

Extracted from:

Code with the Wisdom of the Crowd

Get Better Together with Mob Programming

This PDF file contains pages extracted from *Code with the Wisdom of the Crowd*, published by the Pragmatic Bookshelf. For more information or to purchase a paperback or PDF copy, please visit <http://www.pragprog.com>.

Note: This extract contains some colored text (particularly in code listing). This is available only in online versions of the books. The printed versions are black and white. Pagination might vary between the online and printed versions; the content is otherwise identical.

Copyright © 2018 The Pragmatic Programmers, LLC.

All rights reserved.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form, or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior consent of the publisher.

The Pragmatic Bookshelf

Raleigh, North Carolina



Code with the Wisdom of the Crowd

Get Better Together with Mob Programming

Mark Pearl
edited by
Tammy Coron



Code with the Wisdom of the Crowd

Get Better Together with Mob Programming

Mark Pearl

The Pragmatic Bookshelf

Raleigh, North Carolina



Many of the designations used by manufacturers and sellers to distinguish their products are claimed as trademarks. Where those designations appear in this book, and The Pragmatic Programmers, LLC was aware of a trademark claim, the designations have been printed in initial capital letters or in all capitals. The Pragmatic Starter Kit, The Pragmatic Programmer, Pragmatic Programming, Pragmatic Bookshelf, PragProg and the linking *g* device are trademarks of The Pragmatic Programmers, LLC.

Every precaution was taken in the preparation of this book. However, the publisher assumes no responsibility for errors or omissions, or for damages that may result from the use of information (including program listings) contained herein.

Our Pragmatic books, screencasts, and audio books can help you and your team create better software and have more fun. Visit us at <https://pragprog.com>.

The team that produced this book includes:

Publisher: Andy Hunt

VP of Operations: Janet Furlow

Managing Editor: Brian MacDonald

Supervising Editor: Jacquelyn Carter

Development Editor: Tammy Coron

Copy Editor: Jasmine Kwityn

Layout: Gilson Graphics

For sales, volume licensing, and support, please contact support@pragprog.com.

For international rights, please contact rights@pragprog.com.

Copyright © 2018 The Pragmatic Programmers, LLC.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form, or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior consent of the publisher.

ISBN-13: 978-1-68050-615-0

Book version: P1.0—July 2018

Preparing the Workplace for Regular Mobbing

In [Finding a Place to Start Mobbing, on page ?](#), you were encouraged to start mobbing in meeting rooms. While this works great initially, in time, you'll discover it's difficult to book the same meeting room all the time—as it turns out, other people need rooms too.

When someone else needs the room, your mob needs to move; the overhead of the mob moving regularly kills momentum, resulting in a poor experience. Instead, you want to move mobbing into your normal work area.

Mobbing in your normal work area has its own challenges, if you don't have a conducive place people won't do it regularly. In this chapter, you'll find out how to adjust your workplace to get everything you need for regular mobbing.

Guiding Principles for Your Workplace

The challenge with giving specific details on how to set up a mobbing environment is that every workplace is different—there are just so many variations on how your specific workplace is laid out that to cover all of them would be a book in itself (and a pretty boring book, at that). Instead, this chapter will outline a few guiding principles and then cover some of the most common scenarios; use these as a template and adjust to suit your specific needs.

The guiding principles around adjusting your workspace for mobbing are:

- Try before you buy.
- Movable is better than fixed.
- Nearer is better than farther.
- Space is important.

Here's a closer look at each:

Try before you buy. It's unusual to get the hardware setup correct the first time around. Before blowing your budget on that large, high-resolution TV that everyone wants, rent it for a few weeks. If things don't work out, you can try something else. Once you have a better idea of what works, then you buy it—renting everything for the first month keeps this option open, so try before you buy wherever possible.

Movable is better than fixed. When things are fixed to the ground or bolted to the wall, they're difficult to move, and that's something you want to avoid. For all you know, the size of your mob may change, and you'll need to move equipment around to maintain an ideal mobbing experience—so rather than keep equipment and other things firmly fixed in place, keep them movable.

Nearer is better than farther. The nearer you have your mobbing area to where your team works, the better. Even a few meters away from your regular working areas can mean the difference between a mob happening or people working on their own. In my experience, there seems to be a direct correlation between the distance between the mobbing area and where a team normally works and the amount of mobbing that actually happens.

Space is important. When you plan your mob area, make sure there's enough space for people to sit comfortably and not feel crowded. I've seen mobbing areas where people were on top of each other because there simply wasn't enough space available—this leads to a suboptimal experience. How much space you need depends on the mob area layout you choose; you'll learn more about that in [A Typical Mob Layout, on page 6](#).

Don't Let Less Than Ideal Setups Stop You From Mobbing

Sometimes you won't be able to get the budget to set up an ideal mob station from day one—but don't let that stop you from mobbing. There's usually always a way to make a plan, you sometimes just need to think a little outside of the box.

The first mobbing station I set up cost the business nothing. I brought my 42" TV from home, we found a spare desk, made some space in our team area, and we were good to go. It wasn't ideal, but it worked—in time, as we showed the results from mobbing, we got the budget approved to get better equipment (and I was able to take my TV back home).

A Typical Mob Layout

Now that we've covered the overarching principles, let's go into a little more detail around the layout and the equipment you'll need to mob.

The following illustration shows a typical mob layout, with the screens in front, followed by a table; the typist is positioned in the middle of the table—center to the screens—and is surrounded by the rest of the mob, who are within easy reach of the whiteboard:



The distance from the table to the screens is determined by the ideal viewing distance. There are several screen-size-to-distance calculators¹ available on the web that you can use to figure out this distance.

When planning the mob area, try to have enough space for visitors to join the mob. Also, you may find it beneficial to have one or two additional chairs free for visitors to use.

Keep in mind, this is just one of many different variations of a mob area. The ideal layout for your mobbing area is reliant on the space you have available, the number of people in the mob, and the specific equipment you're using.

Equipment You'll Need

It should come as no surprise that when moving your mob into a more permanent work area you're still going to need a large screen and a whiteboard, just as described for [mobbing in meeting rooms on page ?](#)—the only difference is you can be a little more picky on the specs to make sure you get an ideal experience.

Screens

Select screens that have a viewing space that everyone in the mob can see comfortably at the same time. Comfortable means that everyone should have their own personal space respected and that they can read the code on the screens without straining their eyes.

1. <https://www.rtings.com/tv/reviews/by-size/size-to-distance-relationship>

Did you notice I wrote “screens” in the plural sense? With two screens, you can use one for the terminal or browser windows, and the other screen for the editor and code. With three screens you can do even more!

While you’re shopping for screens, larger is often better. Larger screens tend to have a larger viewing distance, which means you can have more people in the front row in the mob. When people are seated behind others, those in the back row often get blocked, resulting in a second-class experience.

While the size of your screens are important, the resolution of the screens is just as important; therefore, aim for high-resolution screens.

You may be wondering about projectors. If given a choice, prefer TVs and monitors over projectors; the challenge with projectors is that you need to project the image against something which reduces your options of where you can put the mob.



Joe asks:

What Size Screens Should I Get?

You may notice I’m avoiding giving you a specific size. Because screen technology is advancing at such a rapid rate, whatever specific hardware details I suggest would likely be out-dated almost instantly. With that disclaimer, 60" 4K screens worked well for our four-person mob.

Whiteboard

Whiteboards are one of the most important tools you need in your mobbing area. I cannot stress this enough. With whiteboards, you can outline approaches to the problem you’re working on and write down things you don’t want the mob to forget. Interestingly, you don’t need a huge whiteboard to do this—a simple, portable flip chart is often adequate.

When selecting a whiteboard, keep in mind that often you’ll be seated when using it. Given an option, prefer whiteboards that have a stable base and that you can adjust so you can comfortably use and read while seated.

Don’t make the mistake of thinking things will be fine because you have a whiteboard nearby. If the mob needs to move in order to have a discussion at the whiteboard, it’s not close enough.

Table

It may sound like a simple thing, but the table has a big impact on your mobbing experience. If it's the wrong shape or size, or set at an awkward height, you're going to have a poor mobbing experience. So, how do you choose the right table?

Going back to the guiding principles, remember movable is better than fixed. Having a table you can move is a big win because you never know when you may need to move your entire mob layout, including the table, to another room.

Something else to consider is adjustable height. If possible, invest in an electric adjustable height table. Being able to adjust the height based on the needs of the current typist—within seconds, thanks to a button—leads to a superior experience for everyone. As standing desks grow in popularity, more people are wanting the option of being able to stand while mobbing, so keep that in mind too.

Also, try to get a table that has built-in USB and electric outlets. Being able to plug devices ad hoc into power—right at the table—proves to be useful, especially when someone needs to work off their own laptop or device, independently, while still being in the mob area.

Finally, prefer rectangular tables over curved or half moon tables. A curved or half moon table angles the people at the table to face each other, and that's not what you want in mobbing; everyone should be facing the screen. With a curved table, some people will need to turn their head slightly to see the screen, which can cause neck strain over time.

Dedicated Mob Machine

In *Disrupting the Mob When Leaving and Joining It*, on page ? you saw how to leave and rejoin the mob without disrupting flow. While this is great, what you'll soon discover is that if you need to pop out for a meeting, and the mob is using your laptop, problems may arise if you need to take your machine with you, disrupting the flow as the mob switches to someone else's machine. Having a dedicated mob machine solves this problem.

A dedicated mob machine is a development machine that is permanently set up in your mobbing area. Not only does a dedicated machine remove the disruption of swapping machines when someone leaves the mob, it also gives you a consistent development experience when mobbing.

The mob machine should be in a working state, ready for development—that means having all projects and tooling installed and up to date. Your mob machine should also be as powerful as any other developer machine; do not make it last year’s hardware (time goes by slowly when a mob is waiting for something to finish running).

While having a dedicated mob machine makes it easier for people to leave and rejoin the mob, be careful that this does not become the only machine where development happens. Individual team members should still be able to do development on their own machines and work independently, if needed.

Mouse and Keyboards

In [*Configuring a Machine for Mobbing*, on page ?](#) you read about the challenges of using the laptop keyboard for your first few mobbing sessions. Different laptops have different layouts which can cause chaos for those not familiar with them. Instead of using the laptop keyboard, use a standard external keyboard.

When moving mobbing into your normal work area, invest in a decent mouse and keyboard that everyone in the mob can use. Keep these permanently in the mobbing area and plugged into the mob machine.

If you decide to use a wired keyboard, make sure that the cable on the keyboard is sufficiently long—you should be able to move the keyboard to everyone in the mob without a fuss.

Many developers have a specific keyboard that they like to use. To cater for this it’s worth getting an external multi-port USB hub plugged into your mob machine that is easily accessible to everyone in the mob. The USB hub proves handy should someone want to use their own custom keyboard.

One of the minor challenges of mobbing is managing the cables of the many peripherals that accumulate in the mobbing area. By the end of an aggressive mobbing session, it can look like a bird’s nest of cables.

Where possible, keep peripherals wireless but don’t compromise on the development experience. For instance, many wireless keyboards are inferior to their wired counterparts; yet, despite the potential of a wired keyboard becoming tangled within a nest of cables, they’re usually the better option. Luckily, wireless mice don’t seem to suffer the same fate.

Adjusting to Open-Plan Offices

If you're in an open-plan office, expect a few challenges around adjusting your workplace for regular mobbing.

First, you need to make a space large enough for your mobbing area; often, finding the space is the biggest challenge with mobbing in open plan offices. To figure out how much space you need, look at how much space you used when you were mobbing in a meeting room, and go with that.

Open-plan offices are filled with cubicles with fixed network cables, the antithesis to mobbing areas; luckily cubicles are modular, which makes them easy to remove, and WiFi is fast enough for us to no longer need fixed network cables.

Once you have the space cleared and cabling issues sorted out, the next challenge is managing the noise.

Managing the Noise

Mobs are louder than people pairing or working solo. People are interacting, they're talking about code, about different approaches—when a mob begins to really work, it gets louder. When this happens, especially in an open-plan office, people nearest to the mob either complain or they get louder to compensate for the noise. Ever been to a crowded restaurant?

To help deal with increasing noise levels, be proactive. Talk with those who are near the mob area to find out if they think noise will be an issue. Preemptively chatting to non-mobbers about potential noise problems—before they become problems—can be the difference between non-mobbers working with you or against you.

One way to reduce the impact of noise is getting portable sound barriers and placing them around the mobbing area. Not only does this reduce the noise, with enough of them, you can also create a temporary insulated space for mobbing.

No Noise Policy

If your open-plan office has a “no noise” policy, you'll need to get the policy changed or look at alternatives, like moving to a team room—mobs cannot work in silence.

Using a Team Room

The ideal setup for mobbing is a team room²—a dedicated space away from other teams where the mob has full control over their area³ with the freedom to configure it how they like.

Many of the challenges with bringing mobbing into your normal workspace fall away when you have a team room. Often, the only challenge left is figuring out how you're going to move things around to fit the screen in the room.

Although team rooms are great, there's one benefit you lose by using them: casual contributions. In open-plan offices, it's not uncommon for someone to pass by, notice what the mob is working on, and then make a valuable contribution—something that's not possible when you're in a team room. While there are benefits from casual contributions, given the choice between a team room or adapting your open-plan office, take the team room.

A Quick Word on Costs

Bringing regular mobbing into your work area will have costs associated with it. Until now, all you needed from your manager was their support to try something new. But to really get the most out of the mob, you'll need help from your manager to implement some of the changes outlined in this chapter. Rest assured, however, the impact these changes can have on your mob is worth the investment and conversation.

There's a wonderful British saying, "Penny wise, pound foolish," which means to be extremely careful about small amounts of money, and not careful enough about larger amounts of money. Many organizations are penny wise but pound foolish when looking at the costs of bringing mobbing into their work area—the costs of adjusting your workplace for regular mobbing are minor compared to the cost of people not being able to work at their best.

When motivating budget, keep the focus on the what's important. If Mob Programming is making people in your development team more productive, then the savings in productivity far outweigh the costs of the additional equipment. It helps to frame budget conversations in that context.

2. <http://bit.ly/Agile-Team-Room>

3. <https://martinfowler.com/bliki/TeamRoom.html>

What's Next?

In this chapter, you saw some of the adjustments you can make to your workplace to make regular mobbing comfortable. You also learned about the guiding principles and the typical equipment needed, such as:

- Large screens
- Whiteboard
- Mob table
- Dedicated mob machine
- External multi port USB hub
- Wireless mouse
- Assortment of external keyboards
- Extra chairs for visitors
- Sound dividers (if in an open-plan office)

With a workplace that's conducive to regular mobbing, you might think people would be drawn to it. But that's not always the case. In the next chapter, you'll learn how to encourage and prepare your team to mob regularly.