Transferable Skills Workshop, London 2013

The "Transferable Skills" training was part of our (ESRs!) activities in AboutFlowLondon's workshop. It turned out to be a good opportunity for us to form our ideas, opinions, knowledge and common logic we already had into a more organized and conscious package. To achieve this we used (apart from the Steve's skillful talking of course) edifying discussions, examples, activities and games to keep our interestirreducible. If an outline of the training's flow is necessary, we can summarize it in three sentences; *Get the best out of yourself*, *learn to work with other people* and *do not forget your values*.

The base of any potential (research) goal is a person's ability to learn, apply, and come up with new ideas and produce. Concerning the knowledge absorption, i.e. learning - a fundamental skill for a researcher, after a short discussion we concluded that every individual has its own way to achieve it. Moreover, we realized that people feel productive in different times of the day and in different environments. The key point for us, as researchers, is to identify how and when we are more effective and use this information wisely. It is also important to locate the imaginary border between spontaneous creativity and structured productivity and take advantage of both.
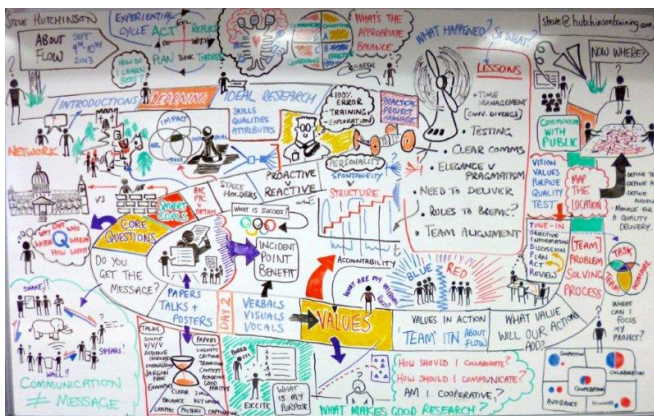

Figure 1- The final version of the white board, where Steve used to keep his notes

In order to think a bit about the ideal researcher an interesting activity was suggested by Steve. "How would you draw the ideal researcher?" The drawings we came up with, even if they looked a bit funny (!), converged to a similar opinion. The ideal researcher should have numerous skills (e.g., innovative, open-minded, doubtful, sociable, productive etc.), being able to use them according to the occasion. The bottom line was obvious: *Which skills do I lack to be as close as possible to the ideal researcher*? *How can I develop them*? Moving on, we tried to organize research development in a framework using a cumulative diagram. It could be seen as if building up a puzzle; the more pieces you connect, the clearer becomes the final picture.

Trying to explore the teamwork field, a small game was set up. We were split into three teams and had to build up a car using only specific objects, making it capable to move as far as possible using a fan. It is impressive that this competition revealed the rules that should be followed by a group even on significantly bigger projects. The structural elements that lead to success or failure are the same regardless the size of the final goal. Time-management, leadership, decisiveness, communication are some of essential conditions that should be respected.

After presenting and explaining the key points of "skills of ideal researcher", "spontaneous creativity vs structured productivity", among others, Steve walk us through the concept of *project effectiveness*. He used as an example a chess game. There both stakeholders (i.e., the players) have a clear understanding of what is the best way of opening their play but as the game continues and evolves (as an ongoing reaction of the player to their opponent's moves), a certain breakthrough point will emerge where one of the players will make an unpredictable move which will signify the end of the game. Thus, in any project exist certain phases, namely the opening, mid-game and end-game, which give the opportunity to the researcher to draw a strategy based on the decision points. At the beginning, the decision points are well defined and relatively easily identified by the researcher (since the final goal is given), moving on to the mid-game phase a series of decision points unravels. The researcher can select his

path through them, by being proactive (e.g., regular review) or reactive (e.g., issues management). As the project's time runs out the end-game phase begins, where specific deliverables should be produced, and the series of decision points ends.

But upon what should the researcher base his aforementioned decisions? It should be upon needs that must be covered. These needs stem from the stakeholders, project, organization and individual. Thus, the stakeholders' needs are mainly related to the impact that the research will have, while the project's need are tied to the completion of the project itself. The organization has needs associated with the support that must be provided by the individual towards the group, whereas the individual's needs are relevant with the motivation that he/she must find throughout the project.

The motivation however is something that everyone can find in different places. For this reason, it is always helpful for the researcher to know and understand both the big picture and the practical details of a project. Thus, Steve used the example of St. Paul's cathedral construction to make his point clear. During the construction several workers were asked to answer what they were doing, and not everyone if not only few understood that their work (e.g., building a small part of the wall) was a part of a broader project. It is important to put your work under a perspective! Work harder does not always pay off but work *S.M.A.R.T.E.R.* (Specific, Measurable, Achievable/Agreed/Accountable, Realistic/Relevant, Time bound, Exciting/Energizing, Reviewed) can get safely a project member (i.e., a researcher) to the end.

Figure 2-Discussion between all the participants

Yet the *S.M.A.R.T.E.R.* paradigm is difficult to keep in track in an everyday-basis. Therefore, Steve provided us with a checkpoint list, which will facilitate us to be aware as soon as possible (by going periodically back to the list and check) when we deviate from the *S.M.A.R.T.E.R.* path. This list contains core questions (Who...?, When...?, What...?, etc.) to which we, as members of the project, should have the answer to.

It is, or it should be, of high importance for a researcher be able to successfully communicate his progress and results to various stakeholders, ranging from unfamiliar audiences to the most experience expert. How can research communications have the right impact? Steve selected to focus on the three different means of communication, namely posters, talks and papers. He gave us practical hints, tips and more general advices. Bringing some examples, the tips for the posters included the most appropriate fonts; while for the presentations, he suggested that engaging the audience by asking questions (both rhetorical and ones that an answer is expected) captures the attention. On the more general advices side, he suggested that we should be aware of our audience composition when we give an oral presentation. Writing a scientific paper is not always a straightforward task, thus, using proper language, having continuity and putting our work under an appropriate scope will ease the assignment.

As part of Steve's workshop, the sensitive subject of values was discussed. Within the context of research projects, the term "values" actually has several meanings, the first and most obvious being that of "internal rules": the researcher should at all times be aware of what their personal boundaries are, as these may not always coincide with external rules and legislations. A powerful example is the case where a researcher collects a set of data partially confirming their expectations, and partially disproving them; the researcher can choose to publish their findings as a whole, or omit the inconvenient part. The second choice, although technically not "wrong" in terms of

regulation (the final paper per se would not contain any "lies"), can be seen depending on one's own values as a form of academic fraud, or as an unprofessional way of publishing as successful something that is actually somewhat irrelevant in order to put oneself in a good light within the scientific community. Other examples include cases where a research project may result in the practical development of something that goes against the researcher's ethics.Despite the apparent simplicity of the matter, making a choice according to one's internal rules can be a great challenge in cases where, for example, such choice may compromise the person's relationship with their work partners (e.g. with their employer or academic supervisor) and therefore have an impact on the researcher's life itself.

In order to show how values also play a role in our everyday professional life, Steve set-up an activity known as the "Blue or Red" game, where four separate groups are to negotiate a strategy with the given target of winning "as many points as possible for your team". The interpretation of this very instruction is the key to the takeaway message: the behavior of each group, in terms of goal and modus operandi, will depend on what they mean by "team": either their own group or the ensemble of the four groups. Out of metaphor: a researcher should reflect on what makes good research, whether it is productive to adopt a strategy of competitiveness or avoidance, or rather focus on a cooperative one. It was agreed that, given the nature of our work and that of the scientific community in general, cooperation is the ideal code of conduct in order to make good research and ensure that our work will in fact bring about some added value to the field. Within the scope of AboutFlow, this translates first and foremost into maximizing communication between ESRs as well as between all partners involved.

Figure 3-Final presentation of one of the teams

But what is the most efficient way of working within a team and stay motivated? The Task-Team-Individual leadership model was proposed as a good solution. It shows how the actions of a) achieving a task, b) building and maintaining a team and c) developing an individual are overlapping and interdependent. The TOIDPAR approach was also mentioned as an efficient flowchart to follow for practical task achievement within a team: tune in all individuals; agree on the definition of the objective; gather all necessary information; discuss strategies; plan the course of action; act; review. As a practical demonstration, Steve's workshop included an activity where each team was assigned a certain task to complete with deliberately vague instructions; in such case, tuning in and objective definition, which at first may sound obvious or unnecessarily time-consuming, actually proved to be the most important phases of the project.

The final act of the workshop involved the preparation and delivery of presentations related to fundraising for fictitious events; this directly relates to the "outreach" aspect of AboutFlow, on which all ESRs are expected to work at some point in the course of their PhD. The activity was useful not only to reinforce and practice on those concepts already discussed in the "communication" section (i.e. the do's and don'ts of making and performing presentations), but also to get an idea of what the difficulties are when having to talk about a certain topic in front of an audience which is not familiar with the subject, or rather focused on one specific side of the matter. As one might expect, in this case it is paramount to keep focused on the bigger picture and have the spotlight on what the advantages of a certain project will be, both for the listener and for the wider community.