ACTIVITY SCHEDULE[1]

After the logframe matrix has been completed, further planning can take place to add operational detail to the plan. An activity schedule is a method of presenting the activities of a project that identifies their logical sequence and any dependencies that exist between activities. It is also used as a means of identifying who will be responsible for implementing an activity. The most commonly used presentation tool is the Gantt chart, but Critical Path Analysis is also sometimes used.

Once the logframe itself is complete, it is then possible to copy the activities from the left hand column into an activity-scheduling format. This is most easily done if the matrix has been prepared on a computer spreadsheet.

The steps involved in activity schedule preparation are:

1. List the main activities and assign to results
2. Break the main activities down into sub-activities and manageable tasks
3. Clarify the sequence and dependencies of the activities and tasks
4. Estimate the start-up, duration and completion of each activity and task
5. Identify process indicators or milestones by which you can measure project performance
6. Define the expertise required to undertake the activities and tasks
7. Allocate tasks among the project team

1. List Main Activities and assign to results

The main activities are a summary of what the project must do in order to achieve project objectives. While preparing the list, planners should always be aware of the following:

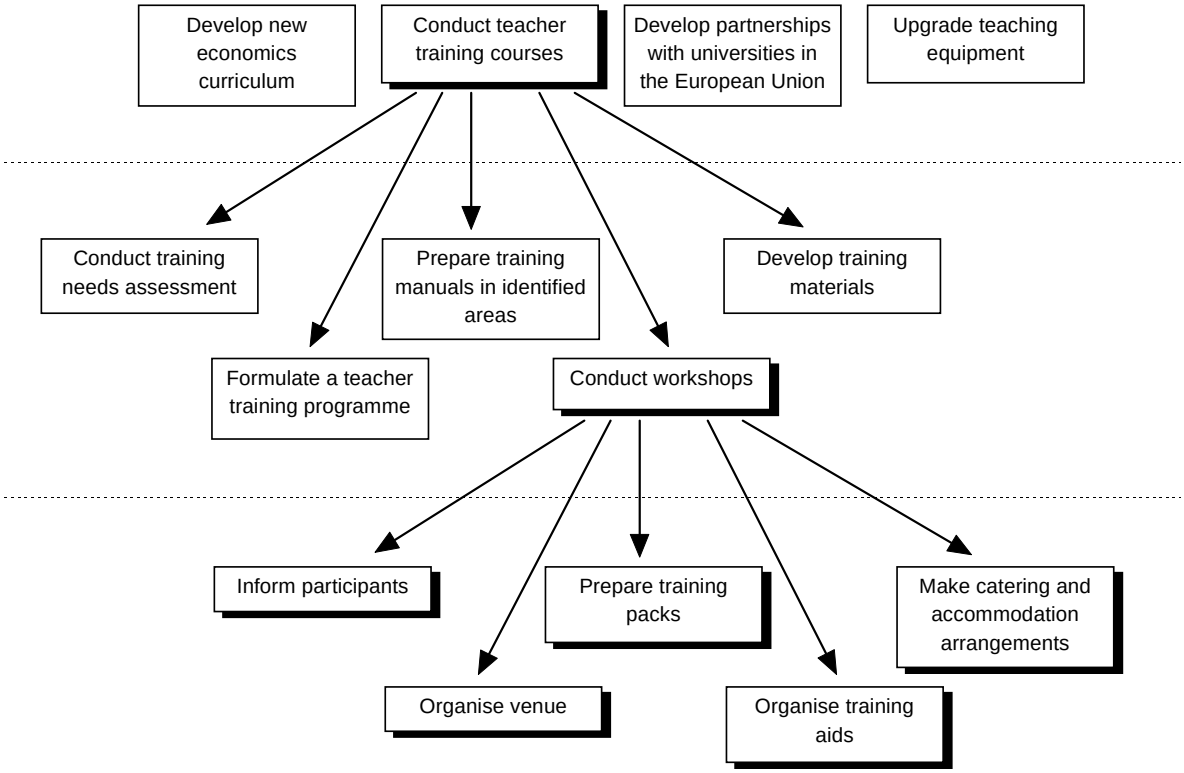
- available human, physical and financial resources
- how each activity will lead towards achievement of project outcomes, and the assumptions which underpin this
- the risks and uncertainties that could affect implementation of activities
- the time-frame of the project

2. Break the main activities down into sub-activities and manageable tasks

The purpose of breaking activities down into sub-activities or tasks is to make them sufficiently simple to be organised and managed easily. The technique is to break an activity down into its component sub-activities, and then to take each sub-activity and break it down into its component tasks. Each task can then be assigned to an individual, and becomes their short-term goal. An example is shown in the figure below:

[1] Handout developed using *Objective-oriented project design & management handbook* prepared by ITAD within the framework of the Tempus programme and *Project Cycle Management Guidelines,* European Commission.

Example of Developing a Work Breakdown Structure



The main skill is in getting the level of detail right. The most common mistake is to break the activities down into too much detail. The breakdown should stop as soon as the planner has sufficient detail to estimate the time and resources required, and the person responsible for actually doing the work has sufficient instructions on what has to be done.

3. Clarify the sequence and dependencies of the activities and tasks

Once the activities have been broken down into sufficient detail, they must be related to each other to determine their:

- **sequence** - in what order should related activities/tasks be undertaken?
- **dependencies** - is the activity/task dependent on the start-up or completion of any other activity/task?

This can best be described with an example. Building a house consists of a number of separate, but inter-related activities: digging and laying the foundations; building the walls; installing the doors and windows; plastering the walls; constructing the roof; installing the plumbing. The sequence dictates that digging the foundations comes before building the walls; while dependencies include the fact that you cannot start installing doors and windows until the walls have reached a certain height; or you cannot finish plastering until the plumbing has been fully installed. Dependencies may also occur between otherwise unrelated activities which will be undertaken by the same person.

4. Estimate the start-up, duration and completion of each activity and task

Specifying the timing means making a realistic estimate of the duration of each activity, and then building it into the activity schedule to establish likely start-up and completion dates. Often though it is not possible to estimate timing with complete confidence. To ensure that the estimates are at least realistic, you should do two things:

i) consult with people who have the necessary technical knowledge or experience; and

ii) use your own experience from previous projects.

Inaccuracy is a common mistake, usually resulting in an underestimate of the time required, and can arise for a number of reasons:

- omission of essential activities and tasks
- failure to allow sufficiently for interdependence of activities
- failure to allow for resource competition (ie. scheduling the same person or piece of equipment to do two or more things at once)
- a desire to impress with the promise of rapid results

5. Identify process indicators or milestones by which you can measure project performance

Indicators included in an activity schedule are called *process indicators* (also referred to as *milestones*). These indicators will provide the basis by which project implementation is monitored and managed. The simplest process indicators are the dates that you have estimated for completion of each activity - eg. training needs assessment completed by January 1998. More substantial process indicators can be used as an indication of overall project progress, and might be linked to the phasing of a project. For example, a project might be separated into a development phase (including institutional and needs analysis) and an implementation phase. By establishing process indicators for the completion of Phase 1, you provide a measure of overall progress, and a target for the whole project team to aim at.

6. Define the expertise required to undertake the activities and tasks

When you know what has to be done, you should have a clear picture of what type of expertise will be required to do this. Often you will know in advance what expertise is available. Nonetheless, this provides a good opportunity to check whether the action plan is feasible given the human resources available.

7. Allocate tasks among the project team

You should now allocate the tasks among team members. This involves more than just saying who does what. With task allocation comes responsibility for achievement of process indicators. In other words, it is a means of defining each team member's **accountability** - to the project manager and to other team members.

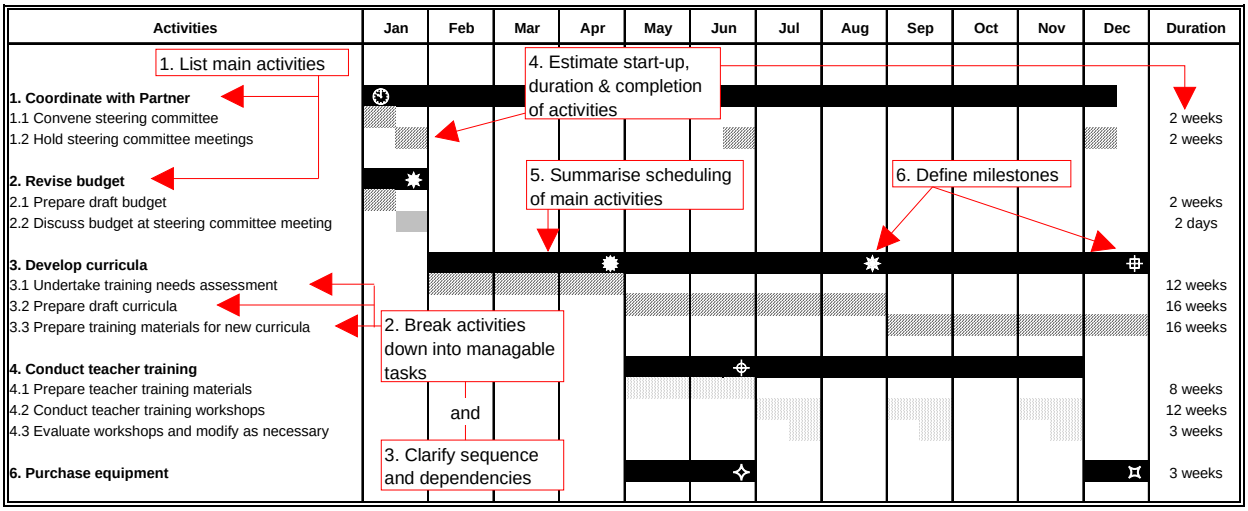
Task allocation must therefore take into account the capability, skills and experience of each member of the team. When delegating tasks to team members, be careful to ensure that they understand what is required of them. If not, you may have to increase the level of detail with which the relevant tasks are specified.

Presenting an Activity Schedule

All of the information in an activity schedule can be summarised in graphical format. This is called a **Gantt Chart**. An example is shown in the figure below. The format can be adapted to fit with the expected duration of the project. An overall project schedule may only specify activities on a quarterly or monthly basis, while an individual's quarterly workplan may use a weekly format.

Example of an Activity Schedule

WORKPLAN FOR TEMPUS PROJECT



The duration refers to the effective time that the activity will last - for example, equipment purchasing may take place over a period of 8 months, but will only require 3 weeks work.

Key:
Overall duration of activity
Activities carried out in Partner State
Activities carried out in EU

Monitoring milestones:
- Membership of steering committee and schedule of meetings agreed by January 15th
- Revised budget agreed by steering committee by end January
- Training needs assessment report submitted by end April
- New curricula agreed by end August
- Training materials prepared by end December
- Teacher training materials prepared by end June
- 12 computers purchased by end June
- Additional 8 computers purchased by end December

Although the above example was prepared in **Microsoft Excel** (a spreadsheet package), specialised computer software exists - for example, **Microsoft Project**, which has facilities for preparing activity schedules and budgets.