1. Go to http://etc.ch/RmYZ *
2. Answer the question to start the poll

* On most phones, taking a picture of the QR code will activate your QR reader
How to Design and Build Agile Team Rooms that Rock!

PRESENTED BY
Kathy Aragon and Alfred Lorber, SNL

WITH ADDITIONAL CONTENT FROM
Andrea Hanson, Dekker/Perich/Sabatini Design
Gina Furrow, Facilities Engineering PM, SNL
Purpose

- Give you a design nomenclature overview
- Give you practical advice
  - From slides (not a TED talk!)
  - From handouts
- Increase your knowledge level from ~1-2 to 5-6 (out of 10) from the slides
- Further increase your knowledge from 5-6 to 8-9 from the handouts
  - Handouts are an expansion of the topics covered in the talk
Outline

- Good and Bad Team Room Design – Voting
- Why Team Rooms?
- Industry Terms and Nomenclature
- Practical Advice on Creating Your Team Room
- Good and Bad Team Room Design – Vote Again & Discuss
- Key Elements of Design and Implementation
Good and Bad Team Room Design – Voting

Why Team Rooms?

Industry Terms and Nomenclature

Practical Advice on Creating Your Team Room

Good and Bad Team Room Design – Vote Again & Discuss

Key Elements of Design and Implementation
1. Go to http://etc.ch/RmYZ *
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Good and Bad Team Room Design – Voting
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Key Elements of Design and Implementation
Why Team Rooms?

Agile Values

Manifesto for AGILE SOFTWARE DEVELOPMENT 2001

"We are uncovering better ways of developing software by doing it and helping others do it.

THROUGH THIS WORK WE HAVE COME TO VALUE:

INDIVIDUALS & INTERACTIONS
WORKING SOFTWARE
CUSTOMER COLLABORATION
RESPONDING TO CHANGE

OVER

OVER

OVER

OVER

PROCESSES & TOOLS
COMPREHENSIVE DOCUMENTATION
CONTRACT NEGOTIATION
FOLLOWING A PLAN

THAT IS WHILE THERE IS VALUE IN THE ITEMS ON THE RIGHT (BOTTOM), WE VALUE THE ITEMS ON THE LEFT (TOP) MORE.

Agile Principles
Why Team Rooms?

SAFe® Lean-Agile principles

#1 - Take an economic view

#2 - Apply systems thinking

#3 - Assume variability; preserve options

#4 - Build incrementally with fast, integrated learning cycles

#5 - Base milestones on objective evaluation of working systems

#6 - Visualize and limit WIP, reduce batch sizes, and manage queue lengths

#7 - Apply cadence, synchronize with cross-domain planning

#8 - Unlock the intrinsic motivation of knowledge workers

#9 - Decentralize decision-making
The Design Community agrees… get out of the single person office

A growing body of research shows the benefits provided by one’s ability to shape the work experience by choosing the type and location of workspace, and capability to modify workspace features: lower psychological and physiological stress, higher individual and group performance, faster business process time, and greater employee satisfaction.

Physical distance attenuates human communication

At 35 feet, you might as well be in a separate building

Good and Bad Team Room Design – Voting
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Key Elements of Design and Implementation
Why cover Designer Nomenclature?

agile ≠ agile
Why cover Designer Nomenclature?

common language
Workspace definitions in the design community

A collaboration workspace

- Where an employee goes to collaborate with others
- Outside of an employee’s normal workspace
- Varies widely in appearance and function
An agile* workspace

- Where an employee spends the majority of their day

- Provides a balance of *multiple spaces* that support *multiple work modes*

* agile ≠ Agile team

If you do a Goolge search:

(“agile workspace” OR “agile workplace” OR “agile working” OR “agile office”)

* agile ≠ Agile team
Workspace definitions in the design community

Has a bad name in the design and business worlds.

- **Why It's Time to Ditch Open Office Plans**
  - Aytekin Tank, *Entrepreneur*, February 7, 2019

- **Open office plans are as bad as you thought**

- **The impact of the ‘open’ workspace on human collaboration**
  - Bernstein ES, Turban S., *Phil. Trans. R. Soc. B* 373: 20170239, 2018
Agile workspaces: Provide a balance of spaces to support the five work modes

Today’s workforce is changing rapidly, demanding different ways of working. The typical day is filled with a wide range of interactions, from focused, independent work to collaborative team work. We refer to these varying interactions as work modes. People spend time collaborating, learning, socializing, and resting as well as focusing.
COLLABORATION:
Equal Exchange – One on One Rooms

Technology rich
Not reservable
COLLABORATION:
Diverse Viewpoints – Huddle Rooms

Technology rich
Not reservable
3-6 persons
Often same size as an office - interchangeable
COLLABORATION: Diverse Viewpoints – Enclosed Conference Rooms

Small conference 4-6 per

Technology rich
Reservable
Capacity varies

Medium conference 8-10 per
An open area where people can work together
Agile workspaces: Provide a balance of spaces to support the five working modes of collaboration, focus, learn, socialize, and respite.
FOCUS: Focus Rooms

Head down work = acoustic and visual privacy
Technology rich
One person

Credit: Steelcase
FIVE WORKING MODES

- COLLABORATION
- FOCUS
- LEARN
- SOCIALIZE
- RESPITE
LEARN: Multipurpose Rooms

Technology rich
Flexible
Training
FIVE WORKING MODES

COLLABORATION  FOCUS  LEARN  SOCIALIZE  RESPITE
SOCIALIZE: Lounge / Eat
FIVE WORKING MODES

COLLABORATION

FOCUS

LEARN

SOCIALIZE

RESPITE
RESPITE: Rejuvenate / Restore

Credit: Steelcase
Essential elements of an agile workspace

- The design community also discusses agile workspaces in terms of 5 **essential elements**
- They are **physical spaces**
- Each element supports one or more work modes, except for Resources

More Information: *Top 5 Elements of an Agile Workspace*
Work modes to essential elements mapping

<table>
<thead>
<tr>
<th>Work Modes (what workers need - interaction)</th>
<th>Essential Elements (physical space that provides it)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaborate</td>
<td>Touchdown</td>
</tr>
<tr>
<td>Focus</td>
<td>Quiet Zones</td>
</tr>
<tr>
<td>Learn</td>
<td>Open Plan</td>
</tr>
<tr>
<td>Socialize</td>
<td>Breakout</td>
</tr>
<tr>
<td>Respite</td>
<td>Resources (storage and materials)</td>
</tr>
</tbody>
</table>
Why did we cover Designer Nomenclature?

Let’s recap:

1. Workspace types
   - Collaboration workspace
   - Agile workspace
   - Open office

2. Agile workspace nomenclature
   - Work modes
     - Collaboration, Focus, Learn, Socialize, Respite
   - Essential elements
     - Open Plan, Touchdown, Breakout, Quiet Zone, Resources

So this DOESN’T happen!

agile ≠ agile

“I need an agile workspace for my team that is using Agile product development”
Good and Bad Team Room Design – Voting

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Key Elements of Design and Implementation
Collaboration workspaces in order of increasing benefit to teams

“Standup” room
- A place where Agile teams can consistently have Daily Standup meetings
- Include a dedicated wall where teams can have persistent artifacts

Easily scheduled meeting room
- A place where Agile teams can easily and on short notice reserve meeting space
- Need white boards and accessible computer with projector or large display

Shared Work Room
- A place where Agile teams can meet on a cadence and do work together
- Must have needed computer infrastructure and white boards
- A place shared with other teams via scheduling (M,W; T,Th; AM-PM; etc.)

Dedicated Work Room
- Just like a shared work room, but dedicated to one team
The workspace with the most benefit to teams

**agile workspace**

- A place where teams spend their entire day
- Everything needed to do their work is available
What is an Agile team room?

It is where an Agile team gathers to work.

It spans a spectrum from…

- simple, low use
- all day, high utilization

That is ….

- stand up room
- agile workspace
Standup room to agile workspace

1. Standup Room
2. Conference Room
3. Work Room
4. Agile Workspace

Agile Team Room Type

Professional (Corporate Facilities)

DIY
Standup Room to Full Agile Workspace

1. Standup Room
2. Conference Room
3. Work Room
4. Agile Workspace

DIY Professional

Overhead Mission Processing SAFe Team

Build Type
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OMP Project - Star Trek NG room
Positives evident in picture

- Collaboration work mode supported via Open Collaboration, Conference rooms and Huddle rooms
- Easy to reconfigure desks within confines of power/networking lattice
- Resource Essential Element via mobile cabinets

Negatives evident in picture

- None
Positives not evident in picture

- Movable bookcases provide additional Resource Essential Elements
- Socialize (with kitchen) and Respite work modes in next room
- All walls are whiteboard walls

Negatives not evident in picture

- Power & network lattices are not easily reconfigured
- Sound leakage between conference room and Open Collaboration area due to open ceiling airflow requirements (This was a known design tradeoff)
- Whiteboard walls are difficult to keep clean
- Portable building challenges:
  - Squeaky floor
  - Challenging climate control
  - Wind noise

Our Vote Avg: 5
Positives evident in pictures

- Collaboration work mode via Open Collaboration
- Furniture can be easily moved
- Whiteboards on all walls

Negatives evident in pictures

- Collaboration is the only work mode supported
- Technology poor
- Effectiveness of room dividers is unclear
- Furniture is very basic
Positives *not* evident in pictures

- None

Negatives *not* evident in pictures

- Room dividers are unmovable and ineffective for visual and acoustic separation
- Power and network only on the walls
- Designed by a manager with no input from occupants, who then left the company

Our Vote Avg: 1
Positives evident in pictures

- Collaboration work mode via Open Collaboration and Huddle
- Socialize work mode
- Whiteboard walls and mobile whiteboards
- Technology rich
- Custom lighting

Negatives evident in pictures

- Crowded space
- Collaboration and Socialize are the only work modes supported
- Few Resource Essential Elements
Positives *not* evident in pictures

- Other work modes supported just outside of the room: Socialize, Respite
- Collaboration Conference Rooms just outside of the room

Negatives *not* evident in pictures

- Noise can be a problem
  - Low ceilings and carpeting help
- Is just a large room with two doors, no windows
- Power and network only on the walls

“Our Vote Avg: 4

“I can feel software being made”

-Dean Leffingwell (Team Room Visit April 23, 2019)
Good and Bad Team Room Design – Voting

Why Team Rooms?

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Key Elements of Design and Implementation
Key Elements of Design and Implementation

- Team Engagement
  - Mockups
  - Design renderings
  - Inspiration from nature, movies, eras, etc.
  - Requirements
  - Conduct surveys
  - Field trips to other spaces
Team Engagement – Approaches: Mockups

Help to visualize design choices

Huddle Room Size
Bring concepts and design choices to “life”
Bring concepts and design choices to “life”
Team Engagement - Approaches: Inspiration
Team Engagement: Implementation of Inspiration
Team Engagement: Requirements

Solicit...

Affinitize...

Prioritize via Dot Voting...
Communicate...

May include reference material:

“**A new study should be the final nail for open-plan offices**”

“**Research: Cubicles are the absolute worst**”
Ask team to choose furniture, room themes, color schemes, etc.
Get design ideas and what won’t work for your team
Team Engagement: Field Trips

See people at work in the space
Agile Team Rooms at Sandia
Team Engagement

Implementation

Handouts
Implementation: Teams Involved in a Professional-Build agile workspace

Coordination Team

Facilities

SMEs

Financial

Design/Architecture

Construction

Occupants
Teams Involved vs Agile Team Room Type

Standup Room

- Occupants
- SMEs
- Facilities
- Coordination
- Construction
- Design/Architecture
- Financial

Agile Workspace

Always

Probability increases that teams will be needed
Teams Involved vs Agile Team Room Type

- **DIY**
  - Always
  - Occupants
  - Financial
  - Design/Architecture
  - SMEs
  - Facilities
  - Coordination
  - Probability increases that teams will be needed
  - *Construction not needed for pure DIY

- **Professional**
  - Always
  - Build Type
  - Agile Team Room Type
  - Agile Workspace
  - Standup Room
  - DIY
  - Professional

*Construction not needed for pure DIY
And don’t forget Security…

*Always consult with your security specialist*

Security Issues:

- TEMPEST requirements for wireless and wired are non-negotiable
  - Specifications regarding leaking electromagnetic emanations
- Networking (classified/unclassified)
- Persistent information on walls: written and electronic information radiators
- Visual separation: Monitors, information on walls, documents, etc.
- Physical access
- Visitors
- Uncleared workers
- Escorting
- Conversations: Open > Private > Secure
- Amplified conversations
- Video conferencing

Security Lessons Learned:

- Design security in *from the beginning*
- And a story to drive home several lessons learned: *Two teams in two different Agile Team rooms at Sandía*
- Start with the “what”
  - Work with the occupants to fully understand what they need
    “We want to monitor/escort un-cleared occupants”
- Move to the “how”
  - Tribal knowledge is abundant, and often wrong
  - Do not assume you understand policy
    “You must maintain line-of-sight with escorted people”
  - You may not realize the flexibility you actually have
  - Find the definitive expert in your corporation who understands principles vs practice
    *Principle:* “You must ensure that escorted people understand their boundaries”
    *Practice:* One team chose electronic monitoring of exits
- Push responsibility down to the team level
  - *Better Practice: Instead of installing physical constraints train occupants*
    Second team implemented access agreements among occupants and associated on-boarding training
- Finally, improve iteratively
  - Solutions are sometimes extremely simple
  - Go with simple solutions and agree to move to more complex if necessary
    *If access agreements stop working, second team will move to a physical solution*
Team Engagement
Implementation
Handouts
Can be downloaded here: bitly.com/2019SAFeSummitTeamRooms

1. **Checklist** and **Lessons Learned** for creating your team room
   - High-Level – From a Professional build standpoint
   - Detailed – Adds lessons learned, including those for security

2. **Facilities schedule**
   - Provides insight into corporate bureaucracy

3. **Sample** Coordination Team Agile **backlog**

4. **Requirements** gathered from multiple teams

5. **Survey results** from OMP agile workspace occupants – post occupation

6. **Read Me** file describing the handouts
I work in a team room that rocks!

Paul

Alfred

Kathy

Niko-Niko Calendar
Questions?
**Contact Information**

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Tracking Number: 1032318
Type: FORMAL - Conference  
Paper/Poster/Presentation  
SAND No: SAND2019-11763 C
OMP Project – 894 Mezzanine
Positives seen in pictures

- Collaboration via extremely large Open area
- Focus via cubicles along the sides
- Ample power and networking via poles allows multiple furniture configurations
- Movable furniture

Negatives seen in pictures

- Could be noisy because of many people in large room with no barriers
- Only two work modes supported
- 30 year old ambiance due to use of recycled furniture and age of the space
  - Was remodeled soon after
Positives *not* seen in pictures

- Collaboration via Huddle and Conference
  - At far end of open area
- Socialize supported via kitchen and breakout areas
- Resource via large supply room and bookcases throughout the area
- Very, very quiet due to carpet, sound absorbing roof tile and sound soak on cubicle walls

Negatives *not* seen in pictures

- Cubicles along walls were not for team room occupants
  - Were for a different project
  - This caused friction between the projects
    - “You guys talk and laugh too much”
Positives seen in pictures

- Socialize and Focus work modes
- Ample Focus areas via cubicles

Negatives seen in pictures

- No Open Collaboration (is a cubicle farm)
- Non-cubicle Focus areas lack acoustical privacy
- Huddle areas are very exposed
Positives *not* seen in pictures

- Conference supported at far ends of the space
- Socialize supported via kitchen and breakout areas
- Ample Resource areas
- Modern furniture and feel due to recent remodel

Negatives *not* seen in pictures

- Room’s “vibe”
  - Room is not built for continuous collaboration, only collaboration during breakout sessions
- Very little configuration flexibility
- Bad deployment of technology in Open Collaboration areas
  - One area had two large screen monitors with no way to drive them

**Our Vote Avg: 2**