Supplementary Skills for Built Environment Researchers

Guide to planning, organising, and time management

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Introduction
This guide to planning, organising and time management for Built Environment researchers is prepared to provide some tips on how to enhance relevant skills and competence during your course of study. This is an outcome of a Centre for Education in Built Environment (CEBE) funded project, called SuSi-BER (Supplementary Skills for Built Environment Researchers) conducted within the Research Institute for the Built & Human Environment, the University of Salford.

There have been repeated calls for enhancing research and supplementary skills of the built environment researchers. Few would disagree that deepening specialised knowledge-base and wider skills of researchers in a variety of disciplines are prerequisite for developing successful leadership in higher education, the public sector and industry. We believe that, there is ample room for improvement in developing supplementary skills for quality research and researchers in the built environment. Further, as the modern society is changing in an unprecedented pace, you as an individual might realise the need to develop skills and competencies on a continual basis.

In this context, the project has been focusing on creating a foundation for creating, developing, and exploiting knowledge of supplementary skills for various activities of the built environment researchers. The project has identified and classified generic and transferable skills under the following six broad themes.

- paper / report writing skills;
- communication and presentation skills;
- personal development, professional competence, judgement and confidence;
- planning, organising, and time management;
- critical thinking and problem solving; and,
- team work and leadership.

There would be a guideline for each theme and an overall guideline for developing supplementary skills. The guides are written for everyone who is engaged in the Built Environment research, particularly postgraduate researchers reading for academic qualifications, e.g. MSc or PhD.

There is a wealth of information on each topic already available elsewhere, be it written or embedded in practice at various institutions. Due to space limitations, this guide does not provide comprehensive and exhaustive advice on each topic. Instead, this guide will provide some examples and practical tips that can help you to understand what developing each skill entails. It is hoped that this generic guide will stimulate you to think or rethink your chosen course of study as not just acquiring a qualification or passive learning experience of gaining some specialist knowledge on a research topic, but also as a process of developing you as a competent professional who can solve problems and contribute to the body of knowledge during the course of your study as well as for your future career.

This guide is thus intended to provide a foundation for which you can start with and as a common frame of reference to facilitate knowledge sharing among fellow students. For those of you who are interested in exploring further on particular topics, a reading list is provided at the end of each guide. Also remember that these supplementary skills need practice and you will learn through experience as well as reading some good materials. Like learning craft skills, we suggest that, as a starter, you emulate how other model people do and adapt their style and behaviour to suit your particular needs and style.

Developing planning, organising, and time management skills
As with other skills, planning, organising and time management skills are essential for researchers to successfully achieve the goal of their research
or project. According to the survey conducted under this project, planning, organising, and time management skills are perceived the most important skills just next to critical thinking and problem solving skills. However, these skills are not used as fluently as their importance may indicate. There is a clear gap to be filled, and some practical tips on how you can systematically plan, organise and manage time can make a big difference.

This guide concerns skills on how to plan, organise, and manage time during your course of study. There are various ways to acquire and improve your planning, organising, and time management skills.

First of all, this entails that you learn from doing and also from observing how other people are doing. Second, you need opportunities to practice these skills. This means that it is necessary for you not only to learn some basic skills but to apply those in day-to-day situations. Third, abundant materials are already available and you may get practical advice on it. Even if it may not be your sole objective to be an expert in planning, organising and time management skills, these are fundamental life skills which are easily transferable to many situations. Sharpening your skills and be prepared to exploit them during your course of study will put you in a better position to demonstrate the demonstrable skills to your future employees or customers.

When asked from the participants in the survey of this project, some of good practices are identified and put forward as follows:

- Draw a plan with targets and try and stick to it. See why you could not and adapt accordingly. Keep testing; and,

- Prioritise the tasks according to the deadlines and importance.

The above recommendations are valid in many occasions. However, there are other aspects of planning, organising, and time managing. In this guide, some practical tips are provided to help you use those in practice.

This guide is intended to give some (rather than exhaustive) practical advice and at the end some self-assessment questions through which you can identify gaps in your skills and devise an action plan to reach your desired level. For those who are interested in developing planning, organising and time management skills, further reading list is also provided.

**Planning, organising and time management for research**

There is a wide variance of approaches towards planning, organising, and time management. Of course, there is no one best way to deal with these issues. Further, there are some personal (and cultural) differences in terms of sense of control as shown in the below figure. The figure shows a continuum between two extremes: one is internal, which shows a person has belief that he/she can control everything in his/her life; the other is external, which represents a person’s attitude towards the course of action is fixed as everything is pre-determined and the person merely tries to respond to the varying circumstances.

![Internal vs External Control Continuum](image)

You might want to keep your own particular approach to control and manage your own research throughout the period. If it fits you and it works well to help you achieve your objectives, then by all means adopt your own way. This guide is not meant to give you ‘the’ right solution, but to present a systematic method which can be also considered for use.

**Key planning questions**

Sometimes you have only one big task to do in a day; however, most of the time we have a big task spanning several months or even years of time horizon, such as a PhD! Whether it is an overall planning for the PhD, or for a smaller scale project or task, you may want to ask the following key planning questions:
• Why should it be done?
• What has to be done?
• When should it be done?
• Who should do it?
• Where should it be done?
• What priority should it have?
• How much time will it require?

The purpose of asking the above questions are to ensure that you have a full understanding of the nature of problem, project, or questions that you’re dealing with. Once you have answered the above questions, the next step might be listing a few key tasks to achieve your objectives. In some cases and stages, this list of key tasks and their anticipated duration for each might suffice. However, if you want to build upon the list of key tasks and develop to a more detailed plan, you need to flesh your initial list of key tasks with more specific ideas that can be enacted. At this stage, ‘what-how’ analysis can help you identify sub-tasks and means to achieve your objectives. The below figure illustrates the way ‘what-how’ analysis can be conducted. On the left side, jot down your objectives and key tasks. On the opposite side, you identify sub-tasks and means to achieve the objectives.

**Estimating time: master and detailed programmes**

In order to develop a realistic and useful plan, you need to ensure that you fully understand what you want to or have to achieve. Sometimes this might be a straightforward task, but oftentimes you need to cope with uncertainties. As each research or project will be different from the others, you need to develop your plan taking into account of idiosyncrasies of your research or project.

Once you have completed producing a list of key tasks, allocate approximate timescale for each key task and adjust as necessary. Hardly these tasks will be sequential, but overlapped. Also some tasks will be on-going, for example, literature review, until you write up your thesis. Thus, allow sufficient time for each key task and anticipate surprises! This will form your overall or master PhD programme. Once you have developed your master programme, it will be prudent of you to review it periodically (say, quarterly or biannually) by yourself and/or with your supervisor in order to check your progress against your master programme.

The master programme will only broadly indicate how you’re progressing against it. Each item will also involve several sub-tasks, for example, literature search and review will entail identifying relevant bodies of knowledge, comparing different schools of thought, and synthesising the literature for producing a research framework, etc.

Once you have a list of relevant sub-tasks that you want to achieve, think about how long each sub-task will realistically take to complete. Allow sufficient time for other relevant activities for each task. For example, conducting fieldwork might include developing interview schedule, liaison with external collaborators, interviewing key participants, transcribing interview data, collecting relevant documents, sending transcripts to participants, and holding a workshop.

The time required to complete these sub-tasks will vary depending on some factors such as each individual postgraduate researcher’s own experience, clarity and type of research questions, availability of previous literature, the chosen methodology, mode of study (full-time, part-time, split-site, or work-based), and other individual circumstances. As conducting research always entails uncertainty, it will be appropriate to take into account of some contingent factors (e.g. holidays, interruptions, internal meetings, and computer breakdowns!) so that you can cope with unanticipated events and consequences.

Once you have allocated sub-tasks and their expected time to complete, this will form your detailed programme. Speak to your fellow researchers who have gone through the process already and get informed advice on your time estimate for each key and sub-task. You may want to check your progress periodically, say monthly or fortnightly, and adjust your programme according to the real progress. Reward yourself if
you have achieved planned activities successfully, or devise catch-up plans if you have missed some important deadlines.

**Scheduling**

As your study might involve interviewing participants, visiting sites, or having regular meetings with your supervisor, always check other concerned people’s schedule and incorporate their schedule into your programmes. It would be unwise to plan to have interviews in, say, mid December when most of the people are busy compiling annual reports or packing for seasonal holidays. Always treat other people’s time as valuable as (if not more valuable than) yours, and be considerate.

If your programmes are not complicated, you do not have to use tools such as Gantt charts or critical path diagrams. Use simpler timetables and action plans, if more appropriate and sufficient.

**Payoff vs priority: producing ‘prioritised to do lists’**

It is fairly easy to produce a ‘Things to Do’ list. However, not all things have equal levels of payoff and priority. Therefore, each item on the ‘to do’ list needs to be reviewed based on their potential payoff and priority. This exercise will help you produce ‘Prioritised to Do’ lists.

High payoff items are those that give us the most payoff towards our goals/objectives. This is different from those that need to be done in urgency, but have little or nothing to do with achieving our goals/objectives. High priority items are those that are urgent. This might coincide with high or low payoff. It is important not to undertake all tasks in the ‘to do’ list in a sequence.

Set up your own system of dealing with payoff and priority of your tasks. For example, you can rate highest payoff items as ‘5’, while lowest payoff items ‘1’. In terms of urgency (priority), you can allocate the most urgent tasks as ‘3’ and the least urgent tasks as ‘1’. Multiply the two scores of each task and prioritise the list of tasks accordingly. The tasks with the highest score need to be tackled first. If you are not able to complete all the tasks, focus on those with highest composite scores.

Alternatively, you may just want to use a simpler version of prioritised ‘to do’ lists. In this case, allocate scores according to the payoff potential (say, 1-5) and focus on those with high scores and leave others until you are able to deal with. Don’t worry too much if those with low payoff scores are piled up. If you need to tackle certain tasks urgently, raise payoff scores for those so that you can deal with them accordingly.

**Managing stakeholders**

During your course of study, it will directly and indirectly involve people. This is very much so if you’re carrying out case studies or action research in real life settings. In this case, planning and organising become more complicated and you have to accommodate various expectations of your project or research stakeholders. If you can accommodate them all, it is fine. However, if there is a need to devise a strategy in order that you can carry out your research or project, then stakeholder analysis might help you do that.

Some of your project or research stakeholders wield considerable power to influence the whole direction and progress of your research or project, and they could be your strong supporters. Equally, the opposite is also possible, in other words, they can block the progress of your research or project. Some stakeholders are important, but their concerns are marginally related to your research or project. You can classify your stakeholders in terms of their power/influence and their attitude/interest, and map out in a grid as shown below.

The above figure depicts four groups of stakeholders who have varying degrees of power/influence and interest. Group D exerts the
most powerful influence, however their interest is low. In this case, you have to either satisfy them or winning them on board so that they can support what you’re trying to do. Otherwise, make sure that they are taken out of play so that your project/research can progress safely. Group A has low power, but high interest. You need to keep them informed on the progress or turn them into your coalition. Similarly, win over Group C or build a coalition with them. Lastly, Group B requires minimum effort to manage their expectations; however, monitor any change in their power or interest status.

Summary

This guide has discussed developing your planning, organising, and time management skills. This is another important area which might determine the success of your research/project. Several tools are presented as an example of good practice in planning, organising and time management.

It will be helpful to get advices from your supervisor or your colleagues who have gone through the process. There are many books offering practical tips on how you can improve planning, organising and time management skills. A few of them are listed in the further reading list.

To help you identify which areas you may need to improve, a self-evaluation matrix is provided at the end of this guide. You may want to reflect upon your current level of competency and identify the gaps between the current status and the desired status for this important skill. Although it is designed to help you increase your awareness through self-reflection, you may also want to discuss your concerns with your supervisor and colleagues. Problems are easy to rectify when they are identified at an early stage and shared with others, who may gladly be your helping hands.

Further reading list

General (and specialist) books and guidelines on planning, organising, and time management skills abound. You may speak to other researchers and supervisors to recommend some good books appropriate to your level. The following further reading list provides a few books which you can refer to:


Acknowledgement

Authors would like to acknowledge the financial assistance received from Centre for Education in the Built environment (CEBE) through its Educational Development Grants Scheme to develop this guide.
Appendix:
Self-assessment for Planning, Organising and Time Management Skills

Complete this Skills Audit now and compare progress each year during your PhD. Through this exercise, you would have opportunities to assess your awareness of both strengths and weaknesses. This will form the basis of your supplementary skills profile. Having completed this assessment of your supplementary skills, you may want to set targets for yourself and develop strategy to improve any aspect of the particular supplementary skills. You may want to identify sources of good practice or model which you would like to emulate or learn through experience. Some of the aspects might be discussed during workshop or training sessions in your school, research institute or university, so check with the pertinent websites or student handbook. You may also discuss with your supervisor(s), who can provide you with some help on whether there are opportunities for you to practice your skills.

Rate your ability according to the scale provided as below. As you go through each category, it is useful to think about how you can develop your skills on a short-term as well as long-term basis.

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Very well. I feel confident in my ability to use this skill.</td>
</tr>
<tr>
<td>3</td>
<td>Satisfactory. I am able to use this skill well, but my ability could be further improved.</td>
</tr>
<tr>
<td>2</td>
<td>Needs attention. My ability to use this skill needs to improve.</td>
</tr>
<tr>
<td>1</td>
<td>Needs considerable attention. I struggle with this skill and need to put in considerable efforts to develop this skill.</td>
</tr>
<tr>
<td>Rate your ability against each statement below:</td>
<td>Rating</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>I can identify and articulate the aim and objectives of my research or project</td>
<td></td>
</tr>
<tr>
<td>I can set intermediate milestones in pursuit of the goals and objectives of my research or project, and produce short-term as well as long-term plans</td>
<td></td>
</tr>
<tr>
<td>I can generate and evaluate alternative strategies to achieve the objectives of my research or project</td>
<td></td>
</tr>
<tr>
<td>I can identify, analyse and manage the stakeholders of my research/project</td>
<td></td>
</tr>
<tr>
<td>I am able to ensure timely completion of the project</td>
<td></td>
</tr>
<tr>
<td>I am able to identify, analyse and manage risks involved in my study or project</td>
<td></td>
</tr>
<tr>
<td>I am able to operate a daily planning system</td>
<td></td>
</tr>
<tr>
<td>I am able to accommodate some changes and exploit emergent opportunities during the course of study or project</td>
<td></td>
</tr>
<tr>
<td>I take uncertainties into account and have a sound contingency plans</td>
<td></td>
</tr>
<tr>
<td>I can prioritise things to do in terms of urgency and importance</td>
<td></td>
</tr>
<tr>
<td>I am able to balance my research and social time</td>
<td></td>
</tr>
<tr>
<td>I can reflect on the past and put the lessons learnt in action for the future</td>
<td></td>
</tr>
<tr>
<td>I am able to locate and collect all relevant information in the library</td>
<td></td>
</tr>
<tr>
<td>I can identify and access appropriate bibliographical resources, archives and other relevant sources of information</td>
<td></td>
</tr>
<tr>
<td>I can use a systematic method to keep up to date with the state-of-the-art literature</td>
<td></td>
</tr>
<tr>
<td>I can use information technology effectively for producing, storing, managing, retrieving, analysing, and presenting data</td>
<td></td>
</tr>
</tbody>
</table>

Consider your responses above and rate your overall ability for planning, organising, and time management.

<table>
<thead>
<tr>
<th>Consider your responses above and rate your overall ability for planning, organising, and time management</th>
<th>Rating</th>
<th>Target</th>
<th>Improvement Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning, organising, and time management</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Any problems?

Things I need to improve

Action plan for the next review  (set your own review frequency such as quarterly or yearly)