Simple Blueprint For Large-Scale QA Team Structure

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Summary: Connecting the Dots

Creation and maintenance of a large-scale QA organization requires building a deliberate and well-defined structure to meet multiple stakeholder needs. This breakdown will address four major areas: **Game Studios/Teams**, **Publisher**, **Central Engineering Services**, and **External**. While there are multiple cross-overs or connection points, these distinctions help everyone understand key roles and responsibilities of each group.

Roles and Responsibilities

1. **Game Studios/Teams**

    a. Each team needs its own internal QA team focused on their respective team. When multiple teams are in a studio, they should be focused on a specific game. This is a relatively small team of mostly experienced QA members with a single lead, each of whom can confidently own sections of the game (often with more specialized skills or experience), interact with members of the development team, write test cases, etc. This group, and especially the lead, are basically part of the Production team - partners who advise and communicate game status, assess risk, and work directly with members of the game team to tackle problem areas. A small subset of SDETs in this group can help with game-specific automation and build optimization. This NOT a "coverage" team.

    b. This group is involved early in the project cycle, establishing processes, best practices, test case and bug writing standards, and working with the team to mitigate risks earlier rather than later. Input on design such as balance, difficulty, "cheats" or other short cuts, controls, etc. should be welcome, while feature suggestions and preferences should be managed as would be expected from any other member of the game team.

    c. Depending on the team, they may be heavily involved in playtesting, including definition and execution of various player personas themselves (i.e. casual, hardcore, speedrunner, min/max-er, tinkerer, completionist, etc.)

    d. Later in the dev cycle, while this team may grow slightly, it is more effective to lean on external test resources, preferably on the other side of the world (Eastern Europe or India are good candidates) to facilitate an overnight BVT cycle – assuming nightly builds. For example: team check-in cut off at 4:00, internal BVT with engine tools from 4:00-5:00 to make sure nothing is egregiously broken and write notes for areas that external QA should address, build starts at 6:00 (to leave a little buffer for the BVT), external team starts their day ~9:00 or 10:00PST, Tests the new build for 8 hours, and sends a report back to internal QA that highlights problem areas for deep dive with developers in the morning. Rinse and repeat!

2. **Publisher**

    a. Traditional publisher QA is the main line of defense for the product to the consumer and protection of the company's investment. This central "neutral" group focuses on wide coverage well beyond ad hoc game testing, including hardware compatibility, platform cert testing, and localization testing. Some or all of these could be outsourced to external teams, though central management and communication is still advisable.

b. As Publisher QA teams generally cover multiple projects, they tend to be fairly large even when External QA is involved, with small groups of experienced leads directing large groups of less experienced general testers. Leads act as main points of contact for Game Teams and External QA (different from any external vendor the Game Team QA group is working with). Leads also provide direction and filtering for their team's bugs to maintain writing quality and communication standards.

c. While initial direction and regular communication happens with the Game Team QA and Production groups, Publisher QA has independent goals to make sure the game meets the company's standards as ready for product launch. Game Team QA is "too close to the game" and should be. Publisher QA should maintain enough distance to be able to objectively evaluate the game against established criteria largely representing the end user. Design or content input of any kind should be discouraged unless specifically requested by the dev team.

3. **Central Engineering Services**

   a. QA for Central Engineering Services generally consists of a small team of high-technically skilled testers and SDETs. This group is focused on central technologies, helping to debug, automate, optimize, and otherwise assist dev teams in rolling out new technologies/features.

   b. This group also completes the loop with Game Team QA when technologies are implemented in their respective games. Helping Game Teams understand what is a Game Team bug vs. a Central Tech bug can save a lot of time and confusion, limiting the amount of "passing back and forth" of bugs that might be considered "someone else's problem." All this to say that this team should not just consist of SDETs alone, but game testers who will look closely at implemented technologies in games. Having deep implementation knowledge of specific features in QA (including helping with documentation) is key to Central Engineering Services technologies getting efficient use in game implementations.

4. **External**

   a. External QA has been touched on multiple times above and can play many different roles depending on the needs, scale, and complexity of the project. It is important to note that while pricing is a factor in determining how much External QA to attach to a project, the more important variable is flexibility. The ability for an external partner to ramp up and down while maintaining consistency of standards and communication is paramount to success, no matter what role they play on the project.

   b. Quality external leads with excellent communication skills are both harder to find than might be expected, and potentially even more important than with internal roles. So much can get "lost in translation" or otherwise missed in time-shifted, distant communication. Any difficulties in this regard quickly leads to wasted time on both sides of the ocean. Any due diligence and evaluation of potential partners should include not only knowing the leads who would be associated with a project to begin with, but also investigation into lead training practices the vendor employs to make sure team leads are consistently excellent (as they do tend to change fairly often).

   c. Coordination of any External QA through a central partner management team is a big advantage for long-term relationships with vendors, providing options and opportunities, managing contracts, and more. They would not be involved in the day-to-day QA management, obviously, but regular communication and status changes are key to an effective company-wide External QA strategy.