

Inside the PMI-ACP Exam

PMI-SAC PDC Conference November 20, 2012

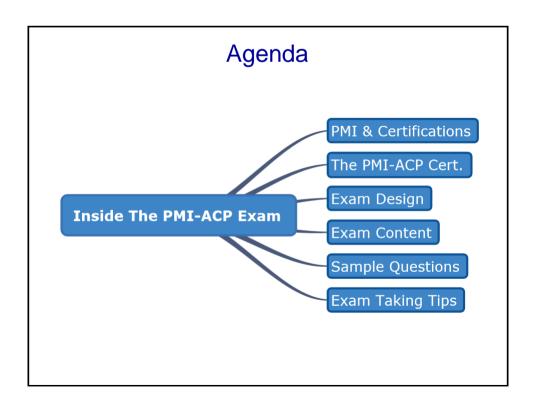
Mike Griffiths, PMP, PMI-ACP Leading Answers Inc. www.LeadingAnswers.com

Mike Griffiths

- Project Manager and Trainer
 - >25 years IT experience on oil and gas, utilities, defense, & finance
 - 10 years PMO Agile-to-Traditional Integration
- Agile Project Management
 - Helped create Agile method DSDM in 1994
 - 18 years agile project experience (XP, Scrum, FDD)
 - Board director of Agile Alliance and APLN
 - Author, trainer, and presenter Agile Conference 2001-12
 - Author "PMI-ACP Exam Prep" book by RMC
- Traditional Project Management
 - PMP, PRINCE2 certifications
 - PMBOK v3, v4 and v5 contributor and reviewer
 - Trainer for PMI SeminarsWorld 2005-2012
 - Presenter PMI Global Congress 2004-2012
 - PMI-ACP Certification Steering Committee member
 - PMI Agile Community of Practice Co-Founder

Presentation Objectives

- Explain the PMI and its Certifications
- Introduce the new PMI-ACP Certification
- Provide insights into the PMI-ACP Exam
- Explore the content
- Look at some sample materials and questions
- Provide some exam taking tips

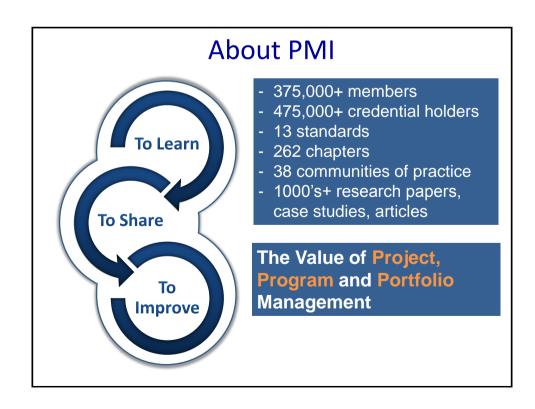


Priya Sethuraman

As a Product Manager of Credentials at the Project Management Institute (PMI), Ms. Sethuraman is responsible for PMI's Specialty Certification offerings which include the Project Management Institute Risk Management Professional (PMI-RMP)[®], Project Management Institute Scheduling Professional (PMI-SP)[®] and PMI's newest certification: the PMI-Agile Certified Practitioner (PMI-ACP)SM.

Immediately prior to working in the Certification Department with PMI, Priya worked in PMI's Human Resources department responsible for all domestic and global Employment activity as well as providing Human Resources Generalist support to the Global Business Units including PMI's China and India offices. Prior to joining the Institute, she served as a Director of Human Resources and Organizational development to a local non-profit organization.

Priya graduated from Temple University with a Bachelor of Arts degree in Psychology, with a specialization in Industrial Organizational Psychology. She also received a Master's degree in Organizational Leadership from Cabrini College.



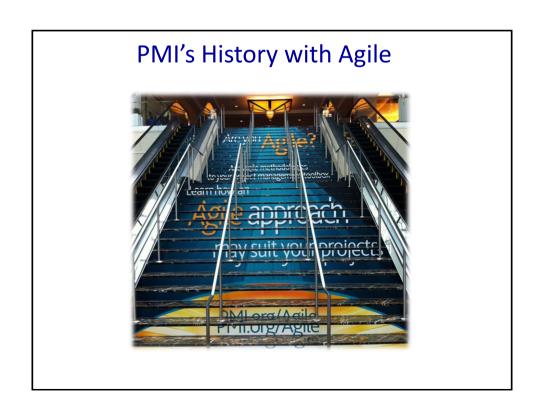
Certifications • Lead and direct project teams to deliver results within the PMP[®] constraints of budget, time, and scope • Demonstrates understanding of knowledge, processes, and **CAPM**® terminology of the PMBOK Guide® Oversee the success of the program and oversee multiple PgMP[®] projects, advancing strategic and business objectives Define and initiate projects and assign project managers Understand and apply agile tools, principles and practices PMI-ACP® on basic projects · Assess and identify project risks while mitigating threats PMI-RMP® and capitalizing on opportunities Develops and maintains and communicates the project PMI-SP® schedule

Certification Holders Worldwide

Certification Type	Active Certification Holders
PMP®	493,918
CAPM®	19,460
PgMP®	816
PMI-ACP®	1,668
PMI-RMP®	1,706
PMI-SP®	761
Total Certification	
Holders	518,329

As of 9 November 2012

Demand for Agile Gartner (2011): Agile development methods will be utilized in 80% of all software development projects by the end of 2012



PMI's History with Agile

- Congress presentations since 2004
 - Dedicated Agile track North America Congress 2011
- SeminarsWorld® sessions since 2005
- Agile Community of Practice established 2009
- PMBOK® Guide 3rd & 4th edition references to iterative development
- · Agile reference sources in PMI Marketplace

PMI's Agile Community of Practice

- · Open to all PMI members
- · Has over 14,000 subscribers
- Explores topics such as the benefits of implementing agile techniques, the principles of agile practices and the variety of agile frameworks and tools
- Networking within the specialty

What benefits do subscribers have access to?

Community of Practice Subscriber Benefits



OVERVIEW OF PMI-ACP®

PMI-ACP® Overview

- Intended for practitioners who work on Agile project teams
 - Not just project managers
- Measures a practitioner's knowledge and skill in Agile principles, practices, tools, and techniques
- · Covers multiple Agile methodologies
- Intended to cover use of Agile both in Information and Communications Technology (ICT) and outside ICT

The Value of PMI-ACP®

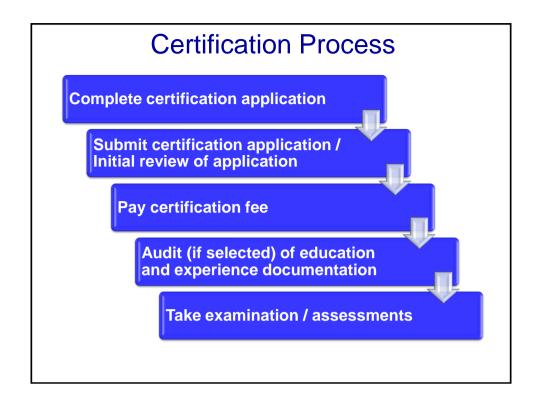
- For practitioners, PMI-ACP[®] helps:
 - Demonstrate a level of professionalism in Agile principles, practices, tools and techniques
 - Increase professional versatility in project management
- For organizations, PMI-ACP® demonstrates a practitioner's:
 - Knowledge of Agile practices, which shows the practitioner has greater breadth and depth as a PM

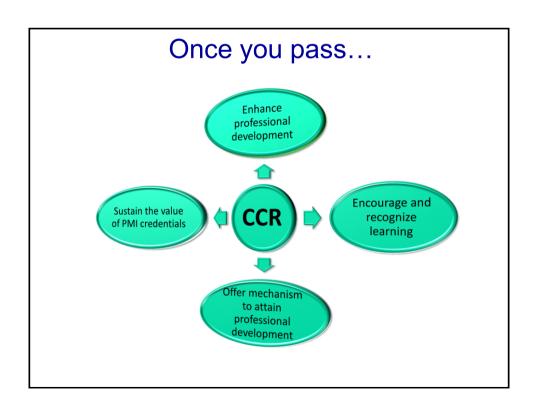
PMI-ACP - Eligibility Requirements

Requirement	Description
Educational Level	Secondary degree (high school or equivalent) or higher
General Project Experience	2,000 hours working on project teams. These hours must be earned within the last 5 years. <i>Note: a PMP will be accepted to fulfill these requirements.</i>
Agile Experience	1,500 hours working on Agile project teams. These hours are in addition to the 2,000 gen. practice hours. These hours must be earned within the last 3 years.
Agile Training	21 contact hours; hours must be earned in Agile project management topics
Examination	Tests knowledge of Agile fundamentals and ability to apply to basic projects
Maintenance	30 PDUs/3 CEUs every 3 years in Agile project management <i>Note: hours</i> would count toward PMP
Cost	\$435 member; \$495 non-member

Market Reaction

- Over 12,000 individuals have opened a PMI-ACP application, expressing interest
- Over 550 individuals participated in the PMI-ACP pilot (15 Sept – 30 Nov 2011)
- Over 3,000 individuals have submitted a PMI-ACP application
- As of November 2012, 1,668 PMI-ACP credential holders

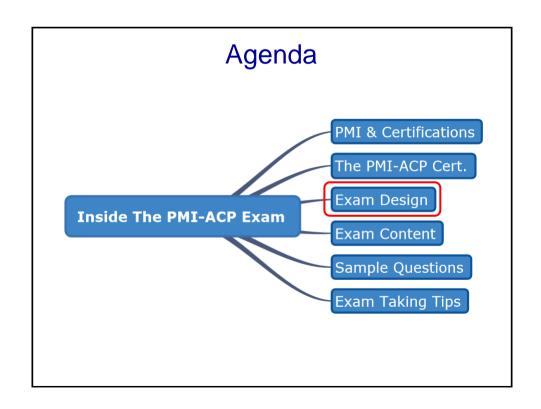




CCR Requirements

- The number of PDUs required varies by credential:
- · When you have:
 - PMP/PgMP: 60 PDUs per three yrs
 - PMP/PMI-RMP or PMI-SP: 60 PDUs per three yrs (30 in specialty area)

Credential	No. of PDUs
PMP	60
PgMP	60
PMI-ACP	30
PMI-RMP	30
PMI-SP	30



Agile, From The PMI?

"The PMI is what agile is rebelling against!"

"The PMI has no experience or credibility in agile!"

Research:

- 65% of PMI members are engaged on IT projects (PMI Membership Survey 2011)
- 85% of software projects will use Agile approaches (Gartner Research 2011)

The PMI Recruits Agile Experts



- Alistair Cockburn
- Mike Cottmeyer
- Jim Cundiff
- Jesse Fewell,
- Mike Griffiths
- Ahmed Sidkey
- Michele Sliger
- Dennis Stevens

Exam Design Objectives

Test Agile project knowledge and application:

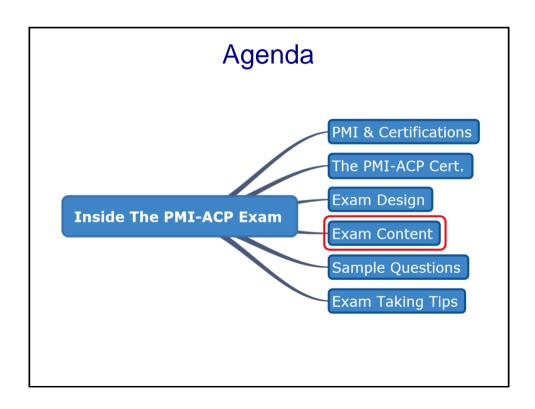
- Most projects
- Most of the time
- Some remote team members

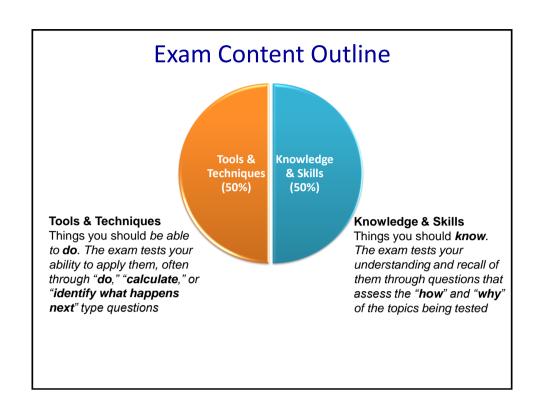
Not another Scrum (or XP, FDD) exam

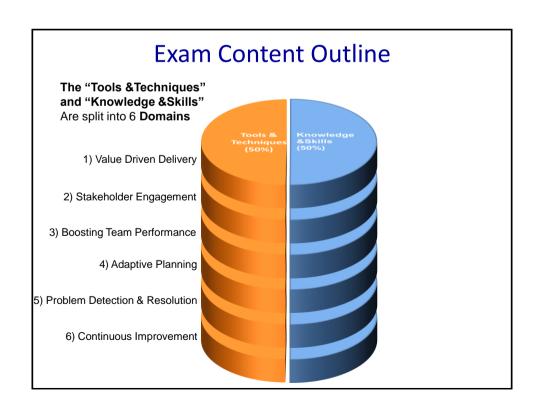
Combines Agile, Lean, and Kanban

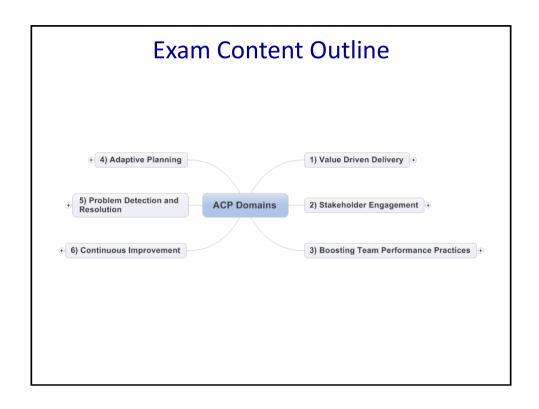
Meet Agile Alliance Exam Guidance "...employers should have confidence only in

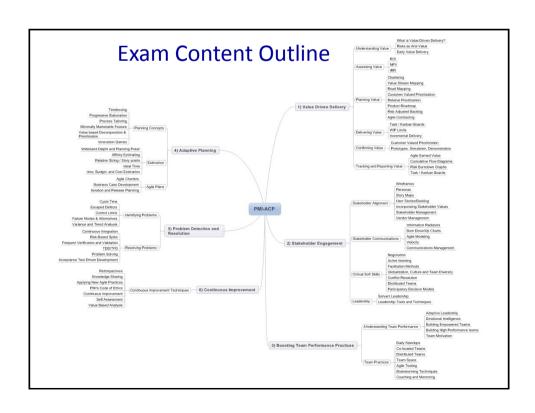
certifications that are skill-based and difficult to achieve."

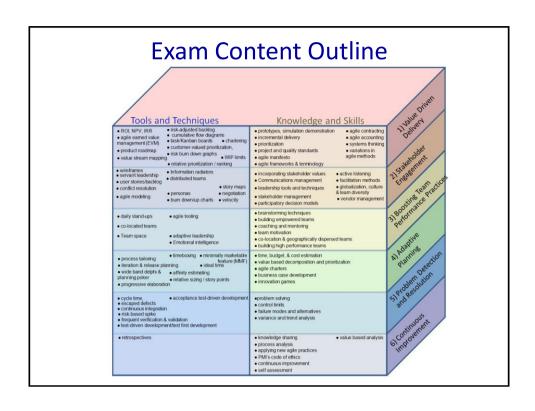


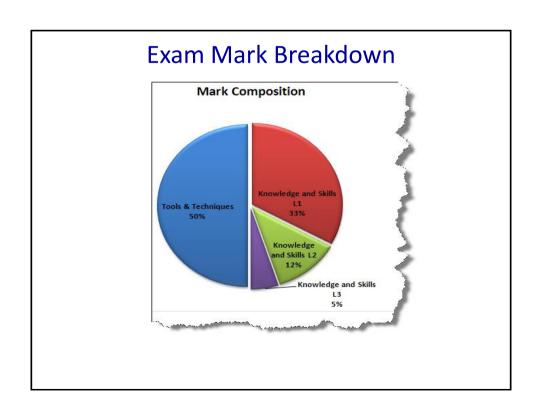










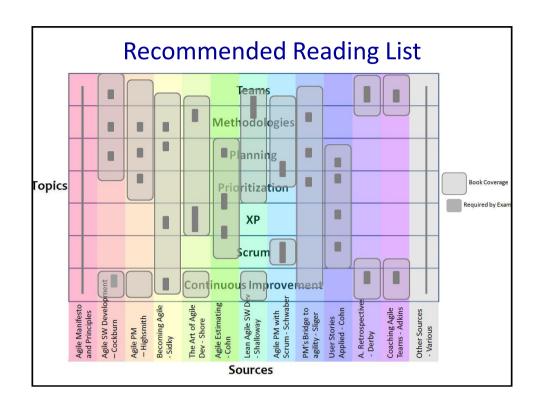


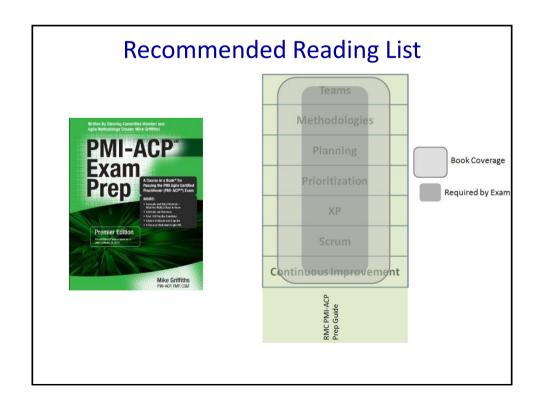
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Level	Knowledge and Skills		
Level 1	» Active listening » Agile Manifesto values and principles » Assessing and incorporating community and stakeholder values » Brainstorming techniques » Building empowered teams » Coaching and mentoring within teams » Communications management » Feedback techniques for product » Incremental delivery	Knowledge sharing Leadership Prioritization Problem solving Project and quality standards for agile projects Stakeholder management Team motivation Time, budget, and cost estimation Value-based decomposition and prioritization	
Level 2	» Agile frameworks and terminology » Building high-performance teams » Business case development » Co-location and geographically dispersed teams » Continuous improvement processes » Elements of a project charter for an agile project	» Facilitation methods » Participatory decision models » PMI's Code of Ethics and Professional Conduct » Process analysis » Self-assessment » Value-based analysis	
Level 3	» Agile contracting methods » Agile project accounting principles » Applying new agile practices » Compliance (organization) » Control limits for agile projects » Failure modes and alternatives » Globalization, culture, and team diversity	 » Agile games » Principles of systems thinking » Regulatory compliance » Variance and trend analysis » Variation in agile methods and approaches » Vendor management 	

Recommended Reading List

- 1. Agile Manifesto and Principles, Various
- 2. Agile Estimating and Planning, by Mike Cohn
- 3. Agile Project Management: Creating Innovative Products, 2nd ed., by Jim Highsmith
- 4. Agile Project Management with Scrum, by Ken Schwaber
- 5. Agile Retrospectives: Making Good Teams Great, by Esther Derby and Diana Larsen
- 6. Agile Software Development: The Cooperative Game, 2nd ed., by Alistair Cockburn
- 7. Becoming Agile...in an Imperfect World, by Greg Smith and Ahmed Sidky
- 8. Coaching Agile Teams: A Companion for ScrumMasters, Agile Coaches, and Project Managers in Transition, by Lyssa Adkins
- 9. Lean-Agile Software Development: Achieving Enterprise Agility, by Alan Shalloway, Guy Beaver, and James R. Trott
- 10. The Software Project Manager's Bridge to Agility, by Michele Sliger and Stacia Broderick
- 11. The Art of Agile Development, by James Shore and Shane Warden
- 12. User Stories Applied: For Agile Software Development, by Mike Cohn





Exam Details

3 hour computer based multiple choice exam offered at authorized Prometric Test Centres

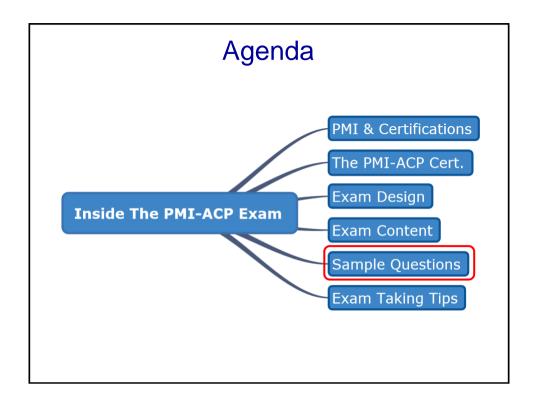


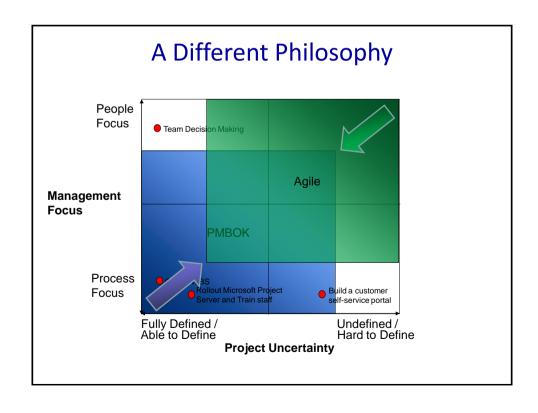
120 multiple choice questions (4 choices, 1 correct answer) (100 scoring questions, 20 test questions)

Question Types

Questions fall into:

- 1. Application of Tools and Techniques
- 2. Recall of Knowledge and Skills
- 3. Situational questions
- Q: "An agile team is planning the tools they will use for the project. They are debating how they should show what work is in progress. Of the following options, which tool are they most likely to select?"
 - A) User story backlog
 - B) Product roadmap
 - C) Task board
 - D) Work breakdown structure





A Different Philosophy

Traditional:

- Plan what you expect to happen
- Enforce that what happens is the same as what is planned
 - Directive management
 - Control, control, control
- Use change control to manage change
 - Change Control Board
 - Defect Management

Agile:

Plan what you expect to happen with detail appropriate to the horizon

"Control" is through inspection and adaptation

- Reviews and Retrospectives
- Self-Organizing Teams

Use Agile practices to manage change:

- Continuous feedback loops
- Iterative and incremental development
- Prioritized backlogs

Sample Questions

- 1) The Agile Manifesto value "customer collaboration over contract negotiation" means that:
 - A) Agile approaches encourage you not to focus too much on negotiating contracts, since most vendors are just out for themselves anyway.
 - B) Agile approaches focus on what we are trying to build with our vendors, rather than debating the details of contract terms.
 - C) Agile approaches prefer not to use contracts, unless absolutely necessary, because they hamper our ability to respond to change requests.
 - D) Agile approaches recommend that you only collaborate with vendors who are using agile processes themselves.

Explanation: Valuing customer collaboration over contract negotiation means we look for mutual understanding and agreement, rather than spend our time debating the fine details of the agreement.

- 2) Which of the following items is not a benefit associated with product demonstrations?
 - A) Learn about feature suitability
 - B) Learn about feature usability
 - C) Learn about feature estimates
 - D) Learn about new requirements

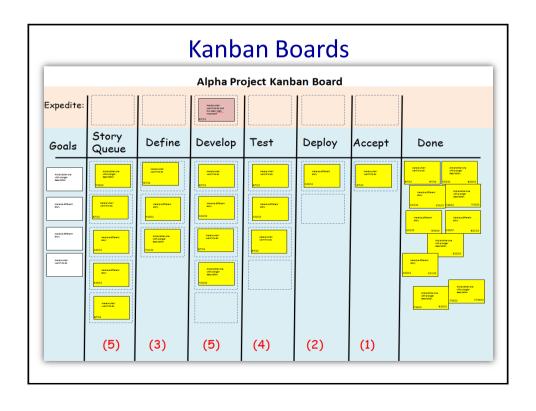
Explanation: Product demonstrations provide the benefits of learning about feature suitability and usability, and they can prompt discussions of new requirements. They are not typically used to learn about feature estimates, however, since estimating is done during estimation sessions, rather than during demonstrations.

Sample Questions

- 3) An agile team is planning the tools they will use for the project. They are debating how they should show what work is in progress. Of the following options, which tool are they most likely to select?
 - A) User story backlog
 - B) Product roadmap
 - C) Task board
 - D) Work breakdown structure

Explanation: Of the options presented, the best tool to show work in progress is a task board. The user story backlog shows what work is still remaining to be done on the project. The product roadmap shows when work is planned to be completed. Work breakdown structures are not commonly used on agile projects.





4) When using a Kanban board to manage work in progress, which of the following best summarizes the philosophy behind the approach?

A) It is a sign of the work being done and should be maximized to boost performance.

B) It is a sign of the work being done and should be limited to boost performance.

C) It is a sign of the work queued for quality assurance, which should not count toward velocity.

D) It is a sign of the work queued for user acceptance, which should not count toward velocity.

Explanation: A Kanban board shows work in progress (WIP), which represents work started but not completed. Therefore, the WIP should be limited and carefully managed to maximize performance. More WIP does not equal more output; in fact, it is quite often the opposite.

Template for Personas

Name (alliteration makes it easier to remember the name)

Picture



Description

- Things that help us understand the context in which the persona will interact with the system.
- Avoid details that have nothing to do with the system.
- The key is to be able to imagine the person and "be in their shoes" after reading the description.

Values

- What value do they want the system to give them.
- What are they looking forward to getting out of the system.
- Try to stay away from writing features "what" or the "how" of things at this point. Focus more on the "why."

Personas

Name: Bob the Movie Buff



Description:

Bob loves movies. On average he rents 5 movies a week from his local rental store.

His two children also like to watch children's TV shows. Often they like to watch the same shows more than once, which means that Bob sometimes has to pay late fees.

Bob's wife has different movies tastes to Bob and often spends a lot of time choosing a movie.

Values:

Bob would like to be able to order movies from the comfort of his home. He would like to be able to search for movies by name, actors, genres and directors. He would also be interested in how other viewers rated the movie.

He is looking forward to unlimited movies so his children can watch shows again and again without paying additional fees.

He would also appreciate a 'recommended' feature to help him and his wife choose movies.

Sample Questions

- 5) As part of stakeholder management and understanding, the team may undertake customer persona modeling. Which of the following would a persona not represent in this context?
 - A) Stereotyped users
 - B) Real people
 - C) Archetypal description
 - D) Requirements

Explanation: Personas do represent real, stereotyped, composite, and fictional people. They are archetypal (exemplary) descriptions, grounded in reality, goal-oriented, specific, and relevant to generate focus. Personas are not a replacement for requirements on a project, however.

- 6) Incremental delivery means that:
 - A) We deliver nonfunctional increments in the iteration retrospectives.
 - B) We release working software only after testing each increment.
 - C) We improve and elaborate our agile process with each increment delivered.
 - D) We deploy functional increments over the course of the project.

Explanation: Incremental delivery means that we deploy functional increments over the course of the project. It does not relate to retrospectives, testing, or changes to the process, so the other options are incorrect, or "less correct".

Sample Questions

- 7) To ensure the success of our project, in what order should we execute the work, taking into account the necessary dependencies and risk mitigation tasks?
 - A) The order specified by the project management office (PMO)
 - B) The order specified by the business representatives
 - C) The order specified by the project team
 - D) The order specified by the project architect

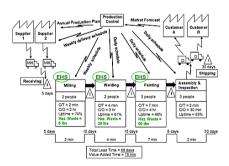
Explanation: It is largely the business representatives who outline the priority of the functional requirements on the project. That prioritization is then a key driver for the order in which we execute the work.

- 8) When managing an agile software team, engaging the business in prioritizing the backlog is an example of:
 - A) Technical risk reduction
 - B) Incorporating stakeholder values
 - C) Vendor management
 - D) Stakeholder story mapping

Explanation: We engage the business in prioritizing the backlog to better understand and incorporate stakeholder values. Although such engagement will likely impact technical risk reduction, vendor management, or stakeholder story mapping, these are not the main reasons we engage the business.

Not Just Agile - Value Stream Mapping

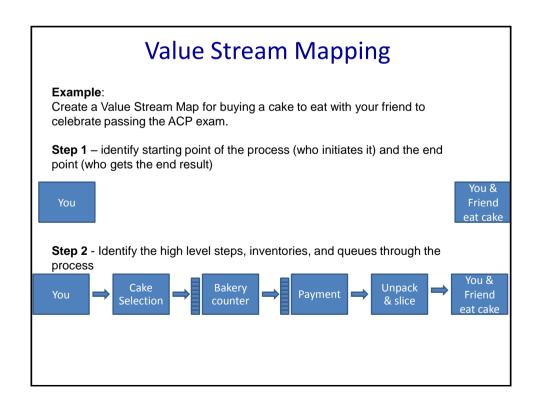
- Lean manufacturing technique
- Illustrates flow, queues
- Used to determine waste to be removed
- Focus on value adding

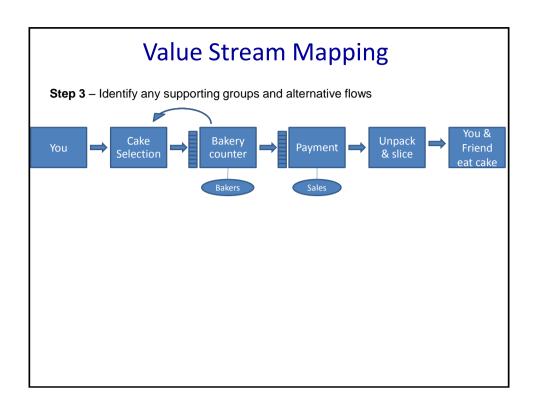


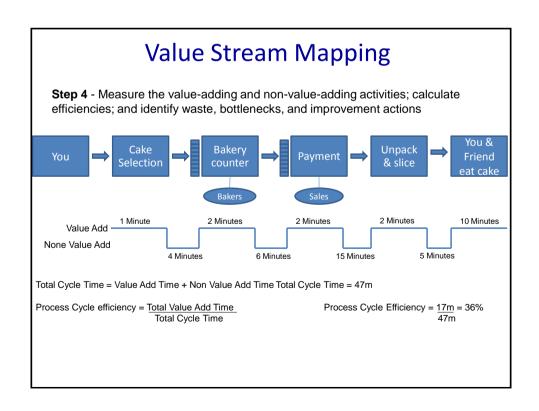
Value Stream Mapping

Steps:

- 1. Identify product / service to improve
- 2. Create as-is value stream map
- 3. Identify delays, waste, and constraints
- 4. Create to-be value stream map
- 5. Develop roadmap to optimized state
- 6. Revisit the process in the future







Value Stream Mapping

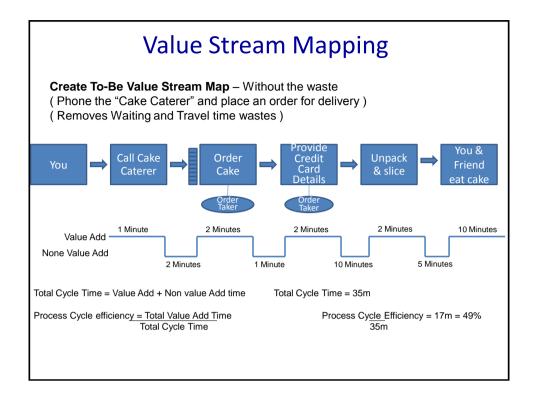
Steps:

- 1. Identify product / service to improve
- 2. Create as-is value stream map
- 3. Identify delays, waste, and constraints.
- 4. Create to-be value stream map
- 5. Develop roadmap to optimized state
- 6. Revisit the process in the future

Value Stream Mapping

7 Forms of Waste

Waste	Description	Example
Partially done work	Work started, but not complete; partially done work can entropy	Work waiting for QA Requirements waiting for development
Extra processes	Extra work that does not add value	Unused documentation Unnecessary approvals
Extra features	Features that are not required, or are thought of as nice to haves	Gold plating Technology features
Task switching	Multi-tasking between several different projects that have context-switching penalties	People on multiple projects
Waiting	Delays waiting for reviews and approvals	Waiting for prototype reviews Waiting for document approvals
Motion	The effort required to communicate or move information or deliverables from one group to another; if teams are not co-located, this effort may need to be greater	Distributed teams Handoffs
Defects	Defective documents or work products that needs correction	Requirement defects Impractical processes

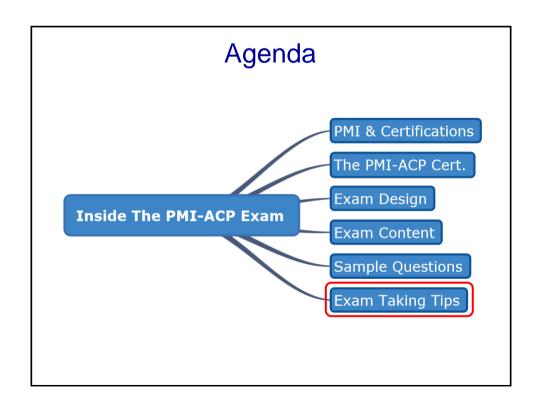


- 9) The steps involved in value stream analysis include:
 - A) Create a value stream map to document delays and wasted time, such as meetings and coffee breaks.
 - B) Create a value stream map of the current process, identifying steps, queues, delays, and information flows.
 - C) Review the value stream map of the current process and compare it to the goals set forth in the project charter.
 - D) Review how to adjust the value stream charter to be more flexible.

Explanation: The only option here that is a step in value stream analysis is "Create a value stream map of the current process, identifying steps, queues, delays, and information flows." None of the other options are valid steps in value stream mapping.

- 10) What is the process cycle efficiency of a 2-hour meeting if it took you 2 minutes to schedule the meeting in the online calendar tool and 8 minutes to write the agenda and e-mail it to participants?
 - A) 90%
 - B) 8%
 - C) 92%
 - D) 96%

Explanation: The formula for finding process cycle efficiency is: Total value-added time / total cycle time. In this question, the value-added time is 2 hours, and the total cycle time is 2 minutes + 8 minutes + 120 minutes = 130 minutes. So the correct answer is 120 / 130 = 92%.



PMI ACPism's

Be aware of Exam Question Assumptions:

- Assume a small, dedicated team (7 plus or minus 2) rather than a large one
- · Delivery Team includes scrum master BA, QA, developer, product owner
- Collaboration is always better than command control style management
- Face-to-face (co-location) is better than virtual
- · A stable team establishes a predictable velocity
- Teams self-organize, self-govern, self-directed, make their own commitments
- Recognize you can't know everything at the beginning of a project
- A software product can be delivered incrementally
- · Questions are asked from the perspective of a team
- On the iron triangle, agile sets the time and cost, scope varies
- Terminology: Timebox, sprint (scrum), iteration (xp) are used interchangeably

Exam Taking Tips 1

- 1. Find the test centre ahead of time
- 2. Bring authorization letter & two forms of ID
- 3. Wear comfortable clothes
- 4. Bring snacks
- 5. You will be given scratch paper and pencils
- 6. Write down anything you are having trouble remembering
- 7. You will see one question on the screen at a time. You can answer a question and/or mark it to return to it later.
- 8. The exam does not adapt to your answers
- 9. Use deep-breathing techniques to help relax
- 10. Use all the exam time. Do not leave early unless you have reviewed each question twice.

Exam Taking Tips 2

- 11. Find the question in the question text then read the rest of the text. Determine what your answer should be, and then look at the answer options shown
- 12. Read all 4 choices and choose the BEST answer
- 13. Quickly eliminate answers that are highly implausible
- 14. There may be more than one "correct" answer to each question, but only one "BEST" answer
- 15. Watch out for choices that are true statements, but do not answer the question
- 16. Options that represent broad, sweeping generalizations tend to be incorrect, so be alert for "always," "never," "must," "completely," and so forth. Alternatively, choices that represent carefully qualified statements tend to be correct, so be alert for words such as "often," "sometimes," "perhaps," "may," and "generally."

