

# Arab Board of Health Specializations

## Key Findings



Saved the time and cost to print and ship paper exams to testing centers



Utilized item-tagging to observe performance trends by category



Generated reports to improve assessment, training, and curriculum development

Faced with the limitations of paper-based assessment, the Arab Board of Health Specializations (ABHS) began searching for a more sustainable exam solution. The ABHS selected ExamSoft's digital assessment platform in early 2020 and has since realized benefits such as increased efficiency and global reach, as well as data-driven insights to drive continuous improvement.

## BACKGROUND

The Arab Board of Health Specializations (ABHS) is a scientific and professional body founded by the Council of Arab Health Ministers in 1978. The ABHS grants certificates of specialization to doctors from Arab countries through training programs and specialization exams.

The ABHS general secretariat is located in Damascus, Syria, and its headquarters is based in Amman, Jordan. The ABHS offers training and certification in over 50 specialties and subspecialties and administers specialization exams in 17 testing centers throughout countries in the Arab League. The ABHS delivers 80 to 90 computer-based examinations annually.

As of 2021, the ABHS has granted certificates of specialization to over 23,000 graduates in Arab countries.

Every exam that the ABHS delivers includes a written component and a clinical component. For decades, the ABHS administered the written component of these exams via paper and pencil to candidates in multiple countries. As the ABHS began to offer exams in additional specialties and subspecialties, the logistics of delivering paper-based exams became more challenging.



The Arab Board of Health Specializations

A major challenge that the paper-and-pencil assessment process presented was the time and cost of transporting the physical exams to the testing centers. With centers spanning thousands of miles across the Arab League, it was rather expensive for the ABHS to ship exams from its headquarters in Amman. Shipping these exams was not only costly, it also carried risks such as shipping delays, missing packages, or exposure of high-stakes exam material en route to the centers.

It became clear that the ABHS would require a more sustainable solution to deliver its written exams, especially as it grew to serve more candidates in various medical specialties.

In early 2020, ABHS General Secretary, Dr. Omar Al-Rawas with his academic team began to research alternatives to current assessment practices. As a proponent of digital transformation and its benefits for every aspect of the educational process, ABHS was interested in the options available for digital assessment. ABHS hoped that a computer-based testing software solution could help increase the flexibility and reach of written exams while also saving printing and shipping costs.

Exam security was a main driver in selecting a digital assessment solution for the ABHS. Given the high-stakes nature of the written specialty exams, the ABHS did not wish to assess candidates in a remote setting, even though the COVID-19 pandemic was forcing many exam providers to test remotely. It nevertheless remained a top priority for the ABHS to find a software solution that could deliver the flexibility and efficiency of digital assessment while continuing to administer secure, in-person exams — albeit with adjusted safety protocols.

Dr. Sabeeh Mashhadani and his colleagues in the assessment department considered several solutions for

“Even before COVID-19, it was difficult for us to perform our examinations.”



Dr. Omar Al-Rawas  
General Secretary of  
the ABHS

digital assessment before selecting ExamSoft. The software would allow the ABHS to deliver exams via lab computers in each of its testing centers, and the complete device control feature would help to preserve the integrity of these exam sessions. This feature blocks access to the internet and any external applications while exams are in session and disables screen capture to prevent the distribution of exam content. While the onset of the pandemic resulted in delays to the examination schedule, the ABHS immediately began planning the ExamSoft rollout.

Once the ABHS made the decision to adopt this new assessment solution, ExamSoft representatives provided introductory training sessions within the assessment department. As key ExamSoft administrator, Dr. Sabeeh continued to provide support as needed until his team was fully trained and ready to complete their tasks independently. The assessment department still maintains close contact with exam administrators to assist with any questions that arise.

The ABHS assessment department houses an examination committee — composed of medical educators and employees within the Council of Arab Health Ministers — which is responsible for authoring each specialty exam. Dr. Sabeeh trained each group within the committee to upload exam items into ExamSoft, where they are stored in a digital item bank dedicated to each exam specialty. From there, committee members use ExamSoft's item-tagging feature to tie each exam item to relevant medical categories.

The assessment department is responsible for coordinating the setup of each specialty exam, such as scheduling the session, setting the time window for exam downloads and uploads, assigning candidates to each exam, and activating complete device control. Though the ABHS delivers these exams in multiple testing centers throughout the year, Dr. Sabeeh can perform these administrative tasks remotely using ExamSoft's centralized portal.

In preparation for exam day, the ABHS appointed two personnel for each testing center to oversee exam sessions and troubleshoot any technical issues. Except for three testing centers, where candidates currently bring their own devices to test, all centers have lab computers prepped with the latest version of ExamSoft. To improve the exam experience, the ABHS activates features such as backward navigation and missing item alerts so candidates can revisit questions as necessary. The ABHS also shuffles the sequence of exam questions and answers to help further safeguard exam content.



## Exam Efficiency and Global Reach

With ExamSoft, the ABHS successfully transitioned the 80+ paper-and-pencil exams it delivers each year to a secure digital assessment platform. Among the benefits of the switch, the ABHS has increased the efficiency and reach of its exams, all while gaining valuable data insights to improve training, curricular development, and assessment.

- Adopting digital assessment has led to substantial cost savings. **The ABHS has saved a significant amount in expenses** associated with printing and shipping paper-based exams to 17 testing centers across multiple countries.
- The improved logistics of digital assessment has helped the ABHS to accommodate more candidates. **In 2021, the ABHS served over 7,000 candidates, for a year-over-year increase of 50%.**
- As testing center personnel become more familiar with digital assessment, the exam process is becoming more streamlined. **As of March 2022, the ABHS has experienced zero errors on exam day, and all exam uploads have been submitted successfully.**



"We spent a considerable amount of money on printed papers and shipping costs for our exams annually. We now spend much less for a more efficient job."

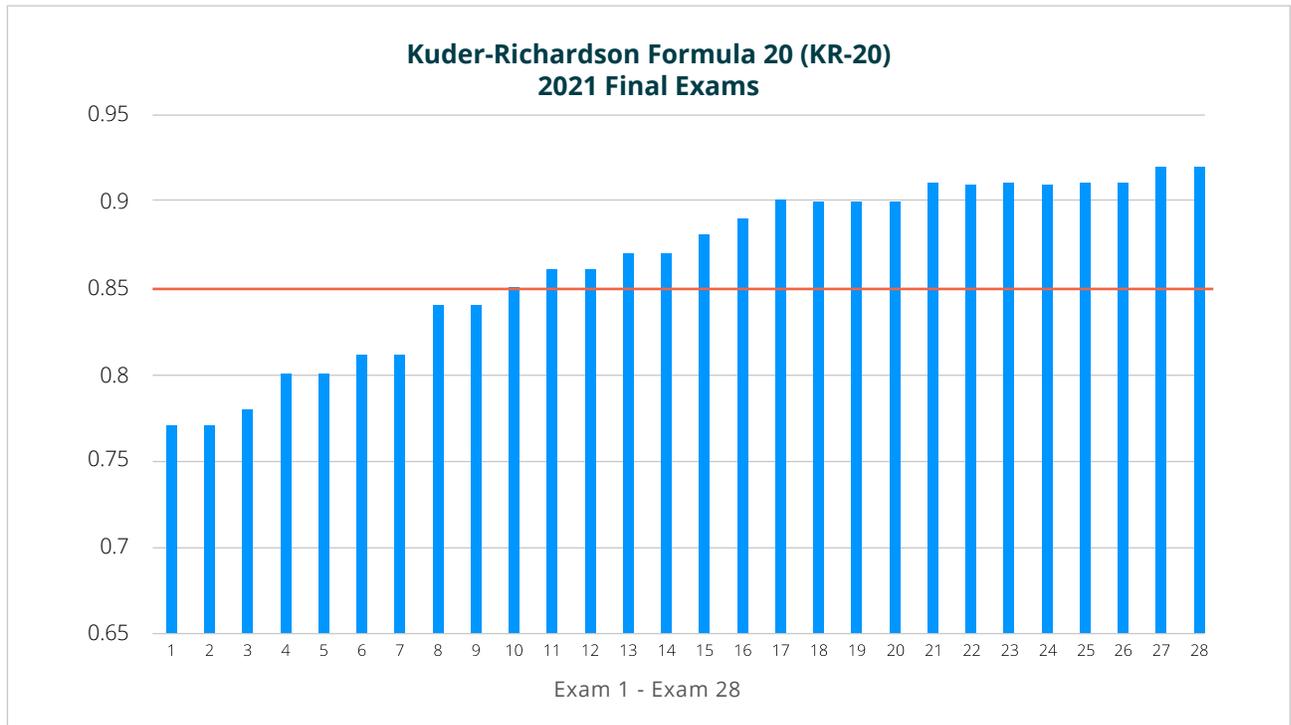
**Dr. Sabeeh Mashhadani**, Director of Assessment

## Psychometric Reporting

With ExamSoft's built-in psychometric reporting capabilities, exam administrators have access to metrics like item difficulty index, discrimination index, and Kuder-Richardson Formula 20 (KR-20) to help gauge the effectiveness of individual items as well as entire exams.

After every exam, the Vice General Secretary at the ABHS, Dr. Jawad Alsharif and the assessment director meet to discuss the psychometric data with the scientific council examination committee. This data helps them determine whether to delete certain items, make item adjustments for future exams, and measure the overall reliability of the exam. After the psychometric review is complete, the ABHS assessment department releases the results to candidates.

Beyond item-level insights, psychometrics can also help exam providers calibrate assessment quality across multiple specialties. In the table below, Dr. Sabeeh has referenced the KR-20 score of each final exam in 2021 to compare performance against a target score of .85. With these insights, the ABHS can focus efforts on improving exams that score below the target to deliver more effective exams across the board.



### Category-Based Reporting

After uploading finalized items for each specialty exam into ExamSoft, the examination committee tags each question to categories that correspond to relevant medical classifications. With these item tags in place, the ABHS can generate category-based reports that help to break down performance within specific subject areas on each exam.

ExamSoft's category performance reports show the average exam score within each category represented on the exam. If the average category score is low for most candidates, then this may indicate an opportunity to improve training efforts. The ABHS assessment department can use these reports, along with psychometric results for each exam, to determine if candidates struggled with same questions and categories and adjust exams as necessary. These reports can also benefit the curriculum development team in planning more effective training course material leading up to the exam.

"ExamSoft's category-based reporting can provide helpful feedback for trainers, for trainees, and even for curriculum development."

Dr. Sabeeh  
Mashhadani  
Director of Assessment

Having successfully transitioned the written component of its exams to digital assessment, the ABHS is planning to administer a portion of its practical exam using ExamSoft in the future. This portion of the exam requires candidates to provide answers in response to photos and illustrations, which ExamSoft's multimedia attachment feature can help exam authors achieve.

"The Council of Arab Health Ministers appreciates the steps we are making in our digital transformation."

**Dr. Omar Al-Rawas**  
Secretary General

In May 2022, Dr. Sabeeh Mashhadani presented an analysis of ExamSoft-derived assessment data to the ABHS Executive Office. In this presentation, the director of assessment detailed the category-based feedback available within ExamSoft and the potential benefits of sharing this feedback with key administrators to improve exam quality and strengthen the curriculum.

Dr. Sabeeh Mashhadani believes that more scientific communities can benefit from using a digital assessment software with category-based reporting, and he is hoping to share the successes at the ABHS with other universities and medical schools so that they may experience similar improvements within their programs.



ExamSoft is the digital assessment platform that helps institutions achieve higher levels of course, program, and student success. With an intuitive testing application, ExamSoft makes it simple to create, administer, and grade exams, and generate detailed performance reports from the results — all to provide educators with a complete and accurate view of student learning.

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 **US & Canada: 866-429-8889, ext. 2**  
**International: +1 954-429-8889, ext. 2**