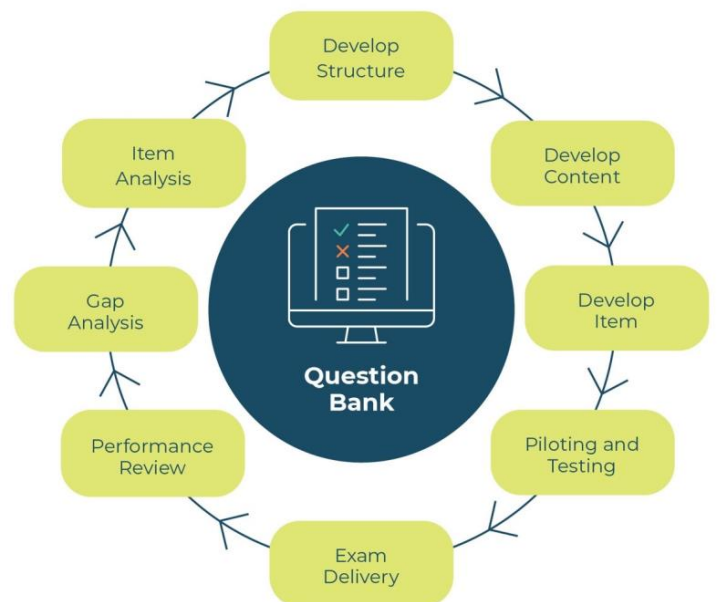




Question Bank Management

Aspeq provides comprehensive and customisable question bank management services.

We are experts in **developing** questions, testing them for **quality** and **validity**, and then monitoring them for **performance** and **reliability**.





We develop rigorous online assessments for regulatory and awarding organisations in high stakes environments

Our Exam Development Team (EDT) are experts in question bank management, developing new content, statistical analysis, and support.

We manage the question banks and assessments for several regulatory authorities and organisations across the world.

Our question bank specialists understand and respect the sensitivities of content ownership, control and security.

Our question bank management services include:

- › Assisting our clients to **develop or migrate their own syllabus** and question content to our secure question bank servers and assessment delivery systems.
- › Managing our network of **subject matter experts** and linguistic experts for building and maintaining question banks.
- › Managing the process of **developing new question banks** and assessments for our clients.
- › Designing and accommodating **complex syllabus structures**, delivery rules, and candidate feedback requirements.
- › Ongoing **performance monitoring** of questions.



Question Bank Management Process

We work with our clients to develop question banks that are tested, validated, and monitored for performance and reliability.

Develop Structure

We develop the syllabus to ensure the question bank is a **comprehensive and effective test of knowledge** of the entire subject matter.

The **syllabus can be based on your regulatory and legislative requirements**, teaching material, or any other documentation that describes the necessary subject areas.

We develop the assessment structure which contains the requirements for each assessment, including the duration, number of questions, examination rules, language(s), types of questions, exam sections from the syllabus, and number of questions for each section.

We can **develop assessments that randomly generate questions** selected from the question bank sections, which ensures the assessment contains questions encompassing the entirety of the syllabus while generating a unique assessment for each candidate.

Develop Content

Our network of **experienced subject matter experts** can develop new question content using a variety of different question types:

- › multiple choice
- › multi-select
- › essay
- › fill in the blanks
- › short answer
- › calculation

Each question can have a variety of reference material:

- › images
- › PDF documents
- › flight charts
- › diagrams

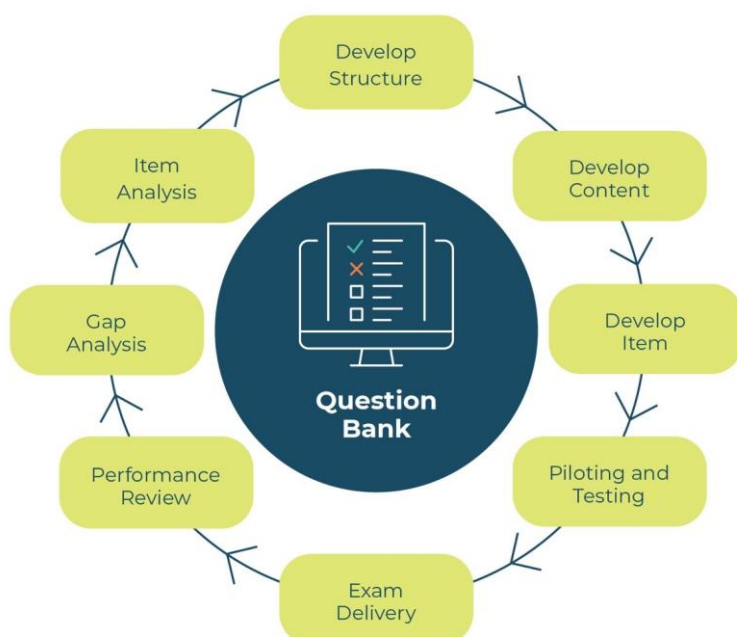
Develop Item

Our question development workflow is specifically built to carefully manage the various stages a question may be at, at any point in time, and ensures the questions and processes are controlled and that only authorised personnel have access.

The appropriate prescribed workflow is always followed to ensure the questions have been **thoroughly moderated** and checked prior to approval for use in a live assessment.

The questions can move back and forth for discussion throughout the process so that only the **highest quality questions** are introduced into the question banks.

The workflow ensures both technical and linguist experts review the question to ensure it is **grammatically correct, unambiguous, and effectively tests technical knowledge** against the syllabus.





Question Bank Management Process

Piloting and Testing

Before an assessment goes live for candidates, it is rigorously tested by our proofreaders and technical subject matter experts.

Assessment Delivery

Our assessments are automatically generated from the question bank and using the assessment template.

This creates a seamless process from question bank development to assessment booking and delivery.

Performance Monitoring and Item Analysis

Our statisticians conduct analysis to monitor the performance of assessments and questions. We set Key Performance Indicators (KPIs) for question performance, and if the question falls outside the KPIs, the questions are tagged for review.

This analysis includes:

- › **Identifying questions with high or low pass rate.** Abnormal pass rates are usually having the parameters of being too high (>95%) or too low (<50%).
- › **Identifying questions that are not discriminating correctly.** These are questions that are being answered incorrectly by high performing candidates and correctly by poorly performing candidates. This generally indicates ambiguity in the question.
- › **Performance of the question within the context of the examination format.** This compares the question's performance against the performance of other questions from the same section of the syllabus to check they are the same difficulty.
- › **Fairness of individual assessments.** Analysis of the overall difficulty of individual examinations based on the randomly generation of questions.
- › **Identifying implausible distractors.** Identifying answer options that are not often selected and ensure the answer options are plausible to be correct.
- › **Review of candidate comments.** Comments on questions from candidates are captured during assessment delivery and are analysed as an early indicator of any issues with questions.

The statistical analysis and other question data are used to determine the maintenance required on the question banks. Maintenance could include editing, removing, or resting a question from an assessment. All questions are kept in the question bank and can be referenced at any time even if they are archived.

Gap Analysis

We will conduct a routine gap analysis to determine if there is a deficiency in the question bank against the assessment template and whether new questions need to be commissioned to fill the gaps.



Quadrant

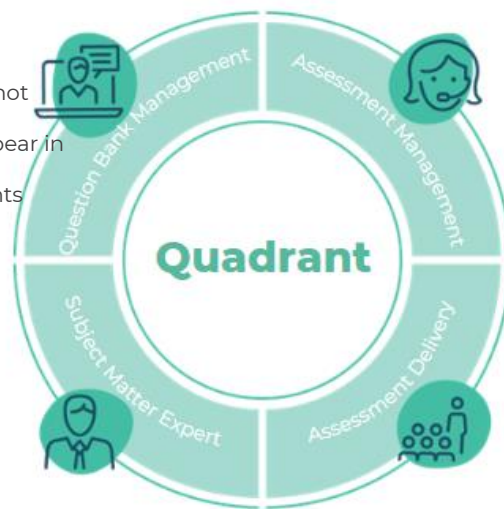
Quadrant is Aspeq's question bank management and assessment delivery system. Quadrant has been built on 30 years of question bank management experience by our in-house exam development and IT teams.

Question Bank Management functionality:

- > Complex syllabus structures
- > New question development
- > Question review process
- > Import/export question bank
- > Question versioning and status
- > 'Enemies' for questions that must not appear in the same assessment.
- > 'Chains' of questions that must appear in the same assessment.
- > Reference material and attachments

Subject Matter Expert interface:

- > Develop and moderate new questions
- > Automated workflows and task management
- > Complete assessment reviews



Assessment Management functionality:

- > Customised assessment structures
- > Multilingual assessments
- > Marking schedules for auto marking
- > Essay administration
- > Performance monitoring and statistical analysis
- > Assessment feedback management (Knowledge Deficiency Reports)
- > Results and reviews management

Assessment Delivery functionality

- > Secure delivery via internet for high stakes assessments
- > Flexible and secure delivery via internet for medium stakes assessments

Our process combines a rare mix of people, experience, technology and best practice to deliver results you can rely on, every time.

Secure platform for your content

Quadrant has been developed to meet international security standards. We are certified to ISO 27001 and ISO 9001 standards to ensure your content is treated with absolute sensitivity.

Full audit trail

All activities are recorded by user, time/date, and action. These audit logs can easily be searched by system administrators for complete peace of mind.

Contact details

Business Development

Email: sales@aspeq.com

Phone: +64 27 435 9309

www.aspeq.com