

Lean Thinking shows that Agile Methods are Similar

Tom Poppendieck

Agile Methods are more similar than different. Lean thinking provides a conceptual framework which both rationalizes why agile methods work and provide guidance for tailoring them to specific situations. Lean thinking can be summarized in 7 principles:

Principle	Typical Application
1. Eliminate waste	<ul style="list-style-type: none">• If an activity is not valued by the customer, don't do it. Eliminate waiting
2. Amplify learning	<ul style="list-style-type: none">• Iterative development and incremental delivery. Concurrent Development of requirement details and code and tests.
3. Decide as late as possible	<ul style="list-style-type: none">• Implement only what you need for the current step. Defer design commitments until you need them to make progress.
4. Deliver as fast as possible	<ul style="list-style-type: none">• Use short iterations. Deliver working software every iteration, Highest value first.
5. Empower the team	<ul style="list-style-type: none">• Focus on the people. Train them, then trust the team to decide how to do their work.
6. Build integrity in	<ul style="list-style-type: none">• On-going detailed customer participation and customer tests. Test driven & domain driven development
7. See the whole	<ul style="list-style-type: none">• Focus on results, not intermediate artifacts. Avoid sub-optimizing. Collaboration comes from measuring the team, not individuals.

These principles have been proven repeatedly in many disciplines to deliver larger economic returns, higher quality, better customer satisfaction, and better work-life experiences. The principles work for lean manufacturing, lean product development, lean logistics and they are now proving themselves in the domain of software development.

An important impact of this similarity of conceptual foundation is that any given team will need to tailor whatever method they start with to address the unique context of their project. All the agile methods advocate learning and adapting their practices. The principles of lean thinking provide guidance about HOW to tailor. Changes which are consistent with the principles, even if inconsistent with the particular agile method the team starts with are likely to lead to effective results.

Specific agile methods support tailoring in different ways. XP provides the four values: courage, simplicity, communication, and feedback. Scrum supports it by virtue of being underspecified. Crystal supports tailoring by permitting the team to do whatever it needs to in addition to a very small set of baseline practices. The lean principles support tailoring any method.