Staffing and Teamwork – Tug of War Analogy

There are a lot of issues that relate to staffing levels and how individuals work as teams. However, it can be difficult to discuss them as abstract ideas. Using an analogy based on 'tug of war,' a number of staffing and teamwork scenarios are discussed. Can bigger teams always achieve more than smaller ones? Does everyone have to be hands on? How do technical and engineering solutions fit in?

Is bigger better?

It is easy to assume that a larger team can always do more than a smaller team.

In tug-of-war it seems likely that the team with two people will beat the team with one. For any average group of people that is probably the case. But equally there must be questions. If the lone person is very large and has good technique, whilst the other two are small and inexperienced the result may not be so clear cut. This is a good place to start with our thoughts on team work.

All things being equal

With equal numbers of people in each team, and equal capability it is reasonable to assume that their performance will be very similar.
This is arguably how many tug-of-war bouts are arranged. But we do know that one side usually wins in the end. This is because nothing is ever totally equal, and there can be events that cause enough disturbance for one side to fail (e.g. someone slipping or tripping).

**Having something to do**

So the number of a people in a team is not always the defining factor. Sometimes this is because the extra people are not able to make a worthwhile contribution because there is nothing for them to do. In the tug-of-war analogy this would be a situation where the rope is not long enough to allow everyone to take part. The extras would have to stand by and watch.

Actually, having more people than jobs can impact on the team's performance in a number of ways. A positive contribution can be made if the spares are able to provide cover so that someone can take a break. In tug-of-war this will prevent physical fatigue. In an industrial setting it can reduce physical and mental fatigue, but also provides the opportunity for people to attend training and other events that have long term benefits to the business. Also, it reduces the vulnerability to unexpected absence (e.g. sickness).

However, having more people than jobs can have a negative impact. In the tug-of-war picture above, it may be the case that the extra people are simply in the way. In an industrial setting having too many people can reduce the opportunity for everyone to be involved in tasks, and so their competence is likely to degrade
over time. There can be resentment, especially if some people are very busy and others have nothing to do. This is all on top of the obvious cost issues of having more people than necessary. Also, it does introduce the requirement for handover, which is known problem area in industry.

**Being able to work together**

The case has already been made that says the size of a team does not necessarily define its performance. The capability of the team members, and their ability to work together can often have a greater effect.

In tug-of-war, someone pulling the wrong way is clearly going to have a major negative effect on their team’s performance. The same is true in an industrial setting where competence can be an issue. If there are people in a team who are not effective at their own job it creates extra workload for the others who may be trying to provide training and to make up the workload gap. Another reason why people do not work as part of the team can be poor communication. A competent person’s contribution to the team is going to significantly limited if they have been not told what the team’s objectives are or how they are able to make a contribution.

**The role of team leader**

Do things get easier as teams get bigger? One of the questions is whether a leader of some sort is required. A team of one person is probably not a team, and there is rarely in any value in a team of two having one as being superior to the other. However, three or more is probably where team dynamics start to work and leadership in some form may have its benefits.
Two options are shown here for the tug-of-war team. Probably the best location for the team leader is at the back, where they can see how their team members are performing. But the back position is the 'anchor' of the team, and probably the most important from a pulling perspective. This is OK if your best anchor is also your best leader, but that will not always be the case. Equally, putting the leader at the front of the team is probably unhelpful because they will only get limited information about how well their team are performing. As with many things, there is often some compromise.

Similar issues arise in an industrial setting. Often someone good at their job is 'made up' to team leader because they are considered to be the best person in the team. Sometimes this works, but being a leader usually requires different skills, aptitudes and interests. The result can be very negative. The individual is sometimes demotivated because they are taken away from the job they enjoy to do something they find difficult. Sometimes the team suffers because the person given the leadership role continues with their current hands-on role to the detriment of team leadership.

**The role of supervisor or coach**

It is tempting to think that it is the number of people with hands-on roles that defines a team's performance. However, there are advantages to having people in a position to watch the team in action in order to identify opportunities to improve and to deal with performance problems.
For tug-of-war the non-hands-on role is likely to be a coach. They can watch the team, identify who is doing well and who needs to improve their fitness or skills, and look out for problems that the team members may not see because they are concentrating on pulling the rope. In industry the role is a supervisor, although over recent years other terms have been used to describe similar roles.

There is no doubt that being a coach or supervisor is not easy, and not something everyone can do well. If they are good they can have a very positive impact on the team, but if they are less capable the team will suffer. One question that is difficult to answer is whether they should maintain some hands on role? Should the rope be long enough so that the coach can lend a hand if his/her team is losing? Should the supervisor be expected to help out if his/her team members are starting to get overloaded? There can be some advantages in keeping this door open, including reminding them what the job is like, which may help them to make better decisions for the team. However, it is easy for them to get 'sucked in,' causing them to lose sight of the bigger issues. Whilst there can be a short term gain, it may cause problems over the longer term.

**Protecting against failure**

There will always be the challenge about whether a team could get buy with less members. One justification is that, if the team can't cope there are devices in place that stop catastrophe. This may be like tying the tug-of-war rope to an immovable object, or in industry things like automatic detection and shutdown equipment that will put things into a safe state if something goes wrong.

Of course it is very sensible to look for ways to prevent catastrophe. OK, so it might be banned in a tug-of-war competition but in industry automatic protection should always be considered, no matter how unlikely it is that the team will be overloaded. But we do need to think what it is doing. In reality, these devices do not make much of a positive contribution, just prevent a totally negative outcome. You are not going to lose, but equally you are not going to win. Therefore, these devices do not really impact on the team dynamics to any great affect.
**Automation**

The final scenario in this series considers using technology to do away with some human actions. It is suggested that the tug of war team may make use of a winch. In industry it is likely to be automated systems that functions with minimal human involvement.

![Tug-of-war](image)

Again, using a winch is probably frowned upon in tug-of-war, but new technology is certainly leading to staffing reductions in industry. However, automation can cause problems and needs to be implemented carefully.

Issues to consider when using technology to replace people include:

- How reliable is the equipment?
- Can it be relied on, and what happens if it fails?
- How much maintenance does it require?
- Does this outweigh the operational savings?
- What impact does it have on the people that stay?
- If they are left to only monitor the machine, will they stay motivated and competent over the longer term?

This is definitely not presented as a case to not automate, but simply a reminder to tread carefully.

**Conclusions**

The analogy seems to work well and illustrate quite a number of the issues that are encountered when considering staffing and team work. It certainly shows that it is not just about the number of people and highlights that there are many variables that need to be considered.
In simple terms it is often better to have a small team made up of highly competent people who can work together, instead of more people who do not know what they are doing. And, whilst teams can work with minimum staffing levels over the shorter term this arrangement is likely impact longer term performance.

Actually, staffing levels should probably be seen as more dynamic, changing continually in light of events and to ensure sustainability.

**Image source**

The images used in this article have been adapted from the 'Olympic Pictograms' available from http://commons.wikimedia.org