The software development life cycle, SDLC, has several steps. These steps guide the creation of quality, maintainable software. Some steps are planning, designing, building, testing, and releasing. The one to focus on right now is the testing stage, which is an essential part of development.

When it comes to the testing step, there's a lot to cover. Quality, system, unit, and user testing are all essential components. Each type of testing plays a unique role in ensuring that the software meets the requirements and is free from errors and bugs before release. While testing is distinct from debugging, they are interdependent in software development.

Early testing saves the company time and money and should be used more often. Testing is essential to ensure that the final product meets client expectations. It also helps the company make the best deliverable product that can be maintained. One way to do this is by continuously testing the product after each sprint on creation.

When it comes to cases of testing being done earlier or later for different reasons, the main one would be the development methodology used. Earlier testing occurs in the Agile, DevOps approach. They focus on early or continuous testing during development. Waterfall does not follow this, as testing occurs later, which can cause delayed release as issues get seen after the application is nearly complete. Considering everything above, Agile is the most used methodology as it involves testing early, so developers can fix the problems quickly without time delays and more cost.

References:

Morgan, Peter, et al. *Software Testing : An ISTQB-BCS Certified Tester Foundation Guide - 4th Edition*, edited by Brian Hambling, BCS Learning & Development Limited, 2019.*ProQuest Ebook Central*, https://ebookcentral.proquest.com/lib/snhu-ebooks/detail.action?docID=5837074.