

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

**PTR** 

# **M253 Resource Sheet**

# Producing a team response

#### 1 Overview

In this Resource Sheet we discuss some of the issues that you may encounter while producing a team response. Here, we define a team response as an agreed position on an issue or question that the team has been asked to address or research. There are two major stages to producing a team response. First, the team has to reach agreement on the issue, through discussion in electronic forums or face-to-face meetings. Second, the team has to document this team response, usually in the form of a report. In this Resource Sheet, we will not describe the process of investigating the issue and reaching agreement within the team, since we assume that this has already been done. Instead, we will focus on the second stage of the process, and discuss document-preparation issues, such as the coordination and management of different versions of a document, and the reviewing and editing process.

## 2 The steps involved in producing a team response document

There is a fairly well defined sequence of activities that your team will follow when writing a team response document. You will have already engaged in some of these activities, but it is worth summarising the whole process in order that you can situate the document-writing process in its proper context.

- 1 Usually you will begin with a period of open discussion in order to generate ideas and ways of approaching the task that you have been set.
- 2 Armed with this set of ideas and possibilities, team members may have gone away and individually researched these ideas in order to identify the most promising approach, or to provide background information for the team response document.
- 3 You may have come together again to discuss the outcomes of your research in order to agree upon your team's position, and hence what you will record in your team's agreed response document. You should have reached this stage by now.
- 4 Next, your team needs to draft an outline for the document and decide who is going to write which sections of the document.
- Writing the document comes next, followed by cycles of editing and reviewing, until a final, agreed draft of the document emerges.
- 6 The agreed response document has now been completed by the team.

In the remaining sections of this Resource Sheet we will explore some of these issues in more detail.

# 3 Collaborative writing

There are several ways in which the team response document can be written. These methods range from one person writing the whole document on behalf of the team, through a combined effort in which members of the team write different parts of the document, to truly collaborative writing in which several team members work on the text of the report together (Posner and Baecker 1992, Baeker *et al.* 1993).

Which model you choose depends on a number of factors, including the following.

- The size of the response document. Short documents are usually written by one person and reviewed by the rest of the team. In contrast, long documents can often be written faster if different people write different sections of the document. While it does take time to compile a document if different sections are written by different people, there are advantages to be obtained through sharing the task of writing a response document.
- The independence of different parts of the document. If discrete sections can be
  identified then these could be written by different people. Alternatively, if there is
  a lack of independence to different sections of the response document then it is
  possible for the draft to contain overlaps or contradictory statements that must
  be resolved. Resolution of these issues is best carried out by one person who
  can ensure that the report is coherent, consistent and reads with one voice.
- The skills of different team members. While some people have good writing skills, others may have skills in proofreading or graphic design. It is a good idea to make the most of the skills that team members possess in order to expedite production of the response document.

However the response document is prepared, drafts should be reviewed by the whole team in order to ensure that they reflect the collective view of the team (i.e. an agreed team response) and not just the views of the report's authors. In particular, the team must be careful to ensure that no team members are excluded from participating in the review or writing process simply because they are unable to open the document. We will discuss this issue in the Section 3.1.

#### 3.1 Which document format to use?

Your team will probably use a word processor to write the agreed response document, and possibly a spreadsheet or drawing program for any figures you may want to include. Unfortunately, the files in which most word processors store documents are unique to each word processor, which means that one word processor may be unable to read documents created by another word processor. Even worse, one version of a word processor, while being able to open documents created by earlier versions of the program, may be unable to open documents created by a later version. Therefore, you should try to standardise on the same set of software programs, ensuring that everyone in the team can open, edit and save documents created in that format, in order to avoid the problem of incompatibility between different word processors.

You may find it helpful to adopt a two-stage process to the preparation of the response document. First, concentrate on agreeing upon the structure and content of the report and then writing it; do not worry too much about the finer points of style or detailed grammar corrections at this stage. Once the contents of the document have been agreed upon, its presentation can be tidied so that styles are consistently applied, grammar is improved and any remaining spelling errors are corrected. This editorial process is a skilled task, so if anyone in the team already has experience in this area then it would be wise to ask them to edit the document for you.

### 3.2 Document management

Previous experience has shown that your team needs in place procedures (referred to elsewhere as team rules) in order to avoid confusion over which is the correct version of the document, who has made what changes to the document, and so on. Without some management of the document creation, editing and revision process, chaos and confusion can result!

There are several ways in which this can be done. We will discuss two methods here: centralised and round-robin. Other approaches – such as different individuals writing and controlling changes to different sections of the document, or where several people share control of the document – are probably more complex than are needed for the size of documents that you will be writing on this course.

In the centralised approach to document management, one person maintains a master version of the document against which everyone else suggests changes. This person is in overall editorial control of the document, in that they make all the requested changes, and they have to resolve any conflicts in the suggestions for changes that have been requested by other members of the team. One disadvantage of the centralised approach is that team members are unaware of changes that other team members have suggested until a new version of the document is issued for discussion.

In the round-robin approach, team members take it in turns to make changes to the document, passing it on to the next person in the team once they have revised the document to their satisfaction. This overcomes the disadvantage of the centralised approach in that team members are able to see each other's revisions, but it can slow down the process of editing the document considerably. Everyone makes changes to the document sequentially, rather than simultaneously, as in the centralised approach.

We recommend that you adopt the centralised approach to document management, so that one person manages the production of the team response. In this Resource Sheet we have chosen to call this person the *Report Coordinator*.

## 3.3 The role of the Report Coordinator

You will find it helpful if your team nominates one person to be the Report Coordinator. He or she will have responsibility for planning and coordinating the production of the team response document. In consultation with the rest of the team, the Report Coordinator could solicit contributions from other team members or he could write the first draft of the document himself. Next, the Report Coordinator circulates this draft for comment and revision by the rest of the team. Finally, the Report Coordinator has to manage versions of the report as these pass through the stages of editing, review by the team, and further revision before a final draft of the report is produced.

#### 3.4 Version control

When you make a change to a document, you implicitly create another version of the document. Some changes, such as grammatical and spelling corrections, represent improvements upon the previous version of the document. Other changes may alter the content, tone or sense of the document, or its conclusions or recommendations. As you edit the document you may find it useful to keep earlier versions in order to maintain a record of the major changes that you have made. This enables you to return to a previous version of the document if you need to. You can easily distinguish between different versions by incorporating the version number of the document into its name. This is the procedure that I use, so the file that I am currently editing is called Team Response v2.8.doc. Tomorrow I will probably take a copy of this file and work on the new copy, giving it the new name of Team Response v2.9.doc (note the change in version number). It is also useful to ensure that the time and date setting on your computer is correct, since you can use the date you last edited a file to follow the history of a document.

### 3.5 Track changes

Most word processors have a facility to automatically record changes that are made to a document while you are editing it. This facility (called Track Changes in Microsoft Word, or its equivalent in other word processors) is particularly useful when you are collaboratively writing a document, since you can see where someone else has made changes to the document and even who made which changes. So, if the other members of your team are using Microsoft Word and edit the document with Track Changes switched on, the changes they make will be recorded in the document. The Report Coordinator can then review each of these changes in turn and chose to accept or reject them as they see fit.

In a collaborative project, in which several people review each draft of a document, you may find that team members make conflicting changes to the document. If this happens, it is up to one person – usually this will be the Report Coordinator – to reconcile these changes and chose the one that best reflects the agreed viewpoint of the team.

Table 1 on the next page shows an example schedule for how Track Changes can be used by a team to support the collaborative reviewing of a document. (In my experience, it is easier for the Report Coordinator to review the suggestions from each team member in turn, often on a printout of the revised version of the document. Although Microsoft Word gives you the option to simultaneously merge the revised drafts from every team member into one composite document, and then review all the changes together, this option brings with it the potential for considerable confusion and mistakes.)

Table 1 A summary protocol for collaboratively writing a document allowing for two reviews by the whole team.

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Actions by the Report Coordinator	Actions by other team members
The Report Coordinator writes the first draft of the agreed response document (optionally using Track Changes or its equivalent to record his or her own changes to the document).	
The Report Coordinator then circulates the draft for comments by the rest of the team.	
	Team members independently review a copy of the first draft, with Track Changes switched on in order to record the changes that each of them has made to the draft.
	Team members return their commented draft to the Report Coordinator.
The Report Coordinator can either:	
review each set of comments in turn and record the revisions that should be made to the draft in a single, master, revised version of the document;	
or:	
merge all the revised documents into one and review in one go all the changes that have been made by the other members of the team.	
The Report Coordinator then circulates the second draft for comments by the rest of the team.	
	Team members independently review a copy of the second draft, with Track Changes switched on in order to record the changes that each of them has made to the draft.
	Team members return their commented draft to the Report Coordinator.
As before, the Report Coordinator has to reconcile all the comments received from different team members into one agreed final draft document.	
The Report Coordinator publishes the agree response document for everyone to use.	

## 4 An example schedule

Table 2 shows an example schedule for how a team could prepare an agreed response document in the space of one week. The plan assumes that the Report Coordinator is able to devote significant amounts of time over a short timescale, specifically on Friday, Monday and Thursday of the report preparation period (for the compressed timescale) in order to write the first, second and final drafts of the report, respectively. The compressed timescale allows the team to have an opportunity to comment on two drafts and allows them two days to comment on each draft of the agreed response document.

Table 2 An example schedule for writing and commenting on two drafts of a report, as a team activity.

Day	Compressed timescale	Extended timescale
Friday	One member of the team (probably the Resource Coordinator) writes the first draft of the agreed response document and then circulates it.	
Saturday	Other members of the team comment on the draft and send	Team members write different sections of the report and send
Sunday	their comments to the Report Coordinator.	their sections to the Report Coordinator.
Monday	The Report Coordinator merges team members' comments on the first draft of the response document and then writes a second draft.	The Report Coordinator merges the sections they have received from other team members and produces a full draft for circulation.
Tuesday	Team members comment on the second (and final) draft of the document and send any comments they may have to the Report Coordinator.	
Wednesday		
Thursday	The Report Coordinator merges the comments on the second draft and then writes the final draft.	
Friday	The agreed response is ready for submission.	
Saturday		Team members comment on the first complete draft of the report
Sunday		and send their comments to the Report Coordinator.
Monday		The Report Coordinator merges comments on the draft and prepares the final draft of the document.
Tuesday		The agreed response is ready for submission.

You may think that two days is a long time to read and comment on a document that may contain fewer than 1000 words. However, the issue is not so much how long it takes any one person to do the work; rather, it is more to do with the elapsed time that you must allow in order that all team members can find time to comment on the document. For example, is a single weekend long enough for team members who study OU courses at weekends? Is a long weekend of four days (Friday through to Monday) necessary to accommodate those team members who study OU courses during weekdays? The time it will take for team members to comment on drafts of the agreed response document is one of those things that you need to find out and plan for.

Table 2 also shows a slightly more relaxed schedule (the extended timescale) which does two things. First, the initial draft is prepared jointly by team members writing different sections of the response document. Second, the schedule assumes that team members are only available to work at weekends (except for the poor old Report Coordinator, who has to be able to work during the week as well!) This plan is rather more realistic, in that it gives the Report Coordinator more time to prepare the response document – at least, the first complete draft of the document.

You should consider the two schedules to be examples of how you *could* plan writing a response document, rather than exemplars of the way in which you *should* produce it. For example, you could give the Report Coordinator more time by inviting only one round of comments from the team rather than have the team comment upon two drafts of the document. Whatever you do, it is important that you give the team an opportunity to comment on the document since it should represent an *agreed* response by the team (unless the contents of the document have all been agreed in advance, and it is left to the Report Coordinator simply to articulate them in a coherent written form).

You should also note that steps which have been left out of the plan in Table 2 include proofreading the response document. While this can, and often is, done by the Report Coordinator, it can be done by someone else who is less familiar with the document's content. Such a person will often find errors in what the response document actually says, rather than what it is intended that it should say.

## 5 Summary and checklist

In this Resource Sheet we have discussed the various ways in which a team response can be produced. Here are some issues that you might wish to consider within your teams.

- Who is going to coordinate the production of the team response?
- Who is going to write which parts of the team response?
- What is the common software environment that you are going to use for document preparation and production?
- How is the final version of the response document going to be approved by the team?
- Who is going to proofread and add the final polish to the document?

The keys to collaboratively writing an agreed response document are coordination, and choosing someone who has the organisational and writing skills to produce a report on time, according to the specification that you have been given.

#### 6 Further resources

There are many articles and websites that describe the features within Microsoft Word for collaboratively writing a document. A small selection of these is presented below.

The following web page describes how to use Track Changes in Microsoft Word 2002 (there is also a link to a Word 2000 version of the article):

http://support.microsoft.com/kb/305216

The following article describes how you can use some of the facilities available in Microsoft Office XP for reviewing and editing a document:

Brandon, D and Crabtree, A. (2003) *Collaboration without headaches*. <a href="http://www.aicpa.org/pubs/jofa/mar2003/brandon.htm">http://www.aicpa.org/pubs/jofa/mar2003/brandon.htm</a>

The following website has a number of tips on how to use Microsoft Word, including Track Changes (see the links in the section Sharing Microsoft Word documents on the right-hand side of this web page):

http://www.shaunakelly.com/word/index.html

Finally, do not forget that Microsoft Word has its own help system.

### 7 References

- Posner, I.R. and Baecker, R.M. (1992) 'How people write together'. In: *Proceedings of the Twenty Fifth Hawaii International Conference on System Sciences*. Vol. IV. pp. 127–138. IEEE Computer Society Press, Hawaii.
- Baecker, R.M., Nastos, D., Posner, I.R. and Mawby, K.L. (1993) 'The user-centred iterative design of collaborative writing software'. In: *Proceedings INTERCHI* '93. pp. 399–405. ACM, New York.