

LIONBRIDGE 

**THE INS
AND OUTS
OF GAME
TESTING**



As the video game industry continues to evolve, so do player standards. With the sheer volume of new releases, gamers are in a position where they can't possibly consume everything. They look for the best, turning to ratings, reviews, and word of mouth to decide what they'll play.

"The most polished game wins the market. Having the most polished game isn't a guarantee of success, but the inverse is certainly true: negative reviews from a linguistic or functional perspective will absolutely tank a game."

— Michael Burke, Database Manager at Lionbridge Games

A bug-free experience is expected of not only high-budget AAA titles, but also AA and indie titles. Thorough quality assurance is no longer optional — it's crucial to a game's success.



**Join us on a journey
through the game testing
process to learn how we help
games thrive in every market.**

WHAT IS GAME TESTING?

Game testing is a software quality assurance (QA) process wherein experts methodically identify and resolve defects, or “bugs,” in a video game to improve its stability and performance. In other words, it’s how developers and publishers ensure their games are high-quality, functionally robust, and appropriately localized before going to market.

Game testing consists of three main phases, which span the entire development lifecycle:



1.



**Functional
Quality
Assurance (FQA)**

2.



**Localization
Quality
Assurance (LQA)**

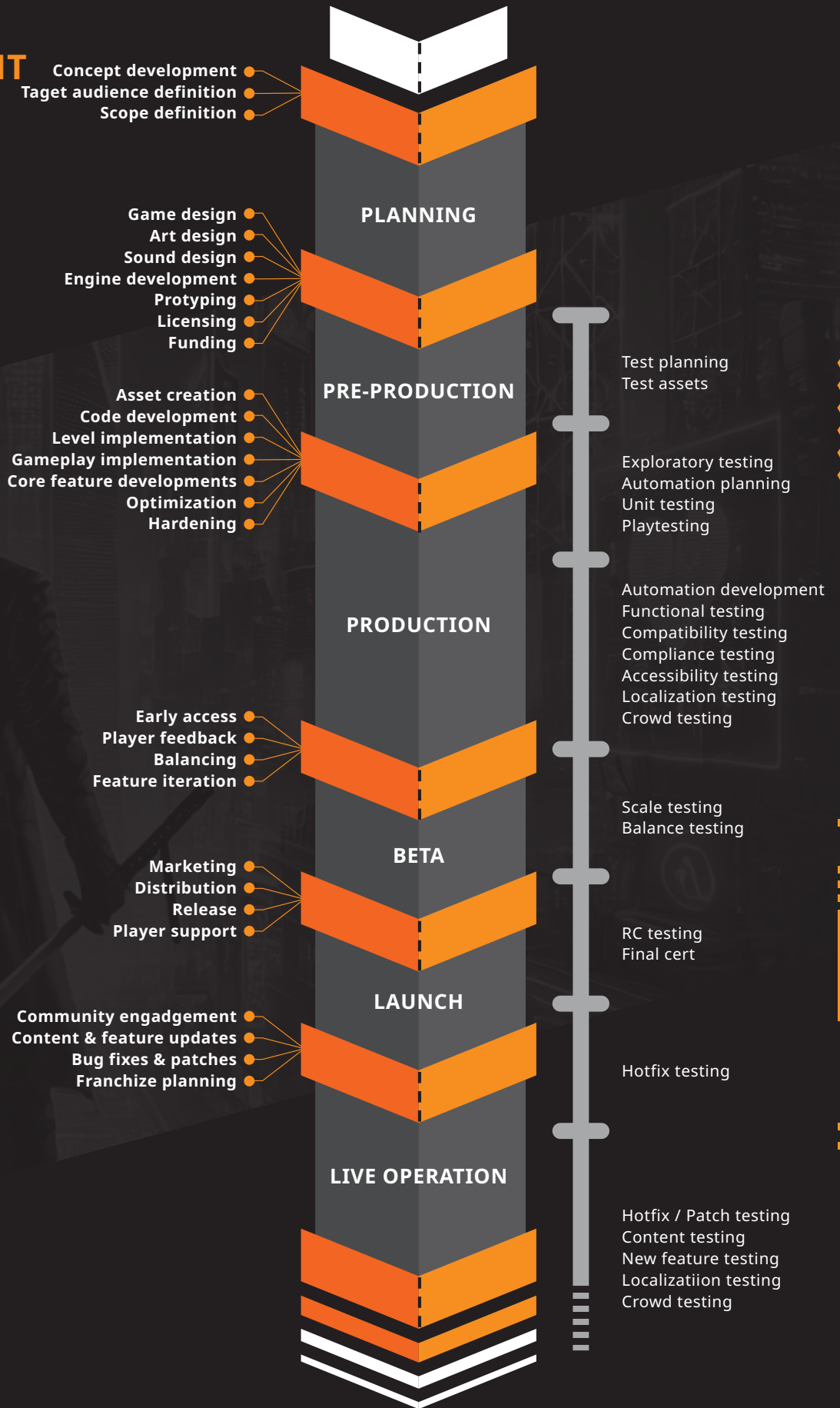
*sometimes referred to as Linguistic
or Language Quality Assurance

3.



**Crowd
Testing**

HOW DIFFERENT TESTS FIT INTO ALL THE DIFFERENT STAGES OF THE PRODUCTION CYCLE



FUNCTIONAL QUALITY ASSURANCE (FQA)

FQA refers to the process of ensuring that a software application or system functions correctly according to specified requirements and user expectations. It involves testing the software's functional aspects to verify that it meets the intended functionality and behaves as expected under various conditions. It is the most robust phase of the testing process and accounts for the majority of testing work performed on a given title.



FQA testers look for bugs within a game, its user interface, and graphics. This can include:



Game mechanics: Does the game function as intended? Can the player brick themselves or go out-of-bounds? Do AI and physics engines run properly? How does the player interact with other entities?



Game asset integrity: Is the audio quality crisp and clear? Are visual assets compressed? Are any assets overlapping or clipping when they shouldn't be?



User-friendliness: Are the text and graphics legible? Is the menu structure intuitive? Can the player effectively access each menu item? Is the game accessible to players with visual or auditory impairments?



Security: Is the software safe from external threats? Is player data protected from data breaches? Are the proper uncontrolled system access restrictions and encryption algorithms in place?



General usability: Is the loading time acceptable? Is the design responsive? How does screen resolution affect gameplay?

In addition to general functional testing, FQA testers also ensure games are compatible with different devices, perform well on different systems, and meet requirements for distribution on official platforms.



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COMPATIBILITY TESTING

For multi-platform games (which most titles are), testers install and boot the game on all intended platforms, checking to make sure the game runs as intended with various hardware and software configurations.



PERFORMANCE TESTING

Game performance is affected by several factors, including CPU memory, GPU processing power, RAM, internet connectivity, and more. Testers check peak load time, server response time, longevity, memory leakage, download time, throughput, and more to optimize game speed and provide minimum hardware/software recommendations for players.



CERTIFICATION TESTING

Platforms such as Steam, the Nintendo eShop, and the PlayStation Network Store have strict requirements that determine whether a game is eligible for sale on said platform. Expert FQA testers have a deep understanding of these rules and regulations and perform additional testing to help studios publish their products on the desired platforms.



MOBILE TESTING

Mobile games must also undergo battery consumption and network connectivity testing. Because mobile devices are usually disconnected from their power source, testers measure the battery consumption over long hours to optimize playtime. They also measure response time, packet loss, and data duplication on different network types (Wi-Fi, 5G, LTE, etc.) to understand the player experience on unreliable networks.

LOCALIZATION QUALITY ASSURANCE (LQA)

LQA is the process of adapting digital content to specific regions or languages. This includes not just language translation but also cultural adaptation and technical adjustment to meet local requirements. The goal is to ensure that the localized versions of a game are high-quality and provide a seamless user experience.

The LQA process usually begins after the initial stages of functional testing on the source content (often in English) are completed. Functional testing ensures that the game or software functions as expected, while LQA ensures that the localized versions function correctly and are culturally and linguistically appropriate for the intended markets.

LQA testers check for linguistic accuracy, cultural appropriateness, and functional issues that may have been introduced during the localization process.

This includes things like:



UI compatibility
(text length vs.
available space)



Left-to-Right
and
Right-to-Left
text support



Bi-Directional
display



Double-byte
character
support



Numeric
Formatting
(date/time,
currency,
address,
units of
measurement)



CROWD TESTING



Crowd testing is a unique branch of game testing that evaluates a game's performance and reception "in the wild" to eliminate uncertainties in the development process before a game goes live. Though it is not a "core" part of the game testing process, gathering player feedback and real-world data can help developers validate design choices and gameplay mechanics to improve the user experience.

Crowd Testing includes:



Games user research: It's important to know what players think of a game. User research and player interviews provide in-depth qualitative feedback to help developers fine-tune their products to audience expectations.



Playtesting: Playtesting enables developers to see how users interact with their games and uncover valuable insights into usability, fun-factor, player onboarding, and more to ensure games are optimized for target markets.



Server load testing: It's crucial that servers can handle the full scale of a player base. This type of testing helps identify infrastructure limitations and accurately understand how a game will perform with hundreds or thousands of concurrent players.



In-country network and connectivity: Actual players have different technical realities. In-country network testing evaluates a game's accessibility, loading times, network stability, and download speeds with varying providers, on different hardware, and in various locations around the globe.



Multiplayer and balance testing: Having multiple players introduces new variables that must be evaluated. This type of testing looks at lobby behavior, matchmaking, and game balance, allowing developers to experience their games through the eyes of real players.



Real-world compatibility testing: Real people are unpredictable — not every gamer has the ultimate setup. Real-world compatibility tests how typical users will experience a game using their own hardware, software, and network.



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STOP GUESSING. START TESTING.

FQA, LQA, and Crowd Testing make up a holistic testing process that can reduce turnaround times, cut costs, and provide a more consistent user experience. They can and should be leveraged together to minimize a game's bugs and maximize its quality.

Nailing your testing strategy is crucial, but it can be tricky. Not sure where to start? Reach out to our experts or check out our other game testing content.

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ABOUT LIONBRIDGE

Lionbridge Games delivers the gaming experience you envision to any global audience. Our passionate global gamers help bring every aspect of your game to life, without compromise. Our services include narrative design, game localization, voiceover recording, subtitling, quality assurance testing, and player experience services. Lionbridge brings the highest quality and most precise testing to every game you develop—everywhere it will be played.



LEARN MORE AT
GAMES.LIONBRIDGE.COM



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