but please make the subject matter accessible for ALL candidates. The recent Mercer Review strongly advised this. Further, it was clearly obvious from the 2020 PEB candidate survey that life sciences/chemistry candidates felt that they were at a disadvantage, yet the paper format this year and subject matter was substantially the same.

While I appreciate there has been a shift in FD4 papers to be shorter in length, there has been a notable shift in subject matter towards mechanical devices with now more reliance on an understanding of diagrammatic representations of the invention. This makes the question paper harder and less accessible for people who work in life sciences and chemistry. For me and others, the paper format from 2013-2019 was far preferable.

The focus of an Infringement and Validity paper should be on application of law, not an understanding of a mechanical device. If candidates are disadvantaged working out how the mechanical device works, because they work in a different sector, this is unfair and does not represent real life practice.”

9 Recommendations

Many recommendations were made by the candidates, and these are attached in the full candidate comments report. Key areas include:

- Continue to run the exams online with an improved or alternative proctoring system or return to in-person invigilation. The burden for compliance should not be increased for candidates, as this affects their exam performance. Many candidates felt that the ProctorExam system was not fit for purpose and should not be used again in 2022. Others felt it could be used if the problems experienced in 2021 are resolved.
- Remove the audible timer as it did not work for many candidates
- If exams are not online then continue to allow use of computers in future years
- Simplify the process and also the written guidance, so that candidates are not overwhelmed with information
- Improve consistency of invigilation
- Run complete mock trials, include technical hitches so candidates are prepared
- Make the exams more practical and relevant to fitness to practice
- Ensure that content considers all subject backgrounds not only physics / engineering
- Reduce the amount of content - there is far too much to do in the time, and testing ability to write fast is not testing the core skills required of a patent attorney. (It should be noted that this was really only an issue for FD4)
- Make the exams open book
- Issues with editing the documents and formatting need to be addressed
- Fundamentally review FD4 as it is still not 'fit for purpose' - too many competent patent attorneys are not passing the exam and it still feels like too much of a lottery.
- Candidates are not satisfied that PEB is listening to candidate feedback, but rather is defensive and blaming candidates for poor performance.
- Improve transparency in the marking while maintaining appropriate flexibility and discretion to accommodate good answers not included in the mark scheme
- Release results earlier
- Improve the appeals process in response to candidate feedback

10 Summary

Overall the majority of candidates were partly satisfied with the exams, and some were very satisfied. Others feel the exam system (and especially FD4) is not fit for purpose and needs a complete overhaul. Concerns about technical problems with the ProctorExam system dominated the feedback, as did the issues of unrealistic amounts of material to cover in the time, relevance of the exams to fitness to practice, and consistency of marking.

Communications with PEB were also highlighted as a concern.