# 4WM00 Coaching & Tutoring

Manual

Table of contents

**Roles and tasks of tutor**

1. Course description 4WM00 Coaching & Tutoring 2
2. The roles and tasks of a tutor 4
3. Preparing the first meeting (checklist) 6
4. Kick-off meeting (only for 4GA00) 7
5. Coaching and supervising during DBL/CBL project 8
6. Description of team roles + model Agenda 10
7. GDPR guidelines 12

**More tips**

1. Tips for the project planning phase 13
2. Tips for asking open ended questions 15
3. Tips to supervise students’ group work 18
4. Instrument to evaluate social group processes in education 20

**Rubrics & forms**

1. The use of rubrics to assess and give feedback 22
2. Peer review procedure 23
3. Student evaluation form (individual assessment) 24
4. Rubric for Self-Study Assignment (SSA) 25
5. Rubric for Peer observation 26
6. Presenting (professional skill) 29
7. Rubric for Professional Skill Presenting 30

# Course description 4WM00 Coaching & Tutoring

**Learning objectives**

At the end of the course, a tutor has demonstrated the following at a satisfactory level:

* Name the roles and tasks of a tutor and execute those
* Coach and motivate students where necessary
* Assess students on their behavior and contribution to the DBL case
* Explain and assess the professional skills related to the case (if applicable)
* Recognize and efficiently address critical situations that might occur in teamwork
* Enable discussion about the group dynamics and positively influence group dynamics
* Give and receive feedback to/from students and other tutors
* Reflect on own role as a tutor

**Contents**

Acquiring professional skills in working in a team (coaching) and planning (project planning) is important for future engineers. Also reflecting on the role as a tutor yourself is important. A good way to learn these skills is by acting as a tutor in a DBL/CBL project – team projects in the bachelor of Mechanical Engineering. This course consists of a training on tutoring and of tutoring in practice. During tutoring, the aforementioned skills / learning objectives will be applied and improved. The student reflects on the tutoring with the trainer and the fellow tutors. A personal report is written at the end of the course.

The course consists of the following 3 mandatory elements:

1. **Training Coaching & Tutoring (3h)**
   * Roles and tasks of the tutor
   * Motivation of groups and guiding a group process
   * Dealing with difficult/critical situations
   * Giving and receiving feedback
   * Guidance and assessment of professional skills
   * Preparing the first meeting: practical issues, goals and expectations

Attending the training is mandatory! If you’re not available for one of the dates of training in the quartile of your preference, you cannot subscribe for that quartile.

1. **Tutoring in practice**

* Tutoring one or two DBL/CBL groups during one quartile
* DBL case introduction (prior to the start of the DBL case)
* Instructions with regard to professional skills
* Weekly tutor meeting (during DBL case) – this is not 4WM00 related but DBL project related
* Peer coaching meetings (2x)
  + Guided by 4WM00 teacher
  + Two moments of 30 minutes, to be planned by the 4WM00 teacher.

1. **Assessment of tutors**

* Peer observation of, and by, two fellow tutors (2x)
* Midterm- and final survey about tutor filled in by both DBL/CBL groups
  + Instructions followed by 4WM00 teacher
  + Final survey needs to be >3 (out of 5) on every criterium in order to pass the course
* Writing a personal reflection report

Below, in an overview, all the assessment/review/observation moments. Please be aware that the weekly feedback round during the DBL/CBL meetings, is not included in this overview. For further explanation, read the information in this manual.

|  |  |  |
| --- | --- | --- |
|  | Student | Tutor |
| **Student to..** | **Midterm peer review**  Students assess each other, as part of DBL course.  Result is insufficient/sufficient/good + grade for student.  **Final peer review**  Students assess each other, as part of DBL course.  Result is insufficient/sufficient/good + grade for student. | **Midterm tutor review**  Students give tutor feedback (via survey), as part of 4WM00.  **Final tutor review**  Students give tutor feedback (via survey), as part of 4WM00. |
| **Tutor to…** | **Midterm individual assessment**  Tutor assesses each student, as part of DBL course.  Result is grade for student.  **Final individual assessment**  Tutor assesses each student, as part of DBL course. Result is grade for student. | **Peer observation 1**  Tutor observers other tutor, as part of 4WM00.  **Peer observation 2**  Tutor observers other tutor, as part of 4WM00. |

# The roles and tasks of a tutor

As a tutor, you have a number of different roles and tasks in the tutoring and coaching of students in design-based learning groups:

* Facilitating the learning process for example by asking open-ended questions to support students to look at the problem from different perspectives or to reflect upon the technical design).
* Coaching students in the progress of the technical design (e.g. the planning including deadlines, the formulation of the learning outcomes, the supervision of the weekly self-study assignments; the working methods; data collection and test methods, the results, etc.).
* Motivating the group by showing interest in group work; complementing the group by asking questions, for example ask about working arrangements and cooperation in the group. Does the group work with a clear agenda, and does everyone keep their commitments? Is everyone’s contribution listened to?
* Guiding the group by regularly asking the group about the why and the how, encouraging creativity and action, and stimulating them towards a deeper understanding; clarifying difficult points if the group cannot solve it themselves. Do not lecture yourself, do not give the answer yourself!
* Stimulating group work by thinking together about solutions on understanding activities to be undertaken by supporting in the division of tasks, to clarify the strategy for the work and agreements; together solving critical situations, etc.
* Providing feedback both to the group and individually on progress of technical self-study assignments and also on team roles and teamwork. Rubrics will guide you to monitor the progress.
* Assessing students both formative and summative assessment on self-study assignments and team roles. (See chapter 17 and 18 for the forms you can use for regular assessment during DBL/CBL meetings)
* Evaluating the progress, the process and the students. To evaluate the technical progress of the self-study assignments, think of questions such as: how did the meeting go? Did the group make progress? In what? How? What went well? What can be better?

Pay attention to the planning and deadlines, the formulation learning outcomes of the weekly self-study assignments. Regarding the team roles: How did the chairman do? And the note-taker or board-writer? And the rest of the group members? What was good about all of these roles? Why? How do you see improvement in comparison with previous meetings? What to do next? How to improve?

**Think also of your role as a tutor:**

Did my supervision role/tasks go as I expected? Was I too directive? Was I supportive? Did I give too many hints? Did I complement/motivate the group when needed? How did I give feedback to the students? Did I pay attention to all students, the good ones included? Did I give also individual feedback? Was the feedback on the weekly self-study assignments? What can I do differently next time? The rubrics will support you to provide feedback and to assess the students, and to evaluate the meetings.

*Taken and adapted from: Delhoofen, P., De student centraal, Handboek zelfgestuurd onderwijs, W-N Groningen, HOR 1996; Moust, J., Probleemgestuurd leren, een wegwijzer voor studenten, W-N Groningen, HOR 1989; Powell P., Weenk, W., Project-led Engineering Education. LEMA, 2003; Gómez Puente, S.M., Design-based learning: exploring an educational approach for engineering education. Ph.D. dissertation, 2014.*

# Preparing the first meeting (checklist)

During the first meeting, it will be important to set rules and to make agreements:

* The number of meetings with the tutor, your availability
* The time and location of meetings (*take the “meeting online” instructions into account*).
* The subject to be discussed
* The contribution of the group: make sure that roles rotate amongst group members
* The role and contribution of the tutor
* Giving feedback (with the use of rubrics)
* Rubrics for own development: team role; generic and specific rubrics for weekly self-study assignments
* Assessment (mid-term and end assessment with rubrics)

Some other agreements with the group are about the working methods, for example:

* Discuss points from the minutes of the previous meeting that require attention
* The rota of chairman and minutes secretary
* Notes of absence, addresses, and telephone numbers
* Observations on the performance of the tasks and the contribution of the group members
* The preparations everybody is expected to carry out for the group meetings; the agenda
* Interim evaluation
* About the plans, the logbook, and the use of Canvas
* Facilities required (such as computer, copying pass)

With regards to the problem-solving methods to be used in each meeting, you may also agree with the group on the following:

* Clarify unclear terms and concepts
* Define the problem
* Analyse the problem
* Distinguish sub-problems

# Kick-off meeting (only for 4GA00)

To properly prepare first-year students for their very first DBL case and to ensure that their expectations of DBL are correct, there is a kick-off meeting planned prior to the first regular DBL meeting. This meeting is led by the tutor and will take place in the first week of lectures, on [date]. The first 'regular' DBL meeting is on [date].

About the PowerPoint presentation ‘What is DBL’:

* The tutor will show the PowerPoint presentation 'What is DBL (including notes)’, which includes a YouTube video about DBL. This video briefly explains what students can expect from DBL.
* The presentation also contains a number of slides including notes, for the tutor as input for the conversation. The tutor can check whether the expectations of DBL are correct.
* The presentation including notes is to be found on the TEAMS page 4GA00 Tutors 2022-2023. The version for students - without notes - can be found on Canvas/4GA00/Modules/DBL General Information.

Below is the agenda of the meeting, with the number of minutes reserved per subject.

**Agenda Kick-off meeting**

**1. Opening (5 min.)**

* Welcome word from the tutor
* Determine presence/absence. Inform DBL coordinator about absences and other particularities: me.dbl@tue.nl.

**2. Getting acquainted with the tutor and your DBL group members**

* Introduction of the tutor and students (10 min.)

**3. Explanation DBL process and study method**

* PowerPoint-presentation ‘What is DBL’ + conversation (20 min.) Use the questions in the notes
* Explanation schedule and meetings times, project information document, CANVAS
* Rules and regulations (attendance)

**4. Check with your students how everybody is doing.**

* Refer if necessary to academic advisor, to DBL coordinator, to ESA helpdesk, to CSA, to student mentor etc.

**5. Any other business and closing (5 min.)**

# Coaching and supervising during DBL/CBL project

When tutoring students, pay attention to the following:

* How the students perform in regards to the learning outcomes of the project, the planning and the deadlines;
* The technical progress regarding the development of the self-study assignments (e.g. the formulation of the self-study assignment; the planning; the results of the self-study assignments);
* The team roles and teamwork performance.

To tutor and coach students, you will need to take on activities to prepare the meetings beforehand but also to supervise and provide feedback to the students during the meetings.

**Before the meetings**

* Review the students’ weekly self-study assignments (SSA)
* Prepare the feedback on the weekly self-study assignments with the use of the rubrics. Please check the generic and specific rubrics, and the criteria for team roles, etc.
* Think carefully about the issues you need to pay attention to during the group meeting as a result of the remarks and observations you made from previous meetings.

**During the meetings**

* Registration of attendance
* Ask open-ended questions to the students to support them to:
  + reflect on + explicate rationale for technical design, argument formulation, decision making;
  + come to own solutions by adding briefly some piece of information (just-in-time teaching). Do not give away the right solution!
  + articulate engineering terminology during regular meetings and presentations;
  + explore alternatives for problem solving and problem representation by utilizing different perspectives;
  + learn from other students’ plans, knowledge application in problem solving experiments, by asking the students to also give feedback to each other’s self-study assignments;
* Review and provide (formative feedback) on:
  + Technical progress of plans, proposals and of the self-study assignments regarding the learning outcomes;
* Planning, results and formulation of self-study assignments regarding for instance data collection, testing methods, etc.
* On progress on presentation skills, team-work, etc.

**Evaluation at the end of the meeting**

At the end of each meeting, it is important you give feedback both to the group but also to all individual students. When giving feedback, always make use of your observations and describe the facts regarding the group progress with regards to:

* Technical design progress (as mentioned in point 2);
* The weekly self-study assignments (as mentioned in point 2);
* Team roles.

When evaluating the group meeting and the students individually, make sure you give an overview of the following:

* What goes well and why?
* What can be better and why?
* How to improve? What to do next and how?

The rubrics will help you to evaluate the group meetings and to give feedback to guide the students in their self-development. You find the rubrics further on in this manual.

# Description of team roles + model Agenda

**Role as chairman**

The chairman monitors the progress of the meeting and facilitates the group process. Specific tasks:

* Preparing the meeting, a concrete agenda
* Chairing the meeting, monitor the time schedule of the meeting
* Working according to the agenda, summarizing and closing each agenda item properly
* Ensure a balanced participation of all members in accordance with the diverse roles
* Point out things that hinder a good progress of the meeting
* Ending the meeting with an evaluation of the project´s progress and also of the group process

**Role as minute taker**

The minute taker provides minutes of the meeting afterwards, at Canvas and on paper. Specific tasks:

* Tracking the progress of the meeting according to the agenda, writing down agreements and decisions
* Provide a summary of the steps within the project which were discussed during the meeting (see also 'role as a board writer' below)
* From the beginning of the case onwards ensuring that (parts of) the minutes can be used for the final group report

**Role as an (online) board writer**

The board writer captures the results of group discussions during the meeting. Specific tasks:

* Identifying potential problem definitions and capture the wording of these definitions
* Writing down and scheduling the ideas that come up during a brainstorm
* Formulate and write down Self Study Assignments (SSA/ZSO)
* Summarize results of self-study assignments (SSA/ZSO) and putting them in an overview

**Role as general group member**

Each group member has the following tasks:

* Honor existing agreements
* Prepare meetings by reading the minutes, conduct self-studies, prepare for oral reporting back the results of the self-study assignment, thoroughly read the case definition
* To promote the group process by taking into account the different group roles
* Providing information and questions at appropriate times during the meeting
* Active listening to the contributions of fellow group members
* Make an active contribution to the different steps of the planning – work plan of the group
* Pay an active contribution to written and oral reports
* Make an active contribution to the planning of the team

Model agenda for the DBL/CBL meetings:

**1. Opening**

* Register attendance/absence
* Set the agenda
* Make agreements on evaluation in the CBL GROUP: what, how and how often. (first meeting of a case)
* Make agreements on the role distribution (first meeting of a case)
* Monitor the agreements on the role distribution (subsequent meetings)

**2. Minutes**

* Discuss and adopt the minutes of the last group meeting.

**3. Announcements**

* Report of the delegate on the student consultation
* Announcements of the tutor

**4. Working on the case in accordance with the step-by-step plan**

A. For the first case meeting

* explain unclear terms and concepts
* define the problem
* brainstorming
* systematic inventory
* formulate self-study assignments (SSA)

B. For the follow-up case meetings:

* SSA progress presentations
* report
* reflect on the problem definition
* brainstorming (if necessary)
* systematic inventory
* formulate SSA's

**5. Reporting**

* discuss the main points of the content of the report or other reports (first meeting of the case)
* discuss and continue to write the report for each component (other meetings of the case)
* discuss the final version of the report (last meeting of the case)

**6. Schedule**

* make agreements on the progress of the case
* make agreements on the progress of the reporting

**7. Student consultation preparation**

* list and formulate questions

**8. Evaluation / Feedback round**

* discuss the work on the case
* discuss the group work

**9. Closure**

# General Data Protection Regulation guidelines (GDPR, or AVG)

During the DBL you collect information about students. You must treat this confidentially and carefully. Don’t leave your notes unsupervised!

It is possible that a student requests to inspect the notes you have made. Therefore, write down clearly what you observe (actually see happening) and not what you think of it (limit your judgements). In that case the student gets to see a professional and objective document.

In addition, you must deal with deleting the data in the following way: “2 months after the end of the DBL, tutors must destroy their notes + peer review + grades sent and remove them from their e-mail”.

# Tips for the project planning phase

This page gives an overview of questions about working in a team and planning. Before the students make a start with the assignment to create a project planning, they should ask themselves questions like these. As a tutor you can toss (some of) these questions both during the DBL meetings; before the students have uploaded their project planning, and after, to refresh their memories about the importance of project planning.

**Planning**

Think of the following elements:

* What is the first thing that needs to be carried out? What’s after that?
* What is the last thing that needs to be taken care of? What right before that?
* Which parts of the project do we plan on what moments? Which deadlines do we have?
* Who is doing what?
* Who keeps track of our planning to see if we are on schedule and are doing what we should be doing?
* Where are we going to work on our project?
* Do we need to have arrangements with other people involved in our project but outside our project team?
* Is the planning SMART (Specific, Measurable, Attainable, Realistic and time-related)
* Are all important elements mentioned in our planning (e.g. final presentation, final report)?

**Tasks / roles / leadership**

Where it is tasks and roles concerned, discuss and decide the following questions:

* Which tasks need to be divided?
* Who is doing what?
* Do we need a project leader / chairman?
* If so, what do we expect from a project leader / chairman?
* Do we need to point out any other roles? If so, which ones? What do we expect from every role?

**Rules in a team**

Possible rules you would like to discuss and decide upon:

* What happens when someone does not stick to their agreements?
* Which information needs to end up in Canvas, Outlook (or Dropbox)?
* How do we deal with different opinions in our group?
* How do we make sure we maintain respect for one another’s point of view?
* How will we give each other constructive feedback?
* How will you take decisions within the group?

**Communication**

Things you probably need to discuss and decide upon related to communication in your group:

* Time and place (when and where do we work together as a project team)?
* How (oral, written, rules)?
* Content (what are you going to discuss with the whole group)?
* How are you going to arrange the briefings between sub groups?
* Frequency (how often do we communicate)?
* Do you need to communicate with people outside the project group? If so, how are you going to do that, what form of communication will you choose?
* Which procedures can you formulate?

**Evaluation / self-reflection**

Consider the following issues:

* How often will we evaluate our collaboration?
* Are we going to give one another feedback? When and how are we going to do this?
* What things can we discuss during such an evaluation / reflection meeting? (e.g. what have we accomplished so far? What is it we still need to do? Is everyone in the group pulling their weight? How do we function as a group?

# Tips for asking open ended questions

Asking open-ended questions during group meetings is a major task of the tutor’s role! In solving engineering design problems, students need to reflect on and explain arguments for the technical design and make decisions. Asking questions can support students to come to their own solutions by adding briefly some piece of information (just-in-time teaching); to explore alternatives for problem solving and problem representation by utilizing different perspectives; or to stimulate that students learn from other students’ plans, knowledge application in problem solving experiments, by asking the students to also give feedback to each other’s self-study assignments.

Below, we provide examples of questions to stimulate students’ critical thinking:

|  |
| --- |
| **Analysing the problem**  • What are the parts or features of …?  • How is \_\_\_\_\_\_\_ related to …?  • Why do you think …?  • What is the theme …?  • What motive is there …?  • What conclusions can you draw …?  • How would you classify …?  • How can you identify the different parts …?  • What evidence can you find …?  • What is the relationship between …?  • How can you make a distinction between …?  • What is the function of …?  • What ideas justify …? Which statements support? |
| **Exploring/ interpreting/understanding results to make decisions for improvement**  • Why do you agree with the actions? The outcomes?  • What is your opinion of …?  • How would you prove …? disprove…?  • How can you assess the value or importance of …?  • What would you recommend …?  • How would you rate or evaluate the …?  • What choice would you have made …?  • How would you prioritize …?  • What details would you use to support the view …?  • Why was it better than …?  • How can you explain what is meant …? |

|  |
| --- |
| **Testing a new solution iteratively**  • What changes would you make to solve …?  • How would you improve …?  • What would happen if …?  • How can you elaborate on the reason …?  • What alternative can you propose …?  • How can you invent …?  • How would you adapt X to create a different?  • How could you change (modify) the plot (plan)…?  • What could be done to minimize (maximize)?  • What way would you design …?  • What could be combined to improve (change)…?  • How would you test or formulate a theory for?  • What would you predict as the outcome of...?  • How can a model be constructed that would change?  • What is an original way for the …? |

*Taken and adapted from: Bloom’s Critical Thinking Cue Questions. Public Consulting Group’s Center for Resource Management, in partnership with the Council of Chief State School Officers (August 2007)*

# Tips to supervise students’ group work

|  |  |  |
| --- | --- | --- |
| **ACTIVITY** | **INTERVENTION** | **QUESTION** |
| 1. Planning | **Problem definition** | What is the problem? |
|  | **Objective** | What is your objective? |
|  | **Research questions** | What are you going to research? |
|  | **Time and work planning** | Who does what in the project? How are you going to stick to that? |
|  | **Planning** | How will you adjust the planning? |
| 2. Organize | **Task division** | How do you decide: who does what? |
|  | **Group organization** | What individually / in sub groups / plenary? |
|  | **Tuning** | How do you tune contributions? |
| 3. Brainstorm | **Rules** | Do you stick to the rules? |
|  | **Inventory** | How do you file suggestions? |
|  | **Sorting out** | How do you sort things out? |
| 4. Process information | **Facts** | Which facts do you have? |
|  | **Analysis** | How will you analyze the information? |
|  | **Interpretation** | What do you know more now? |
|  | **Synthesis** | What conclusions can you make? |
|  | **Report** | What will you write down? |
| 5. Meeting | **Agenda** | What will the meeting be about? |
|  | **Task division** | Who is chair and who makes minutes? |
|  | **Chair** | How do you chair a meeting? |
| 6. Discussion | **Topic** | What is the topic of discussion? |
|  | **Kind of discussion** | What kind of discussion will you have: opinion, analysis, decision making? |
|  | **Participation** | Who is allowed to speak? How long? |
|  | **Method** | Do you introduce the discussion? Do you summarize? Draw conclusions? |
|  | **Problems** | How do you stop a monologue? / treat dominant group members or handle conflicts? |
| 7. Cooperation | **Rules** | What rules are agreed upon by the group members? |
|  | **Norms** | What penalties are there for violating the rules? |
|  | **Task division** | How are the tasks divided, by individuals, by subgroup? |
|  | **Coordination** | How did you organize the tuning between the sub groups? |
|  | **Productivity** | Are there agreements about "output"? |
| 8. Evaluation | **Procedure** | Are there agreements about evaluating the project work? |
|  | **Product evaluation** | What progress has been made in the problem approach? |
|  | **Process evaluation** | How is the cooperation in the group? |
|  | **Method** | How do you evaluate: by making a round? |
|  | **Result** | What happens with the evaluation results? |
| 9. Report | **Reporting** | How do you file the results? |
|  | **Tuning** | How do you tune the contributions of the subgroups? |
|  | **Editing** | How is the end product edited? |
|  | **Styling** | How is the lay-out of the report established? |
|  | **Deadline** | How can you make sure you will meet the deadline? |
| 10. Presentation | **Preparation** | How does the group prepare for the presentation? |
|  | **Task division** | How is the task division for presentation organized? |
|  | **Media** | Which audio-visual media will you use? |
|  | **Content** | Which parts of the report will you use in your presentation? |
|  | **Discussion** | Which agreements do you have about answering questions? |

Taken and adapted from: Powell P. en Weenk W.2002. Project-led Engineering Education LEMMA

# Instrument to evaluate social group processes in an educational setting

The educational learning objectives in projects are **not** only content related. Students do not just work in project groups to learn and remember as much as possible about the project content but also to cooperate and communicate with one another in a better way.

Learning to work and communicate together is promoted when the group regularly reflects on these issues itself to see if progress is being made. For example, by systematically spending the last 5 minutes of each meeting to consider a number of certain issues. It is the job of the chairman (and if left out, that of the tutor) to ensure that this agenda topic is actually discussed.

It is best to decide as a group at the start of the project which issues need to be addressed during these reflection periods and how. Below examples of relevant questions the team could answer as a group.   
  
**How hard do we actually work?**

* I spend enough time studying the learning objectives
* If I cannot immediately find something, I wait for others to give the answer
* I always prepare thoroughly for the (content of the) meetings
* In the group we sometimes settle too quickly for a certain explanation or solution
* I think the other groups have done more so far
* I learn a lot from the input given by other group members
* This is a productive project group
* The substantive progress is proportionately carried out by all group members

**How do we work on the tasks?**

* In this group we work with a clear agenda
* Agenda topics are actually tackled
* Each group member honors the agreements that were made
* We maintain a certain systematic method of working in the group
* In the group we often stray from the topic
* The decision making as a group goes well
* Short summaries are given regularly

**How is the cooperation?**

* Group members listen well to one another
* I can express my opinion in the group
* There is confidence in one another's contributions
* Opinions of some group members are being followed too easily
* I am motivated and stimulated by other group members
* I feel comfortable in the group
* The group is open to divergent opinions
* The group is willing to resolve conflicts

**How does the chairmain contribute to the meetings?**

* Sticks to the agenda
* Stimulates the group to make clear choices when dealing with tasks
* Summarizes regularly
* Prevents us from straying from the topic
* Dominates the discussion
* Gives too little attention to everyone's contributions
* Ensures that the group works according to a specific procedure
* Ensures that the group formulates clear learning objectives

**How does the tutor help us?**

* Stimulates the content related progress of the group
* Helps us to establish content related links
* Can describe exactly how our cooperation functions
* Provides direction to our thinking in regard to the subject
* Leaves a lot to us
* Explains too much to us
* Offers alternatives from which we can choose
* Thinks along from our knowledge of the subject matter

# The use of rubrics to assess and give feedback

**Well-designed rubrics help:**

* Increasing an assessment's reliability by setting criteria that users can apply consistently and objectively.
* Evaluating student work by established criteria reduces bias.
* Identifying the most salient criteria for evaluating a performance and writing descriptions of excellent performance can help teachers clarify goals and improve their teaching.
* Learners to set goals and assume responsibility for their learning—they know what comprises an optimal performance and can strive to achieve it.
* Rubrics used for self- and peer-assessment help learners develop their ability to judge quality in their own and others' work.
* Learners receive specific feedback about their areas of strength and weakness and about how to improve their performance.
* Learners can use rubrics to assess their own effort and performance and make adjustments to work before submitting it for a grade.
* Rubrics allow learners, teachers, tutors to monitor progress over a period of instruction.
* Time spent evaluating performance and providing feedback can be reduced.
* Rubrics help teachers and tutors to move away from subjective grading by allowing them and others, including students themselves, to assess work based on consistent, and often agreed upon, and objective criteria.

*Taken and adapted from: Stevens & Levi, 2005;*[*Fiderer, 1999*](http://www.carla.umn.edu/assessment/vac/references.html#fiderer_1999)*;* [*Goodrich Andrade, 1997*](http://www.carla.umn.edu/assessment/vac/references.html#goodrich_1997)*;* [*SRI International-Center for Technology in Learning, 1997-2002*](http://www.carla.umn.edu/assessment/vac/references.html#sri_1997)*;* [*Eighmey's Think Tank;*](http://www.carla.umn.edu/assessment/vac/references.html#eighmey) [*Kasman Valenza, 2000;*](http://www.carla.umn.edu/assessment/vac/references.html#kasman_2000) *)*

**Rules for giving feedback**

* Give a description of behavior in **neutral** terms (do not be patronizing or judgmental)
* Talk about concrete events and **concrete and recent** behavior, behavior that you observed
* Talk from **your own perspective** and your own observations (I think that…)
* Indicate how the behavior of the other affects you
* Leave room for a **response or questions**
* Give **suggestions** for change, this makes the feedback constructive
* Provide **both positive and negative feedback.** The sandwich method ‘kiss – kick – kiss’ can be used if that feels helpful.

**Rules for receiving feedback**

* Consider feedback to be ´a **gift**´, i.e. look at it as a sign that you are worth being given feedback (if people don’t care, they will say it was just fine)
* Take feedback as a way to **improve** yourself and to improve collaboration with others
* Check to see whether you have understood the essence of the feedback: listen carefully and **ask question.**

# Peer Review procedure

During your DBL/CBL project, you will do a peer review with your groups twice. In short, a peer review is the evaluation by the students (and tutor) who give each other feedback on the contribution and development. It’s (also) being used to assess Collaboration Skills.

The first peer review will be the midterm peer review and will be guided by the tutor (4GA40: trainer from ESA, with tutor present). The goal of the midterm peer review is to provide each other with feedback (tops and tips) and an indicative grade on how your contribution/development is perceived. Students can use this input to work on your strengths and learning points during the remaining weeks of the project. The second peer review will be the final peer review and will be guided by your tutor. The final peer review will also provide you with feedback (tops and tips), but will also determine the individual assessment of each student with a grade.

The peer review procedure documents can be found on the Canvas pages of the DBL/CBL courses. The documents that you need are:

* Peer review procedure
* Rubric
* Group overview

# Student evaluation form (individual assessment during DBL/CBL meetings)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Name tutor:** | | **DBL group:** | **Date:** |
|  | **Name student** | **Role student** | **Assessment by tutor** | |
|  |  |  | **Team meeting aspects** (carrying out team role, behavior/ attitude and contribution during meeting) | **Self-Study Assignments (SSA) aspects** (quality and quantity of SSA) |
| **1** |  |  |  |  |
| **2** |  |  |  |  |
| **3** |  |  |  |  |
| **4** |  |  |  |  |
| **5** |  |  |  |  |
| **6** |  |  |  |  |
| **7** |  |  |  |  |
| **8** |  |  |  |  |

# Rubric for Self-Study Assignment (SSA)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Criterion** | **Fail (Onvoldoende)** | **Moderate (Matig)** | **Pass (Voldoende)** | **Good (Goed)** |
| **Definition of the assignment** | The self-study assignment does not fall within the scope of the project. | The assignment does not have a clear link to the definition of the assignment and adds little value to the project and/or is too difficult/easy. | The assignment fits well within the project planning and the goals of the project but is too difficult/easy. | The assignment fits well within the project planning and the goals of the project. The scope of the assignment is in line with the timing (neither too difficult, nor too easy). |
| **Planning / execution** | The assignment is not executed. | The assignment is not completed and/or the sub results are not handed in on time. | The assignment is completed but is not handed in on time.  However, the results were included correctly in the project result afterwards. | The assignment is executed well and handed in on time, and can be considered as completed.  The results can be used in the continuation of the project. |
| **Contents / Result** | The assignment is not handed in or does not have a clear link to the project goal. The sub results are therefore useless for the project. | The assignment is incomplete and /or executed incorrectly. However, parts of the assignment are substantiated (qualitatively).  . | The assignment is substantiated with calculations originating from related theories, and these calculations are applied to part of the results. | The assignment is substantiated with calculations originating from related theories, and these calculations are applied to all of the results. |

# Rubric for Peer Observation

To be used by tutors to observe a peer tutor; to be used by the tutor as part of final report.

**Tutor name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Peer tutor name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Date observation:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Observation 1 / Observation 2**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **1 – Fail** | **2 - Pass** | **3 - Moderate** | **4 - Good** | **Observations/comments** |
| Tutor roles | Tutor does not take on clearly any of the tutor roles   * supervisor * assessor * motivator | Tutor does take on some of the tutor roles   * supervisor * assessor * motivator | Tutor does take on tutor roles most of the time   * supervisor * assessor * motivator | Tutor does take on the tutor roles all the time   * supervisor * assessor * motivator | Which roles can still be improved? |
| Tutor tasks | Tutor does not give feedback on team work and process, progress on weekly assignments; motivating and complementing the group; facilitating the process with questions | Not all tasks are completely performed by the tutor or need improvement, e.g. giving feedback on team work and process, progress on weekly assignments, motivating and complementing the group; facilitating the process with questions | Tutor tasks are all performed most of the time e.g. giving feedback on team work and process, progress on weekly assignments; motivating and complementing the group; facilitating the process with questions | All tasks are completely and performed all the time, e.g. giving feedback on team work and process, progress on weekly assignments; motivating and complementing the group; facilitating the process with question | Which tasks were carried out well? Which tasks were forgotten or could be done better? |
| Critical situations (if applicable) | Tutor does not attempt to solve the critical situation in the group | Tutor tries to solve critical situations in the group but (s)he does not use an approach consequently | Tutor tries to solve critical situations in the group and (s)he uses an approach consequently | Tutor has dealt appropriately with critical situations o that no more problems are encountered | Tips and tops for improvement |
| Supervising the group | Tutor is not well prepared to supervise the process (e.g. before the meeting no preparation/did not read weekly assignments; not focused and not making notes during the meeting, not asking questions to steer). | Tutor is prepared to supervise the process (e.g. before the meeting no preparation/read weekly assignments; during the meeting), but he does not provide clear guidelines or does not ask questions on  what and how to improve to steer the group. | Tutor is prepared to supervise the process (e.g. prepared before the meeting / read weekly assignments; involved during the meeting), but he does not provide clear guidelines on what and how to improve / could steer more by asking questions. | Tutor is prepared to supervise the process (e.g. prepared before the meeting /read weekly assignments; involved during the meeting). Tutor also reviews the formulation of the learning outcomes for the next self-study assignment and steers by asking questions. | What is good/less good about supervising students? What can be improved? |
| Motivating the group | Tutor does not use motivation techniques to motivate the group in difficult situations | Tutor gives some tips to motivate the group in difficult situations | Tutor provides some clear guidelines to support the group in difficult situations most of the time | The group is motivated itself to tackle difficult situations and where needed the tutor provides clear guidelines. | What went well / wrong in motivating the students? What can still be improved regarding motivation of students? |
| Giving feedback | Tutor does not provide clear feedback on self- study assignments, nor on progress on planning, methods, or team roles. Tutor does not use the rubrics for feedback.  Feedback does not include clear guidelines on what and how to improve. Tutor does not use rules for giving and receiving feedback | Tutor does provide some feedback on self-study assignments, or on progress on planning, methods, and on team roles. Tutor uses sometimes the rubrics for feedback.  Feedback does not include clear guidelines on what and how to improve. Tutor does not use rules for giving and receiving feedback | Tutor does provide clear feedback on self- study assignments, on progress on planning, methods, and on team roles. Tutor uses the rubrics for feedback.  Feedback does include some guidelines on what and how to improve. Tutor uses rules for giving and receiving feedback | Tutor provides clear feedback on self- study assignments, on progress on planning, methods, and on team roles. Tutor uses the rubrics for feedback and adds more suggestions from personal observations. Feedback does include clear guidelines on what and how to improve. Tutor uses the feedback rules | How can improve giving feedback to the students? |
|  |  |  |  | **Overall assessment** | **Fail/Pass/Moderate/Good** |

Short feedback of the peer tutor based on observations (in case of observation 2, please indicate the improvement in relation to observation 1)

# 20. Presenting (Professional Skill)

From the second quartile of the first academic year, students practice their presentation skills during the group meetings, by giving a short presentation (i.e. 5 minutes maximum, one PowerPoint slide) on their self-study assignment. The tutor **always** gives instant feedback on this presentation, using the rubric Presenting Skills (see chapter 20).

Every student should presents 2 times during DBL project.

In quartiles 1.3 (project **4GA40**) and 2.4 (project **4GB20**) the student also receives an **official** assessment for this professional skill from the tutor. For the assessment the tutor also uses the rubric Presenting Skills.

# Rubric Professional Skill Presenting

Name + ID number student:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Name tutor:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DBL group:\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Good (GO)** | **Sufficient (VO)** | **Insufficient (ON)** |
| **1. Organization and structure of the presentation** | The presentation is well prepared. It is structured, with clear organization of ideas and results. The subject is introduced and the main points are carefully brought out and the goals and sub goals are clear. The conclusions are clearly stated and focused on the key issues. | The presentation is prepared. It is structured, but not always in a logical sequence. The subject is introduced, but is not completely clear, which makes it sometimes difficult to see what the main issues are and what the goals and sub goals are about. The conclusions are stated, but their link to the main issues is not always clear. | Presentation is poorly prepared. Subjects and ideas are difficult to understand, because there is no clear structure. The main point is insufficiently emphasized and it is not clear where the speaker is heading. The conclusions are not clearly stated. |
| **2. Use of visual aids and other resources (e.g. graphics, drawings, computer)** | Visual aids and resources support the different parts of the presentation clearly. | Visual aids and other resources are used, but there is too much information on the slides, which make them confusing. Visual aids do not completely support the message. | No visual aids and resources are used, or are used wrongly. The information on slides is confusing. |
| **3. Contact with audience** | Student keeps eye contact with audience while talking and rarely looks at the paper. He was open to questions and handled them well. | Student occasionally looks at the audience and reads from the written notes. | The student looks away from the audience, and reads everything from the written notes. Tries to avoid questions. The technical level is too high or too low for the audience. |
| **4. Verbal articulation** | The student has a clear verbal articulation; he uses pauses, has an adequate intonation and communicates concisely, using engineering terminology. (Clear and correct English, if applicable) | The student articulates properly, but speaks quickly and is difficult to follow. (English not always clear and correct, if applicable) | The student doesn’t articulate properly and is difficult to understand. (Broken English, barely understandable, if applicable) |
| **5. Position and enthusiasm** | The student gives a lively speech and performance. Student radiates self-confidence and is enthusiastic about the topic. | The speech lacks a bit of liveliness and could improve the performance. Student explains ideas with enthusiasm, but is not confident about what he is presenting. Student shows interest in topic and makes minor mistakes. | The student has a monotone voice and behavior, or has distracting nervous ticks. Student moves constantly, makes mistakes and shows no interest in the topic or is unsure about what to say and what not to say. |
| **6. Time management** | The presentation finishes within the given time period. | The presentation finishes a bit later than the given time period, and the student has to rush to present last slide(s). | The presentation doesn’t finish within the given time period, and thus not all slides are presented. |

**Overall assessment by tutor: ON / VO / GO**