

Conducting online examinations during COVID-19

Interview with Sabine Kolvenbach from [Fraunhofer FIT](#) and Dorothea Kugelmeier from [Fraunhofer Personnel Certification Authority](#)

Sabine Kolvenbach asked Dorothea Kugelmeier several questions about the impact of COVID-19 on the business processes and how the Fraunhofer Personnel Certification Authority continues certification by doing online exams.

Sabine Kolvenbach is a senior researcher from Fraunhofer FIT and project partner in the European project [DEL4ALL](#) – Digital Enhanced Education for All.

Dorothea Kugelmeier is the head of the Fraunhofer Personnel Certification Authority since 2011. The Fraunhofer Personnel Certification Authority tests and certifies persons according to the ISO Standard 17024. This standard defines how personal certification bodies must operate to ensure the independence and impartiality of certification services. In order to formally prove that the certification processes are in accordance with ISO 17024, the Fraunhofer Personnel Certification Authority has been accredited by the German Accreditation Body (DAkKS) since 2016.

The CORONA pandemic has disrupted the business processes of many educational institutions around the globe. Also, your organisation has stopped its in-person activities, including training and certification exams.

What are the main challenges that the introduction of online examinations present to certification in your organization?

Dorothea Kugelmeier: “Throughout the past few years, we have dealt with the question of whether we can and want to offer online proctored exams. This for a variety of reasons. In particular, we wanted to make exams more efficient, that are not held at our main location near Bonn/ Sankt Augustin. Accordingly, we have dealt with this topic at regular intervals in recent years. However, until the Corona crisis, we repeatedly decided against an online solution, as on the one hand – from our point of view – the risk of deception by the participants was very high and on the other hand questions of security and privacy were not sufficiently solved with regard to the GDPR.

With the CORONA crisis we were then been obliged to look again at the different possibilities of online proctored exams. And we found that technologies have developed considerably in recent years, so that we decided - at first at least during the CORONA Crisis - to give participants the opportunity to take such exams. Here we have **met the following challenges:**

First of all, **finding a suitable technology** that - on the one hand - ensures that no attempts of deception are made and on the other hand observes the requirements of privacy and security. We also had to **change the examination procedure** and adapt it to the specifics of online proctored exams. Furthermore, it was particularly important to ensure that all **processes continued to comply with the GDPR and data security requirements.**

Additionally, some **examination procedures and type of questions had to be adapted to the new medium of online exams.**"

What are the main technical, organizational and legal requirements that you have to fulfil for online examination tools?

Dorothea Kugelmeier: "The main requirements for the tool were **ensuring that attempts at deception by the participants were ruled out, conformity with the GDPR** as well as **applicable standards for data security.**

Which means for example, that the data has to be stored on a German or at least European server. Additionally, we had requirements like **usable and simple handling** of the technology, **matching of the necessary process steps to our existing processes, ensuring that test data remain under the jurisdiction of the Fraunhofer Personnel Certification Authority.** And, of course, the **costs for all this should be as low as possible** for acquisition and operation of the system."

How did you implement the first online examination? And in particular, we are very interested in the experience you've had.

Dorothea Kugelmeier: "First of all I can say that we were generally very satisfied with the implementation of the first online proctored exams. In preparation for the first exam, we **worked very closely with the technology provider to conduct two trial runs with test users.** The experience we gained here not only helped our employees to get used to the changed procedures, but also to find out where the challenges for the participants might be and how we can prepare them accordingly for the - for them too new - situation of online examinations. Accordingly, we **prepared various materials for the participants before the first exam** and offered a kind of **preparatory exam before the actual exam.** The feedback of the participants on the first exam was very positive."

What can you do better next time?

Dorothea Kugelmeier: "On the one hand there is need to improve the processes, on the other hand the need to take the advantages of the software more efficient."

Which opportunities does the COVID-19 emergency present to the transformation of your core business processes and will the online exams still be available after COVID-19?

Dorothea Kugelmeier: "For us, online proctored exams are the only way to offer our examination services during the CORONA pandemic. Accordingly, we are very pleased that we have found a technology solution that meets our high standards. Even though we still see potential for optimization in terms of technology, the **advantages of online proctored exams have convinced us** to such an extent that we will probably **offer online proctored exams in parallel to conventional examinations, even beyond the COVID-19 restrictions.**"