PROBLEM-BASED LEARNING
PBL GUIDE

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APPENDIX 1: LINKS TO TUTORIAL DOCUMENTS

    1 Tutorial Timetable
    2 Tutorial Memo Template
    3 Assessment Tools

(1) Introduction

The purpose of this PBL manual is to orient the learners to problem-based learning (PBL). PBL is an approach that activates the students to take responsibility for their own learning. It challenges them to learn through engagement in a real problem. It simultaneously develops both problem-solving strategies and disciplinary knowledge bases and skills by placing students in the active role of problem-solvers.

Dear Reader

With this manual, we would like to tell
How we're using PBL
To give our students confidence
Providing them with competence
That goes beyond the content base
And carries through their career days

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This manual includes excerpts from the following publication:

Helelä, Matti and Fagerholm, Harriet (2008). **Tracing the Roles of the PBL Tutor. A Journey of Learning.** Haaga-Helia Publication Series. Discussion 10/2008. Haaga-Helia University of Applied Sciences, Helsinki. Available in pdf format at http://www.haaga-helia.fi/fi/tutkimus-ja-kehityspalvelut/julkaisut

Tutorials form the core of PBL. Social construction of knowledge takes place in tutorials. The socio-constructive learning approach is also present in projects and teamwork, but usually the tutor is not present in student project meetings, and therefore PBL tutorials are the backbone of the PBL process. The tutor is present, helping the participants to become aware of the various perspectives and characteristics of the process. The tutor also helps to bring the group back to track, when needed. However, the tutor mainly remains on the side, helping the group to replace the tutor in many ways along the process. Occasionally, the tutor could be totally absent.

We believe in instruction
Through social knowledge construction

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We believe that the creative development needed in knowledge-based work and study requires genuine interaction within the working and learning community. People can gain results and maintain their personal strength best through joint contemplation and by learning from the others.

Our understanding of PBL is determined by how we view the world, the human being and knowledge. We have a participatory worldview: the human being needs other people to develop. We see the individual as autonomous, responsible and active. People create knowledge together in interaction and each individual gives knowledge his or her own meaning.

In our work, we constantly ask ourselves: How does learning develop and support the following skills, much called for in the workplace today and tomorrow?

Responsibility for one's own learning
Assessment of one's own learning and action
Setting personal goals
Self-confidence
Information search
Analysis of information (into knowledge) and finding the essential
Applying knowledge
Analytical approach, problem recognition, creative problem solving, critical thinking

Argumentation skills
Respect for others
Teamwork and cooperation skills
Feedback skills
Presentation skills

According to our experience, problem-based learning provides an ideal framework for learners to develop these skills through guided teamwork and independent study. PBL can be defined as social construction of knowledge, or, in other words, constructing knowledge together in tutorial work and projects. We find the PBL cycle, including the tutorial process and preparation for the tutorial through personal study and possible group work, to be the core process or the spine of PBL.

Without interaction
We learn a fraction
Together we learn indeed
The skills we really need

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We consider PBL to be a learning philosophy. Hearing people talk about "the PBL method" sounds wrong every time, like a false key or dissonance, reflecting a narrow view or even a misunderstanding of the whole concept. In fact, the PBL approach gives room to a wide spectrum of various methods that can be incorporated into the learning cycle. For example, lectures and workshops of various kinds, held between the tutorials, may be part of the cycle, representing the step reserved for information search, teamwork and independent study. PBL studies may also include projects, and tutorials can effectively support project work and vice versa.

Even PBL tutorials with the various steps are good venues for creativity. While it may be safe to observe a familiar pattern in the first few tutorials, creativity is always welcome and it doesn't have to contradict with the chosen PBL model. On the contrary, creativity may support the chosen model.

Although the discussions in PBL tutorials focus on the relevant professional contents, the core of the learning is actually more on the process and skills rather than on the contents. One could say, perhaps, that the contents serve the learning of the process skills. And, at the same time, the process skills help the learners to critically view the contents more and more as they develop their process skills. Through student-centred learning, the learners gain more and more self-confidence, which is often the key to success on a personal and professional level.

Let's have an example of one of our PBL tutorials for a new beginning group of sales students. It was their first tutorial ever. The student chosen for the role of the observer gave her feedback at the end, saying that the team members succeeded surprisingly well in arguing their views. One of the participants found this comment surprising and very valuable, something she wouldn't have thought about. She began to think: Did I really argue my reasoning? In other words, the observer's comments helped her to reflect on her argumentation skills. This was an encouraging sign of personal reflection: the student began to assess her own skills in her very first PBL tutorial.

(2) 8 Steps

In problem-based learning, each learning task is approached systematically step by step. The 8-step approach used in this course means that each learning task is opened (steps 1 – 5) and closed (steps 6, 7 and 8) in a clearly structured fashion. Each opening discussion results in clear learning objectives formulated by the student team itself. After an active personal study, the students close the learning task together in a closing discussion.

Students open a new learning task in each tutorial session, including the formulation of new learning objectives. To prepare for the next tutorial, each student finds and explores relevant information. The students close the learning task in the next tutorial by sharing what they have learned during personal study. The purpose is to understand the theoretical concepts and to apply them to practice.

After closing the learning task in the tutorial, the students open the next task. This means that they define new learning objectives based on the "ill-defined problem" given by the tutor in the form of a text or videotape or another "trigger". Students themselves take turns as the discussion leader, the recorder and the observer, while the instructor's role as the tutor is to facilitate the flow of discussion with guiding questions when necessary.

By explaining their own reflection and hearing other perspectives, students learn and build up their own knowledge more effectively than they would by listening to readily given solutions. Between tutorial sessions, instructors or business experts may give some well-focused lectures, used among other relevant information sources. Any project reports and assignment are based on the themes supported by the tutorial sessions.

The 8-step approach to open and close each learning task proceeds as follows:

Opening
1. Clarifying unfamiliar concepts
2. Defining the problem
3. Brainstorming
4. Analysis / Systematic classification
5. Formulating learning objectives

Closing
6. Personal study
7. Closing discussion
8. Evaluation

Except for the first and last tutorials of the course, each tutorial starts with a closing discussion and evaluation (step 8). This usually takes 1 hour and 20 minutes. The subsequent opening discussion (steps 1 to 5) usually takes 60 minutes. A suggested timetable is provided through a link given in Appendix 1 (link group 1).

The following description of the 8-step approach is written directly for students. Thus, the style of the text is instructional.

Step 1: Clarifying unfamiliar concepts
- Read or view the trigger given by the tutor.
- To understand the trigger, check any unfamiliar terms and ask what they mean.

Step 2: Defining the problem
- Discuss the trigger.
- Think about the possible problems and formulate one.
- Ask yourself: "What is going on here?" The word "problem" here refers to what the trigger is all about. In other words, defining the problem is comparable to giving a title to the issue, in the form of a sentence: either a statement or a question.

Step 3: Brainstorming
- Elaborate on the problem and think about what you already know about the problem area.
- Write down words, concepts and ideas related to the problem.
- Try to come up with many ideas and do not be critical at this stage.

Step 4: Analysis / Systematic classification
- Give the results of your brainstorming to the recorder.

- Assisted by the recorder, analyze the results of the whole team's brainstorming.
- Think about the relations between the different concepts.
- Use these concepts and their relations to build a conceptual framework or map, also called "working theory," based on your conceptions.

Step 5: Formulating learning objectives
- Formulate two to four learning objectives in the form of questions or statements.
- The learning objectives should guide you to apply new theoretical concepts to a jointly selected practical solution, related to the trigger or a chosen company, product or phenomenon.

Step 6: Personal study
- Study the required and hopefully the recommended sources. You are also expected to find more sources yourself, since one major goal is to learn to find, evaluate and apply new sources to practical solutions.
- Keep the learning objectives clearly in mind. Instead of reading every word or line in your text, try to find answers to the learning objectives, since they are the guiding light in your study.
- Apply the content of your study to the example given in the trigger or to the context chosen for the learning objectives. To apply theory, you are expected to find and analyze relevant examples in the real world (outside the textbook), including your own experiences. In a project course, you should make a strong application to the context of your project.
- Make notes to check that you understand the main ideas in your study. Making notes helps you to prepare for the closing discussion.
- Draw a concept map or illustrations of the outcome of your study. You may combine the various theories you have studied or even improve them according to your own views if you can argue your perspective.
- Compare your findings with the concept map (categorization of brainstorming) in the opening memo, to understand your learning.
- Write down your sources and try to evaluate their reliability. In other words, prepare to explain to your team members with whom you have been "discussing."
- Contemplate your learning process. In other words, make some notes about how the material affected your thinking. (This will also help you to include qualitative comments about your learning in the theme-specific self-assessment forms that you are expected to hand in.)

Step 7: Closing discussion

- Be present in the tutorial and arrive on time. It is better two be ten minutes early than one minute late.
- Contribute to team knowledge construction by sharing your learning. Provide information and suggestions for joint consideration and public debate.
- Argue your opinions and perspectives.
- Use the whiteboard and audiovisual tools to facilitate your presentation when applicable.
- Ask questions to check your understanding and to challenge the others.
- Listen to the others. Give critical and constructive feedback about their ideas and perceptions. Challenge their statements with well-grounded argumentation.
- Move between different perspectives and try them.
- If needed, adopt another person's perspective and evaluate it critically.
- As a team, try to come up with a shared view of the key concepts and models. In addition to solid theory, make a strong application to the example given in the trigger or to the context chosen for the learning objectives.

Step 8: Evaluation

- Evaluate the level of the discussion from the perspectives of (1) group dynamics and (2) your learning in relation to reaching the learning objectives.

(3) TUTORIAL TIMETABLE

The following table shows a suggested schedule and structure for the tutorial. In this model, the closing discussion (steps 7 and 8) takes one hour and twenty minutes, including ten-minute feedback given by the observer. Then we take a break for ten minutes, and after that our opening discussion (steps 1 – 5) includes one hour. Sometimes we may finish a little earlier, but there is no feeling of rush when we have reserved 60 minutes for the opening.

Table 1. Suggested Timetable for a PBL Tutorial

Suggested Timetable for a PBL Tutorial			
8:15		DL arrives and makes sure the tables are in a PBL formation. Everyone is seated with their papers and nameplates ready before 8:30	
8:30–8:35	Step 7	Appoint/announce the **recorder** and **observer** Assess the **previous memo** Check/amend the **agenda**	**Close**
8:35–9:35		**Closing discussion** • What sources did you study? • Discussion based on the DL's agenda and questions • Involve everyone!	
9:35–9:40		Closing **summary** by recorder	
9:40–9:50	Step 8	**Evaluation** by observer	
10:00–10:05	Step 1	Read **trigger** and clarify **unfamiliar words**	**Open**
10:05–10:15	Step 2	Define the **problem** • Discuss the issue briefly • Recorder writes down all the suggestions • Name the issue	
10:15–10:45	Steps 3–4	**Brainstorm** and **categorize**	
10:45–11:00	Step 5	Formulate the **learning objectives and keywords** • Recorder writes down all the suggestions • Select two or more learning objectives • Select keywords for information search	
	Step 6	**Personal study**	

(4) ROLES IN THE TUTORIAL

In PBL, the students act in the key roles of the discussion leader (DL), recorder, observer, and team members. The purpose of these instructions is to explain the purpose of these roles.

A student **discussion leader (DL)** directs the discussion in the tutorial, while a **recorder** writes a memo of the whole tutorial discussion and facilitates in the analysis and systematic classification (step 4) of the results from brainstorming (step 3). An **observer** may be designated to give direct feedback to the group and individual participants at the end of the discussion. The other **team members** are active participants, while the instructor's role as the **tutor** is to facilitate the flow of discussion with guiding questions when necessary.

The **team members** contribute to the discussion by elaborating the topic. They may also ask for information and clarification. Team members must listen actively and summarize what has been discussed. They should give, ask for and receive feedback.

Learning is not a top-down process, but an equal exchange of information to construct knowledge in the team. Therefore, the tutor is a learning facilitator, supporting independent learning among the students. An expert in the subject, the tutor helps to find sources. The tutor accepts the feelings encountered when learning.

Students take turns in the roles of the DL and the recorder as agreed. A rotation that allows the recorder to be the DL in the following tutorial may be beneficial from the perspective of integration. At the beginning of each tutorial, it may be advisable to ask the previous DL and observer to briefly comment on the tutorial memo published between the tutorials.

(4.1) Discussion Leader

The DL prepares the agenda and leads the discussion, also taking care of the timing. A successful tutorial from a DL's perspective means that everyone contributes to the learning discussion in a positive atmosphere, the team reaches its learning objectives, and everyone feels good about the discussion afterwards.

> *The discussion leader*
> *Is like a heater*
> *Giving energy*
> *To group synergy*
>
> © 2008 Matti Helelä

The discussion leader plays the most important role in a PBL tutorial. The **outcome of the tutorial lies very much on the DL**, who must therefore be very well prepared as to the contents, concepts and structure of the topic. The DL should understand the highlights or main points of the topic and take care that these are included on the agenda.

The DL prepares the meeting **agenda**, encourages and facilitates the participation of the other team members, regulates the flow of communication, summarizes the essential points, paraphrases to enhance understanding, and concludes the session. The DL also makes sure that the recorder gets all the essential information and the tempo is right. The agenda covers the main points of the topic; it is much more detailed than just the list of learning objectives.

The DL keeps questioning and keeps the discussion going by encouraging the participants and by giving everyone the chance to express their views, **making everyone responsible** for their contribution. The challenging part is to **build a bridge** between people, referring to previous statements, and throwing the same ball forward. There is no discussion if people, one after another, just read their findings from paper! **The DL encourages the peers to go to the whiteboard to draw or design or write down the most essential information.**

Make the team interactive
Make everyone active
Everyone's contribution
Is our constitution

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Sometimes the discussion may be escalating to its heights and the rules and good manners may be forgotten. This is when the DL has to put the group back into order – not rudely but decisively. Raising hands is usually the best way to express the willingness to say something.

A positive atmosphere
Without fear
Is the best you can provide
As a guide

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As a discussion leader, the student learns real leadership and management skills for the future.

Agenda

The purpose of the agenda is to provide a specific structure for the discussion. The DL should then ask the tutorial team, at the beginning of the tutorial, whether the team accepts the agenda as such or whether someone would like to suggest any changes. Any team member could also ask the DL, if need be, if a certain topic would be brought up in the discussion, if the agenda doesn't clearly suggest it. A well-prepared agenda serves the team throughout the discussion, as it shows how the discussion is moving from topic to topic, even when it seems to zigzag back and forth.

The agenda shows
How the discussion flows

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Perhaps "a table of contents" would be a good phrase to describe the nature of the expected agenda, since the agenda may consist of headings and subheadings. Alternatively, the agenda may include questions, although the DL should have a larger reserve of questions in his or her notes without including them all on the agenda. The DL can use these questions to lead the closing discussion.

An agenda that includes only the usual time frame for the procedure that always takes place and the learning objectives chosen in the previous tutorial is only a reminder of previously given information.

We also welcome the use of concept maps and models on the agenda, if applicable. The agenda should always visualize the structure of the planned discussion for the whole team, whether constructed as a list or as an inspiring illustration.

In some courses, our DLs have published the agenda in our eLearning platform in advance. The benefits include the chance for other group members to suggest additions to the agenda before the tutorial. This may facilitate the DL in preparing for the tutorial. In most cases, the DL brings a copy of the agenda to the tutorial for each participant. Some DLs have written it on the whiteboard well before the tutorial begins. The document camera and projector are not recommended, since the participants may use the same devices for presenting their findings and ideas.

(4.2) Recorder

The **recorder**'s main responsibility is to take notes. The recorder also categorizes the results from brainstorming, while the other team members provide their active contribution to creating an understanding of the team's view.

The recorder is expected to prepare properly to be able to grasp the essentials of the discussion. The recorder is welcome to ask for help and clarification from the peer group as well as the tutor.

The recorder writes a tutorial memo and makes it available to all team members according to the team agreement. It is recommended to post the memo in Blackboard by the end of the next day.

> *With an open ear*
> *The recorder must hear*
> *And use his or her potential*
> *To write down the essential*
>
> © 2008 Matti Helelä

Team members are expected to read the memo after each tutorial. The memos are helpful reading material for the examination as well. The following table summarizes the expected contents of the memo. A template for the tutorial memo is given through a link in Appendix 1 (link group 2).

In our tutorials at HAAGA-HELIA, the recorder writes a tutorial memo and posts it on the eLearning platform for everyone to see. The memo should be available early enough for the team members to review the contents of the discussion when preparing for the next tutorial. The tutorial team should decide about the general deadline for posting the memo. Further, the memo is evaluated with constructive feedback at the beginning of the following tutorial. In our tutorials, it has been customary for the previous observer to give the first comments about the pluses and minuses of the memo. This way, the observer continues his or her feedback for the recorder after reading the memo. The whole team should nonetheless read the memo and be prepared to provide their comments. It enhances their learning further and helps them to write better memos.

When we tutors assess the students' tutorial performance, we take into account the recorder's memo as his or her main performance for that day.

Since our tutorials include a closing discussion and an opening discussion concerning the following learning task, the memo correspondingly includes these two parts. The recorder does not normally participate in the discussion, since he or she has to focus on making notes. Naturally the recorder should ask for clarification from the DL and the team when needed.

As you can see in our suggested tutorial schedule above, the closing discussion includes five minutes for a summary given by the recorder at the end, right before the observer's ten-minute feedback. Thus, we do hear the recorder's voice in the tutorials. Summarising the discussion is not all that easy, and it partly depends on the structure of the closing discussion and on the easiness of the topic. Some recorders might tend to repeat too many details, while others focus more on the big picture. The recorder's role is a great opportunity for the students to learn the skills related to making notes, summarising them, and writing and publishing the final memo.

A good tutorial memo reflects the contents of the discussion. Sometimes the discussion may zigzag from point to point. The recorder should nonetheless structure the memo logically according to the contents of the discussion. In other words, the structure should be based on the topics and concepts, rather than on a chronological sequence of the comments in the discussion. The concepts could be somehow visually highlighted and followed by explanations and practical examples given in the tutorial discussion. In addition, the recorder should include a simple list of the main keywords at the end of the closing discussion. On the basis of the memo contents, the recorder should select these keywords according to his or her own discretion.

> *With an open ear*
> *The recorder must hear*
> *And use his or her potential*
> *To write down the essential*
>
> © 2008 Matti Helelä

The recorder should not add content from outside the discussion, unless specifically agreed in the discussion. For example, if the team did not have time to elaborate on something that was briefly mentioned, the team may decide that the recorder add this information as an appendix to the memo. This kind of addition would nevertheless be an exception rather than a customary practice.

In our tutorials, the DL normally asks the team members what sources they have studied. Often the recorder circulates a list where the participants can write their sources. This information is then easily included in the memo.

The recorder should use headings and subheadings according to the contents of the discussion and according to recorder's own discretion. The layout should confirm to the proper document standard. Thus, writing the memo should support the studies related to word processing and document writing and vice versa. The memo should also include the illustrations shared in the tutorial discussion, and thus the recorder may practice using the drawing features of the word processing program.

In the opening discussion, the recorder or another team member should facilitate in the analysis and categorization of brainstorming. In many of our tutorials, we have designated the observer (sometimes together with the DL) for this purpose, since the recorder may want to focus on writing the memo during the analysis phase as well.

The recorder should also write down the main feedback comments from the observer, particularly the evaluation of the group dynamics rather than the personal feedback given to each team member. If agreed, the observer may send his or her own summary of the evaluation and to the recorder before the memo is published.

When the opening discussion begins and the students start to suggest alternative problem definitions, it is hard for the team to remember the suggestions after a while. Therefore, the recorder should keep record of the suggestions (it wouldn't hurt for everyone to do this). Then the DL may ask the recorder to repeat the suggestions so far. Or if the DL is not very active in this role, the recorder could take the initiative in reporting his or her notes if need be.

The recorder should draw an illustration of the brainstorming analysis and categorization to be included in the memo. Or the recorder may take a digital picture of the illustration, since many students seem to carry a phone with a camera.

Finally, the recorder writes down the learning objectives formulated by the team. Here again, the recorder should keep record of the suggestions to facilitate the final selection and formulation. It may be advisable for the recorder to write the problem and learning objectives on the whiteboard for everyone to see them clearly. If not, the recorder should read the final learning objectives out loud. This way everyone gets them in the right form and any corrections are easier to make before the tutorial is over.

The recorder should also include the keywords decided in this connection. The suggested contents of the tutorial memo are given below.

Table 2. Contents of the Tutorial Memo

Close task 1.1	
Learning objectives	Learning objectives defined in the previous tutorial and recorded at the end of the previous memo.
Discussion (use subheadings)	Well-structured description of the central learning results on the basis of the closing discussion. Theory and application. • The memo must reflect the contents of the discussion (no content from outside, unless the team authorizes the recorder to add more specific information as an appendix). • The structure should be based on the topics and concepts rather than on a chronological sequence of comments. • Concepts should be visually highlighted and followed by explanations and practical examples given in the tutorial discussion.
Keywords	Theoretical key concepts related to the topic. • The recorder selects the main keywords on the basis of the memo contents.
Sources	Sources studied by the participants.
Evaluation	Evaluation of the task and the learning results. • The main feedback comments from the observer (group dynamics rather than personal feedback).
Open task 1.2	
Discussion	Brief description of how the team approached the topic represented by the trigger.
Problem	Title of the topic or chosen perspective in the form of a question, statement or concept.
Categorization of brainstorming	Outline of the conceptual framework based on the team's current knowledge. • Drawing (or photo) of the illustration.
Learning objectives	Objectives and tasks on the basis of the chosen problem area.

(4.3) Observer

The observer observes and evaluates group dynamics and each participant's personal contribution in every tutorial. The tutor should encourage the observer to share feedback effectively. After hearing the observer's feedback at the end of the discussion, the tutor should adjust his or her own comments according to the feedback already given. Repeating the same comments may not be wise, but the tutor might emphasize certain points or add some missing perspectives or observations. The tutor should show that the students are co-owners of the assessment process through self and peer assessment.

In our tutorials, we have used the observer mainly in the closing discussion, but we sometimes assess the opening discussion in some other way. We select the discussion leaders and recorders from an alphabetical list, to make the system easy, but usually we appoint the observer at random each time, still making sure that everyone acts in this role once before anyone is chosen for the second time.

It is important that the observer remain quiet during the discussion, focusing on intensive observation and making notes. If the observer participates in the discussion, he or she easily neglects the main responsibility. It is easier to make sharp observations without participating in the discussion. The observers have told us that it is a very educating experience to learn to keep one's mouth shut even when tempted to participate in the discussion. Silence observation provides good intensive training for that. Naturally giving room to other people may still be a challenge to talkative students every time, and they should be encouraged to listen to the others and not always be the first to offer their views right after the discussion leader begins a new topic or asks a new question.

The observer's role has turned out to be a crucial empowering force in PBL. First the observer gives feedback about group dynamics, explaining, for example, how the monologues at the beginning gradually started to evolve towards a dialogue. Or how some students tended to start the discussion or otherwise dominate until the discussion leader or tutor actively involved everyone. Or how some participants referred to each other's comments, contemplating them further or even challenging them. Or how some students clearly agreed or disagreed with each other. Or how well the participants explained the reasoning behind their argumentation, making their points clear so that everyone could understand.

In short, the observer should assess the group performance from different perspectives, aiming to see the big picture. The guiding idea is how well the group fulfils their learning objectives and how the process itself succeeds from the perspective of effective, constructive, and professional teamwork. Thus, the observer pays attention to the level of discussion and the depth of the contents, making a distinction between discussion based on high-quality sources and chitchat with questionable value.

After the overall group assessment, the observer should move on to individual feedback, starting from the discussion leader and covering every member. The feedback should focus on pluses and minuses, always challenging everyone to perform better, still making it clear that there is room for mistakes and the tutorial is a safe place to make them, as long as everyone tries their best. The attitude towards collaborative learning is what counts.

> *Whatever it takes*
> *Make space for mistakes*
> *Not to spoil creativity*
> *As the basis for activity*
>
> *© 2008 Matti Helelä*

The observer evaluates the discussion leader's performance from the perspective of involving and activating all participants, building bridges, and maintaining a successful professional discussion. The observer also pays attention to the agenda and the DL's questions.

The observer should pay attention to how well the participants have prepared for the tutorial (including their notes) and how effectively they refer to and discuss with their sources (using the author's name) and, in the best case and especially at advanced levels of study, how well they compare or even challenge their sources. This way all students gradually learn to refer to evidence and they begin to understand the value and purpose of source references. Further, the observer should notice the use of theoretical concepts and their application to the practical context (based on the trigger or other relevant context) through the participants' own examples. The observer's comments may cover how well the members listen to each other, even how they use their voice and body language. Mutual respect and group support are also commented, and anything related to professional behaviour and team values. The guiding principle in our tutorial performance feedback and assessment is this: We evaluate and assess what we consider valuable.

According to our experience, some observers have been very good at giving feedback about the overall group performance, while others have focused a great deal on giving individual feedback. The topics in group and individual feedback are partly quite similar, but the perspectives are different: group level and individual level. Both feedback sections are very important, since group feedback helps the participants to understand how the team works effectively together, and individual feedback both strengthens each student's self-confidence and helps to improve the weak areas.

*The observer pays attention
To the level of preparation
The level of contribution
And its distribution*

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Thanks to our feedback system, the students learn to give and receive constructive criticism and use it to improve their performance. They also gain self-confidence, which is decisive in their personal and professional growth. This way we really help our students to have better work opportunities in the future.

In most of our tutorials, we haven't had any observer's feedback at the end of the opening discussion. Having an observer for the opening discussion could be very useful, and the students should be able to receive some feedback about the opening discussion. On the other hand, using other ways to assess the opening tutorial may be a good idea. For example, at the end of the opening tutorial, the tutor or the discussion leader could ask the participants to take a standing position on an imaginary line going from wall to wall on the classroom floor. One side is "cold" and the other side is "hot". The students could then indicate how hot or cold they are, depending on how effective and useful the opening discussion was from their personal perspective and how intensively they set their mind to it. This has turned out to be a good way for the students to give their personal perspective and for everyone to see how the others view the opening discussion. Using different ways to assess the opening discussion are also a tool to boost creativity and a positive attitude towards self and group assessment.

The **observer**'s responsibility is to pay attention to the discussion in general, the DL and the participants. The following checklists may help you to focus on the essential.

Checklist 1

Discussion in general	**DL**	**Participants**
• Level of discussion • Depth of the content • Quality of the sources used	• Preparedness • Ability to involve the participants • Building bridges between comments when needed • Leadership skills	• Preparedness • Pluses • Minuses: what to improve

Checklist 2

1   Structure of the tutorial
How well did the tutorial proceed according to the agenda? How well did the agenda serve its purpose from the perspective of our learning objectives?

2   Preparation
How well was everyone prepared for the discussion?

3   Equal participation
How well could everyone contribute to knowledge construction? Did some people tend to start the discussion, giving the others the follower's role? Did anyone dominate the discussion? Did some people remain in the background?

4   Listening and referring to one another's ideas
How well did everyone listen to the discussion? How well did they engage with each other's ideas? Did people evaluate each other's ideas and even challenge them, or did everyone tend to agree with the "opinion leaders"?

5	**Explaining and understanding**

5　　　　**Explaining and understanding**
Did people explain the reasoning behind their argumentation? Did people have problems in formulating their expressions so that everyone could understand? What could have been done to avoid unclarity in these cases?

6　　　　**Application of theory**
How effectively did the team apply theory to practice in the closing discussion?

7　　　　**Summarizing to see the big picture**
Did the team sum up any parts of the discussion so that everyone could remember what has been said and understand how the discussion should proceed?

8　　　　**Using prior knowledge in the opening discussion**
How effectively did the team use their prior knowledge in idea generation and categorization?

9　　　　**Feedback**
Quantity and quality of the feedback?

10　　　　**Other important observations**

When answering the above questions, refer to **evidence how all this showed in our tutorial**.

(5) PARTICIPATION POLICIES

Participation in tutorials is compulsory. If you are sick or have another very compelling reason to be absent, we allow one absence providing that you write an "absence memo" for each time and post it on the Discussion Board in Blackboard within two weeks from the missed tutorial. A second absence causes a risk of failing the course and having to re-sit all tutorials in the next semester – we will judge each such case individually, considering the student's learning achievements and circumstances. Therefore, do not be absent for a small reason because you may be sick at the end of the course and need the one "unused absence."

If you are absent and neglect writing the absence memos, your grade for the missed tutorial is zero. An acceptable absence memo written on time erases the zero and that particular tutorial is not calculated for the final grade. We do not give grades on absence memos.

The absence memo is like a personal tutorial memo regarding the closing discussion. It does not have to include any opening discussion. In each absence memo you should:
(1) Write personal reflections on the learning objectives regarding the closed task. Use theoretical key concepts and models and apply them to a practical context.
(2) List the keywords in the end.
(3) Indicate the sources you have studied, using in-text references and writing a list of sources at the end.

You are also expected to arrive on time before the tutorial begins. This means that you are sitting at the table with your notes on the desk, instead of rushing through the door and creating a scene at the last minute. Traffic is no excuse; you can always take an earlier bus. It is particularly important for the discussion leader to be ready with the agenda (possibly on the whiteboard) early enough before the tutorial begins as scheduled. Coming late affects the tutorial grade.

Please remember that coming late not only to tutorials but also to lectures and group meetings is extremely disturbing, reflecting lack of respect towards those present on time. We expect you to adopt the program values and contribute to a high-standard working morale. Ask yourself: Do I want to be known as a reliable team member among the learning community?

(6) Assessment

Assessment includes self, peer and external assessment. The student's growth as a learner is considered in assessment. The assessment of the student's learning is based on the following principles: Theorization, generalization, hypothesizing and reflection represent the highest level of learning. A high level is also achieved by comparing and contrasting, explaining causes, analyzing, relating and applying, while enumerating, describing, listing and combining represent a fairly good level. A poor ability to use theoretical concepts and to apply them to practice is less satisfactory.

Tutorial performance is evaluated on a scale of 0 to 5 (0 = failed, 1 – 5 = accepted), using the grades 1–, 1, 1+, 1½, 2– 2, 2+, 2½, 3–, 3, 3+, 3½, 4–, 4, 4+, 4½, 5– and 5.

Usually tutorial performance is weighted heavily in the overall assessment of the course. The PBL program in international business emphasizes the importance of the skills and knowledge that the students demonstrate in tutorials, and therefore this process deserves such a high percentage in the calculation of the overall grade.

The following assessment tools (Appendix 1, link group 3) have been designed for PBL tutorial performance:
- Self-assessment for tutorial performance
- Rubrics (guidelines) for self-assessment for tutorial performance

Each student must fill a **self-assessment** form according to the course schedule. On this form, the students are expected to assess their learning both qualitatively and quantitatively, on a scale of 0 to 5. They must attach a concept map of the major concepts of the theme(s) to each self-assessment form.

The purpose of this self-assessment tool is to reflect the student's learning process and facilitate communication between the student and the tutor. Self-assessment helps the students to improve their metacognitive skills and expertise. The students may also use the form to prepare for the tutorials.

The contents of the self-assessment form are as follows:

1. Level of motivation and preparedness.
   - Motivation to learn about the theme.
   - Exploring the sources during personal study.
2. Contribution to team knowledge construction in the tutorials.
3. Understanding the discussion and applying theory to the learning tasks and/or the project tasks.
4. Critical-thinking skills (idea generation, questioning, argumentation, categorization, problem-solving and other reasoning skills).
5. Professional behavior (respect towards peers and the team agreement, punctuality and other relevant matters).
6. Giving and receiving feedback among peers and learning from it.

If agreed, the tutor gives feedback to the student on a similar form, either by writing comments on the student's self-assessment or by using a blank form for the same purpose. The tutor does not give a grade for tutorials before the student's self-assessment.

Each of the items listed above are defined in detail in the rubrics. The purpose of the rubrics is to help the students to assess their own tutorial performance on a scale of 0 to 5. On the self-assessment sheet, students should use their own words to reflect their learning process more accurately.

(7) CONCLUSION

After studying this PBL Guide, you should have an understanding of PBL work. Your feedback and suggestions to enhance this guide are warmly welcome to the writers.

PBL is an effective learning approach when implemented by a team of tutors who constantly seek to find better ways to answer to the changing demands in the workplace. We need new triggers from companies and other organizations and partners, since PBL is built around the problems and practices that occur in the profession to be studied. Problem-based learning seeks to enhance the professional identity and learning among the learners and make their transition from school to work as smooth as possible. PBL is also an excellent learning approach for corporate training purposes.

Successful enhancement and implementation of PBL courses calls for networking among teachers and trainers, researchers, educational and research institutions, companies and organizations, employers and employees, students, and, in general, people interested in learning. Cooperation is one of the success factors and key values of problem-based learning.

APPENDIX 1: LINKS TO TUTORIAL DOCUMENTS

The following table includes links to various tutorial documents. The links are also accessible through the eLearning platform (bb.haaga-helia.fi).

Table 3. Links to Tutorial Documents

	Link Group	Available at
1	Tutorial Timetable	myy.haaga-helia.fi/~liibba/assessment/tutorialtimetable-3h-815.doc
		myy.haaga-helia.fi/~liibba/assessment/tutorialtimetable-3h-830.doc
		myy.haaga-helia.fi/~liibba/assessment/tutorialtimetable-3h-900.doc
		myy.haaga-helia.fi/~liibba/assessment/tutorialtimetable-3h-915.doc
		myy.haaga-helia.fi/~liibba/assessment/tutorialtimetable-3h-1000.doc
		myy.haaga-helia.fi/~liibba/assessment/tutorialtimetable-3h-1100.doc
		myy.haaga-helia.fi/~liibba/assessment/tutorialtimetable-3h-1300.doc
		myy.haaga-helia.fi/~liibba/assessment/tutorialtimetable-3h-1315.doc
		myy.haaga-helia.fi/~liibba/assessment/tutorialtimetable-3h-1400.doc
2	Tutorial Memo Template	myy.haaga-helia.fi/~liibba/ori/memotemplate.doc
3	Assessment Tools	myy.haaga-helia.fi/~liibba/assessment/pblselfassessment