CBL @ ECIU, Assessment for pilot 2

Version 02. March 2021

Content

If you have any comments, suggestions or other feedback please contact:

Siska Simon   siska.simon@tuhh.de
Frank van den Berg   f.m.j.w.vandenberg@utwente.nl
Svante Gunnarsson   svante.gunnarsson@liu.se
Katrin Billerbeck   katrin.billerbeck@tuhh.de

1. Introduction

Great that you participate in pilot 2 of the ECIU University. Together with you and the students we want to make this pilot a great learning experience.

With this document we want to give you information on the monitoring and evaluation of the team that you will coach in this extracurricular pilot.

Expectations of the students

The students applied for participating in an ECIU challenge. On the ECIU website they were given the following description of what they could expect:

- participate in the challenges, solving a relevant problem in an academic way (using critical thinking, relevant literature, systematic working) and contribute to the real impact in communities, cities or regions.
- learn new knowledge in a specific discipline and apply this when solving a relevant problem
- work in multidisciplinary and international and/or multi-cultural teams virtual or in presence that allows them to gain professional cooperation skills and build up inter-cultural competences and increase their network of expertise.
- communicate professionally with stakeholders, teachers, experts, oral and written and using appropriate media

Assessment: monitoring and evaluation of teams and individual students

Based on the items above, we designed a single point rubric for evaluation, see the next page. In this document only one level is defined, the sufficient level. As teacher you are asked to fill out this form and include feedback in tops and tips: tops when you think the student reached that level or exceeded it, and tips when the student did not yet reach the appropriate level; in the latter case please describe what can be improved and a suggestion how to improve it.

For some aspects you can form your own opinion, based on what the team delivers; for other aspects you might need input from the team members. This is indicated in the form.

Core to CBL is that students are in charge of their own learning. This means that they also define own learning goals. These personal learning goals you can discuss with the students in the first or second meeting, the students can include these in their personal evaluation form (see appendix 4: Large).

Tip: It might help if you ask the student to think about ways how they want to reach their personal learning objectives and how they will show they have reached them.

Outcomes to evaluate

The student team will generate the following items:
- specified outcomes per step in CBL (see appendix 1 for a description of these outcomes)
- a group reflection report where they reflect on the whole process and what they have learned (approx. 3-7 pages group report). Each student should include 1 A4 individual reflection on their own role, contribution and learning in the project. For more information on reflection, please see appendix 4: Small, Medium, Large).

Use of evaluation form

We kindly ask you to use the form for monitoring, evaluating and giving feedback to the student team and the individual student members. As CBL is all about learning, you can use this form during the whole process (e.g. when students conclude one step of CBL and go to the next step; the aspects can then be used to help the students reflect on their work to that moment). In appendix 2 you can find a list with suggestions for possible questions to ask at the end of each step in CBL.

2. Single point rubric - Evaluation form ECIU University pilot 2

Note for teachers:
Please include in your evaluation *what* can be improved and a suggestion on *how* to improve.
Some aspects are on an individual level, other aspects on group level. In the last column we give suggestions on how to get information for the aspects.

Please think about how you can involve students in this evaluation process. Maybe teams can describe own aspects. Also some aspects might be evaluated by peer-to-peer evaluation (students evaluate each other) or/and you can use the reflection forms in the appendix.

Points and tips for improvement	Description of level to achieve - standard	Exceeds standard	Information: Individual / Group
Example: Bring up problems in the group early so that they do not escalate.	*Collaboration* cooperates well with multi-disciplinary, international team members and other parties involved; fulfills agreements and executes tasks.	*Example: Great how you devided the tasks among yourselves so that you all could learn the most.*	*Individual + Group*
	Communication Communicates clear and in appropriate language, both orally, in writing and digitally, with all stakeholders involved (peers, teacher, challenge provider, other stakeholders).		*Individual + Group*
	Problem solving Clear challenge definition, academic approach to finding solution (including critical thinking, use of literature, analysis of data, systematic working, design cycle etc.).		*Group* *Look at outcomes of CBL-steps.*
	Knowledge development Has mastered new disciplinary knowledge at appropriate level, and applied it when the team designed, implemented and evaluated a solution to the challenge.		*Individual* *See reflection report on content contribution of team members.*
	Criterium 1 to be decided by student		*Individual*
	Criterium 2 to be decided by group		*Group*

Appendix 1: Overview of steps in CBL and expected outcome

Please note: The team should document and reflect in every step and share their results, so other people can learn from their experiences. It is easier to get talking about the learning process if they can show what they have worked on.

Engage Phase

Step 1: Share a Big Idea
Given by external provider.

Step 2: Find essential questions
The team asks all kinds of questions to make the Big Idea clearer to them, find the relevance for themselves and find out many aspects that relate to the Big Idea.
=> outcome: list of questions, more clarity on the essence of the Big Idea for the group.
Important: no solving of problem, so no jumping to solutions.

Step 3: Create a Challenge
The team defines the challenge they want to work on, that is realistic for the time they have and with the effort they want to put into it, and that calls for action from the team.
=> outcome: clear and specific definition of the challenge the team will work on, and is doable in the time they can spend on designing, implementing and evaluating the solution.

Investigate Phase

Step 4. Identify guiding questions
The team asks all kinds of questions to find out what information they need to solve the challenge, what information they already have and what topics they need to learn.
=> outcome: overview of additional knowledge/skills the team needs to acquire and where and how to get that information.

Step 5. Identify guiding activities and resources
The team takes the steps to find the additional information and learn new knowledge/skills.
=> outcome: additional information.

Step 6. Do the analysis
The team analyses all additional information in relation to their challenge. What does it mean? All questions from step 4 should be answered.
=> outcome: good understanding of challenge, including causes.

Act Phase

Step 7. Come up with a solution
Based on step 6, the team designs several possible solutions for the challenge. Requirements for the solution are formulated as well. Based on the requirements the team chooses the best solution, and makes a concrete design.
=> outcome: possible solutions, solution requirements and design of best solution.

Step 8: Set up implementation
The team implements the solution in the real-life situation of relevant stakeholders.
=> outcome: solution implemented (e. g. putting a prototype in the right place, handing out a concept to a group of users)

Step 9. Share evaluation
The results are evaluated to see whether the challenge is really solved or not. Lessons are drawn, both on the process as well as on the content. Results are shared with the wider public.
=> outcome: solution evaluated and shared, reflection and feedback

Appendix 2: Possible questions after each CBL step

Below you can find suggestions for questions you can discuss with the team at the end of each step of CBL to foster discussion and help the team to realize if they have thought about everything necessary. Feel free to use this or not, add questions, ask the team at an earlier or later time.

Step 1: Share a Big Idea
What is your interpretation of the Big Idea? Why did you choose it? What interests you? How does this Big Idea relate to your life? Do you have personal relation to the Big Idea? Do you have competencies that could be useful? Do you have contacts that could help?

Step 2: Find essential questions
Are these all questions you need to ask? Do the questions give an idea of the complexity of the big idea? Are all questions open ended (without an idea of solution included)?

Step 3: Create a Challenge
Is the challenge defined in a specific way? How do you know this? Can it be done in the time you have available? Does the challenge provider agree with this? Is it motivating for you and your team?

Step 4: Identify guiding questions
Did you define every aspect of the challenge you need to know more about? Have you defined all additional knowledge you need to know to solve the challenge? Have you used all currently available knowledge in the team? How and when will you know you have gained sufficient new knowledge?

Step 5: Identify guiding activities and resources
What could be useful to find answers to the guiding questions? Does everyone know exactly what to do during research time? Do you plan to do some experimental research? What resources are you going to use?

Step 6: Do the analysis
Did you explain the core ideas of the new information? How do these relate to the challenge? What does this mean for the challenge? Are all questions from step 4 answered?

Step 7: Come up with a solution
Are the proper requirements considered? How do you know? What do the stakeholders think about this? Does the solution concept still fit your challenge definition (of step 3)? Is all relevant information of step 6 considered?

Step 8: Set up implementation
Does the solution meet the requirements of step 7? How do you know? Does it actually solve the problem? What are the stakeholders' responses? Does it meet the expectations of the challenge provider?

Step 9: Share evaluation
What method did you use for evaluation? Why this method? What did you find? Have you found a solution for your original challenge? Looking back, what did you do well and what could you have done better? Why and how?

Appendix 3: Information for students: Gibbs reflective cycle

Gibbs' reflective cycle
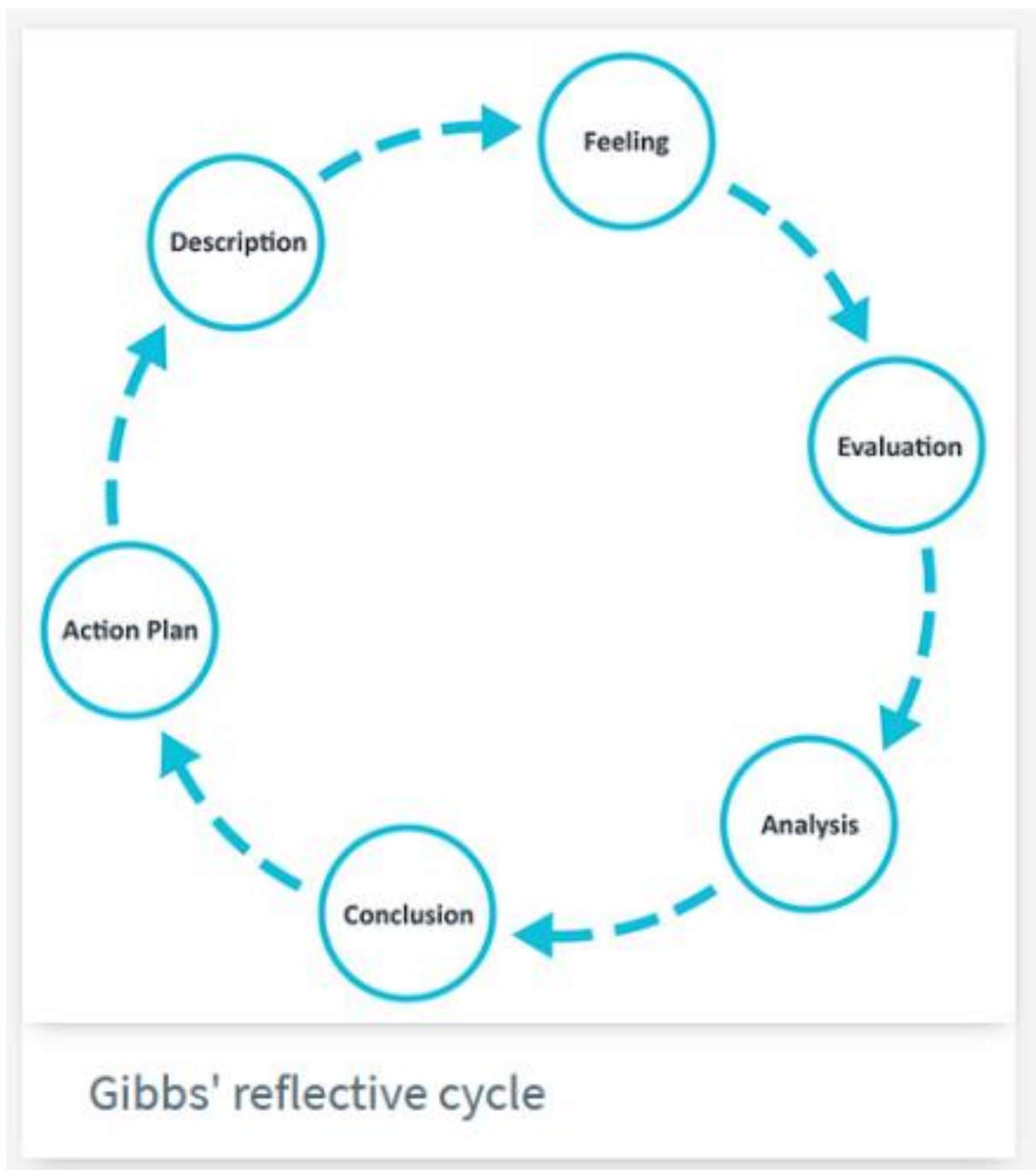
Reflection is a very powerful tool in learning. With reflection you can learn from your own actions and improve upon them for the future.
Good reflection takes several steps, starting from a description of the plans and actions, all the way to concrete intentions for future behavior. The Gibbs Reflection Cycle is a very useful tool for this.

More information on this reflection cycle, including clear examples, can be found on the following website:
https://www.ed.ac.uk/reflection/reflectors-toolkit/reflecting-on-experience/gibbs-reflective-cycle

Appendix 4: Different examples for individual and group evaluation

SMALL (one page) [1]

To reflect your group work regularly (e.g. every two weeks) or if you do not have a lot of time or you feel a conflict might arise you can use this target at any moment of the CBL project.

How is it done?

Everyone thinks a couple of minutes on her/his own and then with a signal everybody fills out the chart at the same time using a cross to mark where he/she thinks the group process is at the moment: *The closer to the middle the better you think this aspect is doing right now.*

Then you look at the picture that is showing. How do you interpret the picture? Even if there is only one cross isolated far away from the middle you should talk about that aspect. What can help to move that cross closer to the middle?

The group discussion is effective.

We treat each other with respect and focus on solutions rather than problems.

Our time management is working out well.

All team members come to the meetings well prepared.

The tasks I need to do are doable and fair.

Space for your own aspect
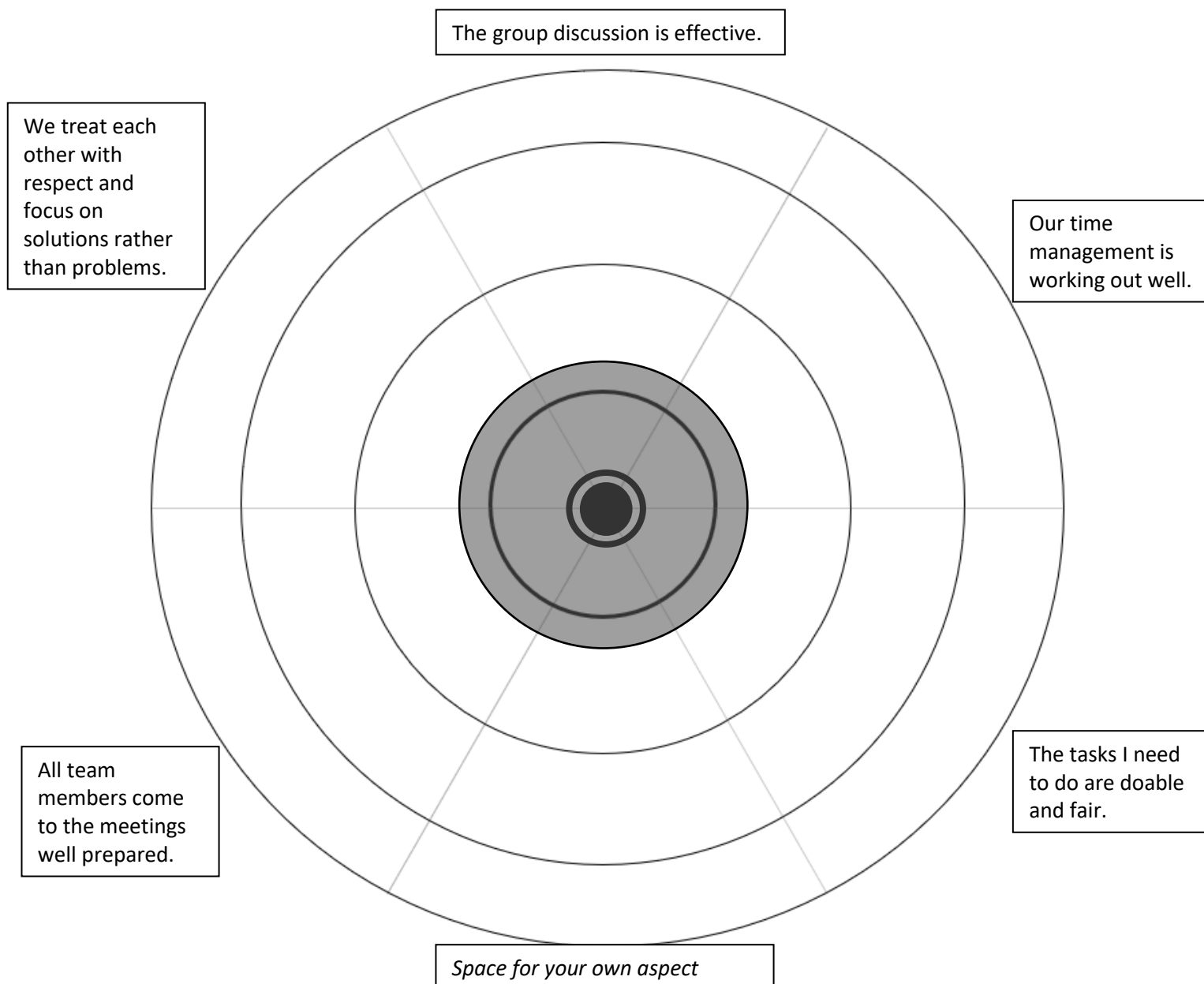
MEDIUM (page 1) [2]

Please reflect on the work process in your team using the following questions. Make additions independently if an aspect of your team work that you think is important is not listed.
After each team member has filled in the table, you can exchange what is on your mind.

What CBL step are you doing right now? Is everyone aware of what needs to be achieved? Are you satisfied with the achieved team answer(s)?	
Are you still in time concerning your project plan? Why/Why not? What do you plan to change to stay on track? Why?	
How did you develop solutions to problems that might have appeared during your team work? Did you ask for help (by your teacher/other students)? Why/Why not?	
At which stages of your team work did you deviate from your initial project plan and why? Did everyone agree on the way of proceeding?	
What have you learned so far from your work as a team? What is still bothering you? What could help to come over this hurdle?	
What else is there to be asked at this stage?	

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[2] The document is inspired by a workshop with Petra Jordan, University of Dresden and added by S. Simon

MEDIUM (page 2)

Please fill in the following evaluation form anonymously by ticking to what extent the following statements apply:

Statements on team work	Fully agree	Rather agree	Rather disagree	Totally disagree
I think that our team approached the challenge in a structured and focused way.	☐	☐	☐	☐
I know the tasks of my role in this team and think it is useful and important.	☐	☐	☐	☐
The discussions in our team were mostly effective and based on the subject matter.	☐	☐	☐	☐
In our team we helped each other and focused on solution rather than problems.	☐	☐	☐	☐
Everyone tried to resolve conflicts in the group constructively.	☐	☐	☐	☐
The process of decision making is transparent and fair.	☐	☐	☐	☐
Important decisions in each CBL step were made together.	☐	☐	☐	☐
The difficulty level of this team work is appropriate.	☐	☐	☐	☐
I know my responsibilities and have no problems fulfilling my tasks.	☐	☐	☐	☐
I am satisfied with the process of our team work.	☐	☐	☐	☐

Here you have space for your personal comments. What do you particularly like about this team work, what do you like less? What would you like to change?

_____

_____

_____

_____

Group Reflection Report
Please include in the report a group reflection on the application of all CBL steps, on cooperation, on communication and on problem solving. This report should be about 3 – 4 pages.

Individual Reflection Page
In the individual reflection (approx. 1 A4 per person) please include your personal strengths and improvement points on new disciplinary knowledge, your contribution to the team and your personal learning objectives.

Front page:

GROUP REFLECTIONS
+ INDIVIDUAL REFLECTION

Author

Version 1.0

Status

Reviewed	*Jo, Eve*	*01/01/2011*
Approved	*Chief of department: Judith*	*01/01/2011*

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³ The document is inspired by the corresponding document in the LIPS project model, developed and used at Linköping University. See also http://lips.isy.liu.se/en/

PROJECT IDENTITY

Number of the Project Group, Year / Semester, Name of the Project Group
University or Faculty, Institution

Participants of the group

Name	Responsible	Phone	E-mail
Anna Andersson	Responsible for Customer relations (CUS)	013-11 22 33	Annan111@utwente.nl
Beata Bson	Responsible for the Documentation (DOC)	013-22 33 44	Beabs222@utwente.nl
Cecilia Cson	Responsible for the design (DES)	013-33 44 55	Ceccs333@student.liu.se
Doris Dson	Responsible for the testing (TEST)	013-44 55 66, 070-111 22 33	Dords444@student.liu.se
Erik Eson	Responsible for the quality (QA)	013-55 66 77	Eries555@tuhh.de
Fredrik Fson	Responsible for the implementation (IMP)	013-66 77 88	Frefs666@tuhh.de
Greta Gson	Project leader (PL)	013-77 88 99	Gregs777@student.liu.se

E - mail list for the whole group: e-mail address to the group
Web site: address to the group web site

Customer: Customer description, 581 00 Trento,
Customer phone: 013-11 00 00, Fax: 013-10 19 02, e-mail address
Customer contact: name, tel., mobile number, e-mail address
Course leader: course leader, office, e-mail address
Tutor: name, phone number, mobile number, e-mail address

Contents

Document history

Version	Date	Changes	Sign	Reviewed
1.0	05/03/2011	Small corrections	ts, ckr	
0.2	03/02/2011	Proofreading	gc	ts, ckr
0.1	01/01/2011	First draft	ckr	
…	…	…	…	…

Appendix

Nr.	Date	Content	Sign
1	05/03/2011	Foto	ts, ckr
2	03/02/2011	Film	gc
3	01/01/2011	Calculations	ckr
…	…	…	….

1. TIME REPORT

Text

Distribution of the work between the project participants

Text

Comparison between planned and spent time

Text

Phase	Planned time	Used time
Before		
During		
After		

ANALYSIS OF WORK EFFORTS AND PROBLEMS

Text

What happened during the different Phases?

Text

Collaboration in the group

Text

Collaboration with the sponsor

Text

Collaboration with the supervisor

Text

Technical problems/success

Text

2. FULFILLMENT OF THE GOAL

Text

Summary of achievements

Text

How the delivery worked out

Text

How the study situation influenced the project

Text

3. SUMMARY

Text

The three most important experiences

Text

Good advice to those who are going to perform a similar project.

Text

See next page for individual reflection!

4. INDIVIDUAL REFLECTION

Text

My personal learning goals

Text

My role/task/contribution in the team

Text

My strength and next development steps

Text

If you like you can use also this table to focus on your development.

Grow: What do I want to improve in the future in relation to my learning goal?	My learning goals and what I have learned	Glow: What can I do already very well and want to keep?	Comments of me or others
Example: I want to speak louder and with more power.	*Example: I can deliver a professional presentation.*	*Example: I can design a power point with a clear structure and well readable slide.*	*Example: My timing was according to plan and everyone could hear me speak.*

Appendix 5: Example for the final individual and team reflection after finishing the whole CBL project – feedback [4]

What do you need?
You can do it online (e. g. using a Padlet or a Flinga board) or offline using a board and pin cards.

How does it work?
You ask your students to spend at least 10 Minutes to write down what they want to say to each part of the table below (one thought on one card). They keep their cards or their posts outside the table. Ask after ten minutes if they need another 5 minutes or so.
After everyone has stopped writing, the first one starts moving her/his card (one after the other) and explaining her or his thoughts to the group. Everyone can ask questions if something is not understood. Students are not supposed to comment before everyone was at the board and has pinned/put their thoughts into the right spot at the table.

After that you look at the table together and open the discussion on the mentioned topics and thoughts.

You end with summarizing the lessons learned and thank the group for their feedback. Everybody should leave the room feeling great and with a bunch of new ideas and thoughts.

	☺️ I liked	☹️ I did not like	😃 My solution, advice or open question
Organizational level (e. g. teacher, university, ECIU)			
Team level (e. g. meetings, tasks, project plan, working process)			
Personal level (e. g. learning experience, high lights, low lights, personal gains or losses)			

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[4] This method was designed by/for the Interdisciplinary Bachelor-Project of the TUHH more see here: https://www2.tuhh.de/zll/en/idp/