

Mathematics and Computing: Level 2 M253 Team working in distributed environments

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M253 Resource Sheet

Team formation

1 Overview

How do teams form? Are there any common patterns in the way in which they develop? It turns out there are. In this Resource Sheet we describe one of the more widely know models of team formation and development (which has become known as Tuckman's model, after the person who described it). This model is also known by the stages of team development that it identifies: forming, storming, norming, performing and adjourning.

2 Introduction

Teams often come together in order to carry out a project or undertake a task that is too large, complex, or would take too long for one person to complete. While the team may be involved in producing a finished product or an end result, it can also be thought of as being engaged in a process that has a beginning, middle and usually an end. The team is formed at the beginning of the project, it carries out the project and, at the end of the project, it may or may not be disbanded. Teams rarely come into being fully fledged; they usually proceed through a number of stages of development before they function well together.

These developmental stages can take some time to pass through before a group of disparate individuals begins to operate effectively together as a team. Unfortunately, time is something that many teams do not have. Teams may have tight delivery deadlines imposed upon them, leaving little spare time for preliminary 'ice-breaking' activities to help team members to get to know one another during the initial stages of team development. In distributed teams, this lack of time is particularly unfortunate since it has been found that such teams often take longer to develop than teams that are co-located or can meet face-to-face (Lipnack and Stamps 2000). One of the reasons why this is the case has to do with the nature of the communication mechanisms used (electronic communication rather than face-to-face meetings, often using e-mail instead of telephone calls or video-conferencing). Another reason why distributed teams can take a long time to develop is to do with the fact that team members may be juggling participation in the team with their normal duties and other competing priorities, rather than being assigned to a particular team as a full-time member.

3 Stages in the development of teams

Many teams appear to develop in the same way and to follow a predictable pattern of formation and growth. As a member of a team, if you know what the pattern is and can recognise the features of the developmental process in your own team, then you are in a strong position to be able to do something about it – if, indeed, you need to. Firstly, you can understand what is going on – the growing pains of your team; secondly, you can take appropriate action to help your team to move on to the next stage of growth; thirdly, you can try to avoid doing anything inappropriate to upset the development of your team!

In 1965 Tuckman published a paper in which he identified and characterised four stages of team development (Tuckman 1965). Later, Tuckman and other authors added a fifth stage to the end of the team development lifecycle (Tuckman and Jensen 1977). Tuckman's model formalises the process of team development and gives names to the different developmental stages. These stages have been given other names by other authors, but they are widely recognised as being ones through which many teams pass. In the remainder of this section, Tuckman's model of the development of teams is described.

Forming

In the first stage of team development, team members meet (either in person or electronically) and begin to get to know each other. Often, team members will begin to establish the ground rules for how the team is to operate and how they will work on the task that the team has been assigned. It is tempting to skip or rush this stage in team development because it does not appear to contribute directly to the project outcomes. However, you should recall that this 'forming' stage is an important part of the team development process.

Features of this stage

- Team members try to get to know each other. In co-located teams, this
 often takes the form of a workshop with ice-breaking and social activities
 that are designed to help the team to get to know one other. Facilitators
 with experience of building teams may be brought in to run these
 introductory workshops.
- The team attempts to understand the task or project they have been assigned. This understanding will include trying to scope and define the boundaries to the task.
- Individuals within the team will be trying to work out what role they want to play in the team, and what roles they want other team members to play.
 For example, 'who do I want to lead the team? Who do I not want to lead the team?'
- As well as establishing what roles team members will take on, the team will also begin to establish some rules by which the team will operate.

Advice for a distributed team

• Individually, you may experience some anxiety and uncertainty over what the project involves, what the other team members will be like, and frustration over the slow start to the project. Often, there is a feeling of wasted time since there may appear to be little progress on the task that the team has been set. But please be patient. It takes time for people to get to know one another, to begin working with one another, and to build up levels of trust with one another.

Storming

As its name suggests, this stage in team formation can be characterised by spirited discussions and even arguments amongst the team members. While the storming stage can be difficult, it is sometimes the case that intense discussion during this phase of team development leads to more productive working later in the project. In other words, the team has worked out its differences early on and has developed mechanisms for managing discussions and arriving at satisfactory conclusions if disagreements occur.

Features of this stage

- A feeling of lack of progress on the task can trigger this phase of team development. Often, the first deadline that the team has to meet is looming and team members realise that the task is harder than they thought. This puts pressure on the team and the initial politeness and diffidence in addressing one another is lost.
- Sometimes, differences of opinion over the task can arise, and individual's
 personalities can clash as team members overcome their tentativeness
 and begin to assert themselves. Team members can even become hostile
 as a way of expressing their individuality in a reaction against the team
 culture that is beginning to form.
- Discussion often centres on team process issues, such as team rules (how is the team going to operate?) and team roles (who is in charge and who is going to do what?)
- There may not be much progress on the project!

Advice for a distributed team

- In an online, shared discussion forum such as a course or team conference, it is easy for members who feel that they are on the receiving end of unwarranted or personal criticism to become defensive. Unfortunately, this can lead to them withdrawing from the discussion until the debate has become less heated and less personal. In order to draw them back in, it may require a personal, private approach (via e-mail or a telephone call rather than in an open discussion forum) to bring them back into contributing to the team.
- When communicating by electronic means (particularly if you cannot hear or see the recipient), you lose much of the feedback about how your message is being received, since a person's body language and tone of voice are very expressive and reveal much about their emotional state. Therefore it is important to remember the advice given elsewhere about how to communicate effectively (often called 'netiquette' short for network etiquette). There are some resources in the Further resources section below that serve as a useful reminder of some points of netiquette.

Normina

When teams are over the storming stage they often breathe a collective sigh of relief since the team has begun the transition from being a group of individuals to becoming members of a cohesive team. A team identity has established itself and disagreements between team members are largely settled.

Features of this stage

• The team should reach agreement upon the process issues that it may have begun debating in the previous phase of team development. Specifically, the team should agree the ways of working and interacting with each other (team rules), and individual team members should agree to the roles they are going to take on in the team and the tasks they will perform (team roles).

- The team also reaches agreement upon the nature of the task and how it
 is going to tackle it. With its growing sense of identity and purpose, the
 task 'belongs' to the team and is not something that has been imposed
 upon it.
- There is real progress upon the task that the team has been assigned.

Advice for a distributed team

- A useful team rule to establish is the frequency with which team members should check the team conference and their personal e-mail for messages.
 We recommend at least once a week.
- It is also useful to establish when individual team members will be able to contribute to the team – their typical working patterns. This helps other team members to know when and how to contact each other, potentially reducing discord within the team.

Performing

Having completed, or passed through the previous three stages, the team will be working productively together. The team members will be getting on with the task, producing results and there will be good working relationships within the team.

Features of this stage

- The focus of the team has shifted from team process issues to the task that the team is undertaking.
- Individuals within the team know how to work with each other and how the team as a whole operates.
- The team is in a much better position to solve problems as they arise, rather than being thrown into disarray by unanticipated problems.
- There is substantial progress towards the final project goals.

Advice for a distributed team

• In a distributed team, you lack many of the informal cues that are important to keeping a team working productively and easily together – such as how busy someone is, what they are working on, and when they might be on holiday, ill, or otherwise unable to contribute to the team. Therefore, in a distributed team, you have to give rather more explicit indications of how you are progressing in order to replace these informal cues. For example, it is helpful to your fellow team members to let them know when you will be unable to work on the project because of holidays or other time commitments.

Adjourning

This, the final stage of team development, is sometimes called 'Mourning'. While it was not in Tuckman's original (1965) proposal, it is widely recognised as being an important stage in the lifecycle of a team, as team members anticipate the project coming to an end and the team being disbanded.

Features of this stage

- The team may become even more effective as it makes a concerted effort
 to complete the task before the final deadline. However, there is a
 possibility that the team could become less effective as members regret
 the end of the task and the breaking up of relationships that have formed
 between the members of the team.
- The task is completed, the project comes to an end and the team disbands.

Advice for a distributed team

 In order to overcome this stage, try to identify some means of moving on, of keeping in touch and of keeping working relationships going – perhaps by something as simple as agreeing to keep in contact by e-mail.

4 Implications of the team development model

You may have formed the impression that rapid progress upon the team's tasks does not occur until the norming stage. This is captured in Figure 1, which shows how team performance (in terms of progress towards the final goal, plotted on the *y*-axis) varies according to the stage of development of the team (plotted on the *x*-axis in terms of time). The graph is intended to give you an impression of how teams perform, so it should not be interpreted too literally. In particular, teams do not spend an equal length of time at each stage of development. In some teams, team performance may even drop during the storming stage as the team undergoes the sometimes painful transition from being a group of collaborating individuals to becoming a cohesive team (Becker 2003).

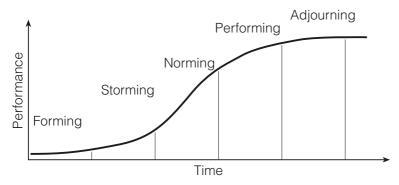


Figure 1 The S-shaped curve of team development. (Adapted from Lipnack & Stamps 2003.)

Tuckman's model of team development has a number of other implications and consequences of which it is useful to be aware.

- The duration and intensity of the different stages can vary between teams.
 So some teams may have a very smooth and rapid passage through the first few stages of the model whereas others may have a much more difficult passage.
- Teams usually have to progress through the earlier stages of development in order to reach the performing stage. So do not become discouraged if your team does not work too well at first.
- It is possible for a team to return to a previous stage of development. This
 may happen if new and significant issues arise in the team, or if team
 members leave or new members join the team.
- The model has been presented in terms of a series of discrete, identifiable stages. However, the stages may merge into one another or be repeated as issues recur or new ones emerge.

From the above discussion it would be easy to think that you need to manage the process of team formation by actively intervening if the team does not appear to be moving on to the next stage of development. A more passive approach – of letting the team evolve by focusing attention and energy on the team task – is often more effective. It has even been found that teams that devote excessive attention to their own development are less productive and enjoyable to work in than those that do not. Therefore, the skill in facilitating team development is to know when, how, and if at all, to intervene in building the team.

5 The development of distributed teams

You will have seen in Section 3 that we have tried to give some general advice and guidance on how distributed teams develop, since the model was developed to describe the formation of teams that met and worked predominantly face-to-face rather than electronically. So how well does Tuckman's model apply to the development of distributed teams? At present there is no general agreement on how the model should be modified (if at all) to take account of distributed teams. Since distributed team working is a recent phenomenon, this is an active area of research. Most authors agree, however, that distributed teams will develop through a number of stages – but that the stages might not be as well defined as is implied by Tuckman's model.

6 Summary

Understanding the stages by which teams develop can help a team from over-reacting to normal problems that arise in teams as members learn to work together, cooperate and collaborate in completing the task that they have been set. But in common with other situations in which you are working with people, patience is essential.

7 Further resources

The JISC infoKit on Project Management provides a good summary of Tuckman's team development model. It can be found at:

http://www.jiscinfonet.ac.uk/InfoKits/project-management/index html

The OU web site PC4Study has a section on online forums. It can be found at:

http://www.open.ac.uk/pc4study/communicating/online-forums.php

You might like to look at the following books. Both of them describe Tuckman's model, although Salmon uses a rather different terminology to describe the way in which teams form and develop in online conferences.

Heller, R. (1998) *Managing Teams*. Dorling Kindersley, London. (Also available in the *Essential Manager's Manual* by R. Heller and T. Hindle (1998) Dorling Kindersley, London.)

Salmon, G. (2000). *E-Moderating: The Key to Teaching and Learning Online*. Kogan Page, London.

8 References

- Becker, J. D. (2003) 'Collaborative technologies and virtual teams: which is more important—the 'technology' or the 'team'?' *Decision Line* **34**(4) 8–10.
- Lipnack, J. and Stamps, J. (2000) *Virtual Teams: Reaching Across Space, Time, and Organizations with Technology.* 2nd edn. Wiley, New York.
- Tuckman, B. (1965) 'Developmental sequence in small groups'. *Psychological Bulletin* **63** 384–399.
- Tuckman, B. & Jensen, M. (1977) 'Stages of small group development revisited'. *Groups and Organization Studies* **2** 419–427.