Managing Uncertainty using the Agile Mindset

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What is the Biggest Risk Developing Software?
Developing the Wrong Software!
Who’s Fault ?!!

Discovery changes
Understanding
“IKIWISI”
I’ll Know It When I See It

Cone of Uncertainty

What contributes to the uncertainty?
What do we usually do about uncertainty?

Freak out!!

- Break things down (WBS)
- Buffer (estimates of time and money)
- Get commitments (scope and effort)

What else ...

How is Agile going to help?
Stages of Learning

守
Shu: Follow the rule

破
Ha: Break the Rule

离
Ri: Be the Rule

In this beginning stage the student follows the teachings precisely (without modification).

Concentrates succeeding by following just the one way being taught.

Learn the limits of techniques and how to shift between techniques.

Learn the underlying principles and theory behind the technique.

Shift between techniques at any moment and sometimes unable to describe the shifts.

Learning through self discovery rather than instruction while treasuring wisdom of the teacher and what was learnt before.

What is Agile?

No Documentation

Process?

No Architecture

Fad?

Framework?

Chaos

Methodology?

Cult?

No Planning

Approach?

No Discipline
Looking good and avoiding challenges and obstacles because it is a risk for failure and will make them look bad.

Stick to what they know and can do and as a result achieve less than their full potential.

Feedback and criticism is personal as it impacts self-image.

They don’t change or improve much with time, if at all, and so to them this confirms that “they are as they are”.

Embracing challenges because they will learn something new or they will fail and that is an opportunity to learn also.

Not afraid to put lots of effort to learn and master something new.

Feedback and criticism is not about them but about current capabilities.

View feedback as a source of new information that encourages them to keep learning and improving.

Success

A mindset is the established set of attitudes held by someone.

Fixed Mind-set
Ability is inherent and static

Demonstrate Ability

Leads to a desire to look good/smart

Growth Mind-set
Ability can grow

Develop Ability

Leads to a desire to learn

Success Delivering Software

Aspire towards

Aims to be successful by looking good and delivering planned results.

Wants to reduce uncertainty by asking the customer to confirm exactly what they want (change is not desired).

Wants to reduce uncertainty by confirming that developers know exactly how to build it (and learning is punished).

Assumes and hopes that nothing will change along the way.

Aims to be successful by learning and delivering desired results.

Wants to reduce uncertainty by allowing the customer to learn and discover what they want when they see it and experience it.

(Change is welcome)

Wants to reduce uncertainty by allowing the developers to discover how to build it when they build it (learning is rewarded).

Assumes that many things change along the way.

Fixed Mind-set
Ability is inherent and static

Demonstrate Ability

Leads to a desire to look good/smart

Agile Mind-set
Ability can grow

Develop Ability

Leads to a desire to learn
Different Types of Deliverables

- Documents
- Wireframes
- Screen Designs
- Discussions or Reviews
- No Interactivity

Effectiveness of feedback to help customers understand what they want

Richness of Deliverable

End-to-End Working software
Working Software
On-screen Interactive Prototypes
Interactive Paper Prototypes

Value-Based Discovery

Deliverables should have real business value (ROI) and provide the business with as much discovery as possible.

Discovery is not the main intent – but finishing the work in increments is (Good)

Discovery is the main intent – End-to-end valuable software is the focus (Better)
Deliver **to** Discover

... finish when you decide its time to deliver ...

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**Feature Usage**

- Never: 45%
- Always: 7%
- Often: 13%
- Sometimes: 16%
- Rarely: 19%

Source: Jim Johnson of the Standish Group, Keynote Speech XP 2002
AGILE IS ...

A mindset is the established set of attitudes held by someone

- Learn through Discovery
- Collaboration
- Failing Early
- Seeking Feedback for learning
- Strive for Continuous Delivery
- Focus on Value

Agile is a mindset 🌟
A Value is an established ideal that the members of a given society regard as desirable:
- **Individuals and interactions** over processes and tools
- **Working software** over comprehensive documentation
- **Customer collaboration** over contract negotiation
- **Responding to change** over following a plan

### Agile is a mindset ★ defined by values ◇

1. Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.
2. Welcome changing requirements, even late in development. Agile processes harness change for the customer’s competitive advantage.
3. Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.
4. Business people and developers must work together daily throughout the project.
5. Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.
6. The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.
7. Working software is the primary measure of progress.
8. Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.
9. Continuous attention to technical excellence and good design enhances agility.
10. Simplicity—the art of maximizing the amount of work not done—is essential.
11. The best architectures, requirements, and designs emerge from self-organizing teams.
12. At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.

### Agile is a mindset ★ defined by values ◇ guided by principles ▲
Agile is a mindset ★ defined by values ♦ guided by principles △ and manifested through many different practices and values.
Agile is a mindset ★ defined by values ◇ guided by principles △ and manifested through many different practices
Internalizing the Mindset, values, and principles then applying the right practices and tailoring them to different situations as they arise.

Learning the practices and applying them without knowing the mindset and principles to know when to tailor and how to select the appropriate practices.

Agile is a mindset defined by values, guided by principles, and manifested through many different practices.
WHAT ABOUT MANAGEMENT?

Defined Process

Predictable Outcome

Empirical Process

Non-Predictable Outcome
Defines Process

Predictable Outcome

Non-Predictable Outcome

Empirical Process

Depends on the degree to which the events and activities within the process are microscopically unpredictable or not.
Defined Process

Predictable Outcome
No Discovery
Low Uncertainty
No Creativity
Low Change Rates

Empirical Process

Non-Predictable Outcome
Discovery Needed
High Uncertainty
Creativity Needed
High Change Rates

Depends on the degree to which the events and activities within the process are microscopically unpredictable or not
It is possible to first complete specifications, and then build.

It is possible to identify, define, schedule, and order all the detailed activities.

Rarely possible to create upfront unchanging and detailed specs.

Adaptive steps driven by build-feedback is required.

Predictable Outcome
No Discovery
Low Uncertainty
No Creativity
Low Change Rates

Non-Predictable Outcome
Discovery Needed
High Uncertainty
Creativity Needed
High Change Rates

Stress
Lower Quality
Work weekends
Crunch testing
Overtime
The process needs to provide true visibility as well as be lightweight, flexible and nimble enough to constantly adapt.

CONCLUSION
Agile is all about the Mindset

Learn more about Agile ...

Agile Training (including PMI-ACP Prep Courses)
Agile Assessments
Agile Team and Organizational Coaching
Agile Strategy Consulting
Agile Software Development
Agile Outsourcing

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