White Paper
Observing the Process:
How to see and document what happens on the ground

WP0079 | June 2013

Adrian Reed

Adrian Reed is a Consulting Lead Business Analyst who is passionate about the analysis profession. He is Principal Consultant and Director at Blackmetric Business Solutions (*www.blackmetric. co.uk*), where he provides business analysis consultancy and training solutions to a range of clients in varying industries. He is a director of the UK chapter of the IIBA, and a member of the team that runs Pragnalysis.com (a site providing a free BA toolkit including templates). Adrian is a true advocate of the analysis profession, and is constantly looking for ways of promoting the value that good analysis can bring.

You can read Adrian's blog at *www.adrianreed.co.uk* and follow him on Twitter *@UKAdrianReed*

Understanding an 'as is' process can be challenging. Often an end-to-end process spans multiple teams in different locations, and it can be extremely difficult to capture an appropriate level of detail whilst simultaneously making sure that the bigger picture, macro-level view is correct. On top of this, there's the hidden issue of 'tacit knowledge': Knowledge that is unwritten and is stored only in our stakeholders' heads – the type of knowledge that is often taken for granted and might not be explicitly mentioned. Throw in the political wrangling and "land grab" that often ensues in large corporate organizations and the complexity increases further.

When wanting to understand how a process works, generally techniques such as stakeholder interviews and workshops are used. These are both excellent techniques, however there's a danger that they will only expose part of the picture. It's important that we find ways of uncovering the 'tacit knowledge' that our stakeholders are privy to. In this paper, we'll explore how observation, can be used to supplement other elicitation techniques. We'll also examine why observation is so crucial.

The case for observation:

Challenge 1:
What is written isn't always what happens

I remember working on a project some years ago where a small team of analysts needed to map out the business processes within a large Service Centre. A key IT system was to be upgraded, and the project team needed to know the impact on the existing processes, as well as deriving potential requirements for the new IT system itself. In a project meeting, one of the Service Centre managers confirmed that most of the existing processes and procedures were already documented. Not only this, the documents were reasonably up-to-date and included detailed business rules as well. This discovery was like gold dust – however, it caused a rather unexpected outcome. The project manager immediately felt the team could rush ahead – why carry out further, frivolous analysis when the processes were already documented? Surely it would be possible to push ahead and rely on these extensive documents? It would certainly save time.

Written documentation doesn't always reflect what happens in reality. To illustrate this further, let's take ourselves outside of an organizational setting. Imagine we wanted to make a change to the road network, and in order to do so we wanted to know how people drive their cars. We could take a copy of the Highway Code, and assume this documents how people drive. There are mandatory speed limits, road markings and specific mandated ways that a driver should behave – but as anyone who has driven will attest, not all drivers follow the rules. People sometimes exceed the speed limits, and sometimes people find illegal shortcuts to get to their destination quicker. The same is true in organizations: Written processes, procedures and rules are often used as a guideline, and all manner of workarounds and short-cuts emerge around the edges. If the process wasn't right in the first place, you may find that end-users skip the occasional "red light" to get to their destination quicker – and often this is done with the best of intentions (to provide better or quicker service to the customer) so it would be foolhardy to ignore.

The assertion to continue and rely on existing process documentation is logical; however experience tells us that this logic is often flawed. The reality is that what is written in process documents isn't always what happens on the ground. In this example, we were able to convince the management team that there was merit in carrying out further investigation. Upon spending time with the teams at the "coal face", it was found that the codified processes were broadly being followed – however each team had created its own workarounds (as the process and the IT system had never been fully "fit for purpose" from the perspective of the users). This included the use of home-grown "End-User Computing" applications built in Access and Excel which the end users had created to fill the functional gaps that the original systems and processes did not address.

Challenge 2:
Experts often forget how much they know

Interviews and workshops are excellent techniques for eliciting information about existing processes and potential requirements for new processes or other solution components. However, as human

Imagine describing the necessary steps to make a cup of tea to someone who has never seen or heard of tea before. You might describe how you fill a kettle up with water; add a tea-bag to the cup etc. You might produce a diagram like the one below.

When thinking about an everyday activity like making a cup of tea, it's quite possible you'd forget to mention key parts of the procedure. You might not think to mention that it's necessary to check that the kettle is plugged in to the mains, and therefore there's an associated requirement that the kettle must be used near an electrical socket. You might also forget to mention exceptional steps like what to do if all your cups are in the dishwasher or what happens if there aren't any tea-bags left. This is a rather basic example, but it demonstrates the point. We all know more than we think, and getting this information out of stakeholders heads is a real challenge. We can then add this information to our process model, as well as ensuring it is fed into any other requirements artefacts that we are creating.
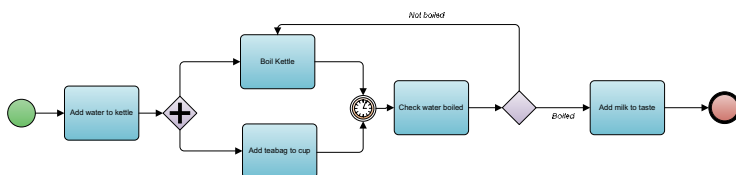

Figure 1: Example diagram produced by a Business Analyst

beings, we often forget how much we know. The stakeholders we interview might have been doing the job for 20 years – to them the process they are operating is second nature. They may hold a wealth of tacit knowledge in their head that doesn't immediately expose itself through interviews or workshops. We can mitigate this risk by asking probing questions, but by simply going and observing the process we'll get a much better view of any steps, exceptions or quirks which they've forgotten to mention.

There are a number of other benefits of observation, not least that it enables us to get a sense of the atmosphere in the business area we're examining. We might sense political tension that we'll need to keep in mind throughout the project. Not only this, but when done correctly, observation is a useful way of building end user buy-in to a project. By spending time truly understand an end user's 'world' we can understanding the parts of the systems and processes that cause the most pain. This means that not only should the end solution be better matched to the user and business' real needs, but also that the end users are more likely to adopt it as they have been involved in the process of creating it.

Practical tips: How to observe processes "on the ground"

As outlined in the section above, we can gain a wealth of useful and contextual information about how processes work by going and observing them. So how can we undertake this observation? The most appropriate way to observe will vary depending on your organizational culture and industry. For example, observing someone in a steel plant is very different to observing someone in a call centre. Whilst by no means an exhaustive list, the following considerations and techniques may help:

Get buy-in and allay fears

End-users may fear observation. They might assume you are observing their personal working practices rather than the process itself, and they might fear that your objective is to make job cuts. Assuming this isn't your intention, ensure that you make them feel at ease. Explain that you

are trying to understand the work and the peaks and troughs so that the process can be improved to make their work easier. The important point here is to be open and transparent, whilst also letting the user know what's in it for them. If you are planning to take notes, let the person you are observing know in advance, and you may want to offer to send them a copy afterwards. It can often help if a manager introduces you or sets the context.

Who and when

It can be difficult to decide who to observe and when to observe them. This will vary depending on the organizational context; however it's helpful to try to observe a variety of users (even if they are all on the same team). You might find that different people conduct the same process differently! This is incredibly valuable to know, it may help you understand the "essence" of the process which will be useful if you are later intending to abstract away the detail and draw up the process at a logical level of abstraction. It's also useful to know if there are any best-practices that have been adopted amongst the team.

It's certainly beneficial to observe users for each stage of the process in which you're interested. You might also want to consider timing; for how long should you observe them (All day? An hour?) This will entirely depend on the nature of the work being undertaken, and it's also important to consider the burden that observation places on the employee that we're observing. In some instances, it might be better to observe for short periods over a period of a few days (rather than spending two days solid), to avoid causing too much inconvenience. You'll also want to consider the timeliness of the observation – for example if you were to observe a finance team near month-end you might see a particular peak of work. It can help to speak to a manager or Subject Matter Expert to decide on the timing of observation, and you might find that observing more than once is required. It is often useful to observe both during the peaks and the troughs; you might find that in times of pressure the process varies, or different types of exceptions occur.

Three observation types: Silent, "Show & Tell" and "Do"

There is no definitively "right" way to observe a user. However, it often helps to start by observing in silence. With permission, simply watch the user carry out their task, and get a sense for how the work flows. Once you have seen a representative sample, it can be useful to switch to "Show & Tell" observation. In this form of observation, you ask the end-user to carry out their task but say out loud what it is that they are doing:

"I am picking up a piece of post from the yellow post tray"

"I am logging the post in the XYZ system"

"I'm entering the client reference number…."

Etc…

After observing a few pieces of work, you might want to start interjecting with questions. Using the example above, you might ask "Why are you picking up post from the yellow post tray? Do you ever pick up post from the blue post tray?" Or you might ask "Where does the post come from, and where does it go when you've finished processing it?" This is where you really start to gain knowledge, by probing around specific issues and delving into that un-codified tacit knowledge. Four particularly useful questions are:

- **"How do you know when to do this?":** This exposes the trigger, business event, or contributing task that leads to this task happening.

- **"What happens immediately before you do this, and who does it?":** This helps us clarify more about the trigger, business event or contributing task and also helps us establish who to speak to.

- **"What happens next? Who does it?":** This helps us identify the next task in the process.

- **"Does this ever happen differently? If so, why and how?":** This helps us establish any exceptions or alternative flows.

- **"Are there ever times when you can't complete this? Then what happens?":** This helps us establish if the work ever "pauses" or reaches a pending state. This might suggest that there are problems with any preceding tasks/processes; or perhaps that the employee undertaking this task doesn't have access to the right tools or information.

Finally, depending on the nature of the work, you might want to actually do the job yourself, under supervision. This is an excellent way of thoroughly checking your understanding of the subtleties of the work, but clearly it won't be appropriate in all circumstances.

Validate regularly

As you build up a picture of the process, it's worth speaking to the subject matter experts and users often to make sure there's a clear and correct understanding. It's important that any process models that are created are understood by all key stakeholder groups, so agreeing on a standard notation is essential. Using an appropriate tool, which enables close collaborative working between architects and stakeholders is particularly useful. Using a BPMN Visio template, such as the one that Orbus provide can also help to standardise notation across a project team.

Conclusion

When examining or considering improvements/automation to an existing process, it can be tempting to rely solely on existing documentation. However, existing documentation rarely tells the whole story, and observation can really help, particularly when it is used alongside other techniques such as workshops and interviewing. The act of observation helps us understand the context in which the work is carried out and helps us to expose some of the tacit knowledge that exists in our stakeholders' heads. It also helps us understand the environment in which our users work and is a powerful way of building rapport. It leads to a better understanding and ultimately a better grasp of the process.

orbus
software