Tools for supervision of dissertations

A	One-to-one discussion
B	Yearly bilateral appraisal interview – assessing the current situation
C	Presentation of work progress in student's own doctoral thesis
D	Workshop discussion
E	Laboratory, office or workshop meeting
F	Open office hours
G	Cooperation with co-supervisor
H	Seminar
I	Journal club/literature seminar
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K	Doctoral students' meeting
L	Researchers' meeting
M	Selection process
N	Structured interim interview
O	Final discussion with focus on looking ahead
X	Collaboration on scientific paper

The tools do not conform to any specific hierarchy. This list is not exhaustive.

A One-to-one discussion		
Procedure	**Objectives**	**Points to consider**
Regular, scheduled one-to-one discussions between professor and doctoral student. It makes sense to follow a structured procedure planned in advance. Depending on the stage reached in the doctoral thesis, different key topics need to be included – initially the focus will be on structure, organisation of work, checking progress, etc., while later on it will turn increasingly towards aptitude and career matters	To make sure progress is being made To identify problems at an early stage To improve cooperation To give/receive feedback on strengths and weaknesses, establish where development is needed, make career plans	**When – how often?** Once a week to once a month Approx. one hour More frequent discussions required in the early stages of the doctoral thesis and possibly again on career matters towards the end of the process
		Participants Doctoral student and professor Plus any additional supervisors
		Feedback/input on what? Content: Taking stock of the previous period of work – what's working/what isn't? Work progress and plans, approaches to resolving problems Cooperation Strengths and weaknesses Development needs

B Yearly bilateral appraisal interview – assessing the current situation		
Procedure	Objectives	Points to consider
Discussion focusing on taking stock of the current situation and looking ahead, with structured content planned in advance, a written summary and binding agreements	To evaluate all feedback obtained over the course of the year To assess the doctoral student's current situation with regard to progress and quality of work and aptitude for working in science To establish development targets To make career plans To organise cooperation	**When – how often?** Once a year
		Participants Doctoral student and professor (poss. also an additional interview with senior assistant)
		Feedback/input on what? Achievement of targets and quality of work over the past year Cooperation Targets and areas to improve for the next year compared to the previous year Any development and career steps required
The yearly bilateral appraisal interview is an essential tool because it pools together the various pieces of feedback obtained over the course of the year and evaluates them. It therefore provides a good opportunity for working on key factors for success and failure in terms of both the ongoing (doctoral) thesis and the student's (non-)academic career.		

C Presentation of work progress in the student's own dissertation		
Procedure	**Objectives**	**Points to consider**
Doctoral students present data/findings and progress from their own dissertation and where they plan to take the project from there	To make sure that progress is being made, the objectives of the dissertation are realistic and the dissertation is well-planned; to make corrections to/expand on content	**When – how often?** Once or twice a year **Participants** Group **Feedback/input on what?** Quality of the doctoral thesis Progress Structure and clarity Presentation Research plan

D Workshop discussion		
Procedure	**Objectives**	**Points to consider**
Each scientist in the institute reports on their own project, followed by a discussion	To critically analyse own work and establish approaches for resolving difficult issues and dealing with problems To make sure progress is being made To build networks within the institute	**When – how often?** Twice a year, with each **Participants** Scientific employees from the working group **Feedback/input on what?** Content/quality Form Structure and clarity Presentation Problems

E Laboratory, office or workshop meeting		
Procedure	**Objectives**	**Points to consider**
All members of a laboratory, office or workshop community and their supervisor	To ensure the flow of information, improve cooperation and coordinate work and resources	**When – how often?** Between once a week and once a month
		Participants Group
		Feedback/input on what? Current issues and information regarding projects (weekly or monthly plans) Cooperation Problems

F Professor's open office hours		
Procedure	**Objectives**	**Points to consider**
One-to-one discussion in light of recent developments	To find quick and lasting solutions to problems	**Feedback/input on what?** Current issues of a professional, personal or social nature

G Cooperation with co-supervisor		
Procedure	Objectives	Points to consider
In the course of their doctoral thesis, doctoral students are allocated a scientific partner	To engage in intensive scientific dialogue To identify and deal with problems	**When – how often?** Usually once a week to once a month
		Participants Doctoral student and scientific partner (co-supervisor)
		Feedback/input on what? Scientific quality, planning and potential

H Seminar		
Procedure	**Objectives**	**Points to consider**
External (international) speakers are invited to give talks. Input and discussion.	Primarily a tool for developing scientific expertise, but also for building networks and expanding horizons in terms of research culture, conditions and requirements	**When – how often?** Between once a week and once a quarter
		Participants All doctoral students under the
		Feedback/input on what? Scientific input into the talk After the talk, career opportunities, conditions at other universities, etc. are also discussed

I Journal club/literature seminar		
Procedure	**Objectives**	**Points to consider**
Doctoral students present new publications that they have come across in the course of their research to the other group members; the presentations are discussed and commented on	To broaden scientific expertise, but also to learn how to prepare and structure content, how to present topics in an interesting way, how to speak confidently, how to express oneself clearly, how to receive and make use of feedback (accepting criticism) and what makes a good publication based on examples	**When – how often?** Between once a week and once a quarter **Participants** Group **Feedback on what?** Structure, clarity of the presentation, presentation technique, language, demeanour, scientific and differentiated arguments

J Participation in a scientific conference		
Procedure	Objectives	Points to consider
Doctoral student prepares a conference presentation (paper, poster) and takes an active part in the conference along with the professor	To improve scientific presentation skills To expand networks To practise engaging in scientific discussion with the community	**When – how often?** Once a year **Feedback/input on what?** Before the presentation: content; afterwards: the presentation itself, the student's demeanour, how the student deals with questions, etc.

K Doctoral students' meeting		
Procedure	**Objectives**	**Points to consider**
All doctoral students within a particular discipline meet to present and discuss their findings	To develop a vibrant research community and build networks To make sure progress is being made	**When – how often?** Once a year
		Participants All doctoral students within the same discipline in Switzerland and supervisors
		Feedback/input on what? Quality of the doctoral thesis Progress Structure and clarity Presentation Research plan

L Researchers' meeting		
Procedure	**Objectives**	**Points to consider**
Regular meetings with a partner group to share and discuss new data and work progress	Primarily a tool for promoting the latest scientific findings and scientific expertise, but also for cultivating networks	**When – how often?** Two to four times a year
		Participants Group and partner group(s)
		Feedback/input on what? Content/new data, procedures Structure and clarity Presentation

M Selection process		
Procedure	**Objectives**	**Points to consider**
Selection interview, usually semi-structured	To select doctoral students who fit in well with the research group and are judged to offer good prospects of success. The doctoral student is required to set out objectives for the future in an appropriately clearly formulated way.	**When – how often?** Before starting the thesis **Participants** Professor, doctoral student, sometimes also a senior assistant **Feedback on what?** Aptitude for scientific career Ideas for research plan

N Structured interim interview		
Procedure	**Objectives**	**Points to consider**
Doctoral students present the current status of their work Discussion with the doctoral committee The committee discusses/consults on the assessment of the work Feedback given to the doctoral student	To establish the student's practical aptitude for scientific work To identify problems at an early stage To make sure the student is following a sensible procedure and making good progress To decide on whether to continue with the thesis	**When – how often?** Six months, 11 months after starting the doctoral thesis – approx. one hour Also possible at any other time, e.g. halfway through the thesis process **Participants** Doctoral student and the doctoral committee that has been assigned to the student (direct supervisor, one or two other professors from the department) **Feedback on what?** Quality of work Progress, apparent difficulties, working process

O Final discussion with focus on looking ahead		
Procedure	**Objectives**	**Points to consider**
In-depth one-to-one discussion with detailed and direct feedback regarding the student's aptitude for a scientific career	To provide final feedback on the student's academic performance (thesis) To discuss career aspirations, options, opportunities and plans and make it easier for the doctoral student to determine and evaluate them To give/receive constructive and useful feedback on further career planning	**When – how often?** When the thesis is completed **Participants** Professor Doctoral student **Feedback on what?** Scientific aptitude Assessment of non-scientific skills Character

X Collaboration on scientific paper		
Procedure	**Objectives**	**Points to consider**
Doctoral students write scientific publications, with the necessary standard of quality achieved through an iterative process of discussion between the supervisor and the doctoral student Sometimes scientific papers are also reviewed by the doctoral student and the review subsequently discussed	To identify the criteria for a scientific publication To increasingly move towards the student writing publications independently	**When – how often?** As often as possible **Participants** Doctoral student and supervisor **Feedback/input on what?** Criteria for a scientific publication Quality of work Structure and clarity