

Unit 5: Roles in PBL



Introduction

This unit will identify the different roles learners can have in problem based learning.

As mentioned previously PBL is a collaborative process involving a group of learners working together. In PBL each person has a role which develops a different set of skills. As a result each person should undertake a different role each time they engage in a new PBL problem You as a trainer will be the facilitator of the PBL process. Either you will allocate a role to each person or ask the group to decide amongst themselves who takes responsibility for each role. Sometimes it is better to delegate roles so people have time to prepare before the first meeting (also it provides an additional benefit time is not taken up in the initial stages of the opening meeting)

By giving each person responsibility and making clear what is expected of them it allows the learners to be more confident and enhances their ability to be more self directed.

This unit explains each role in the PBL process and what is required from the learner in that role

Lesson 1: Facilitator

Lesson 2: Discussion leader

Lesson 3: Recorder

Lesson 4: Observer

Lesson 5: Group member

Lesson 6: Supporting collaboration and assignment

Much of the content is taken from the text 'Tracing the role of the tutor'

Supplementary reading
Tracing the role of the tutor

Lesson 1: The role of the facilitator

The role of the facilitator is to act as an advisor throughout the PBL process, they are present, but not participative and step in only when needed or requested to by the team members. As the process progresses and the learners become more self directed the facilitator can withdraw from attending meetings (only attending occasionally)

The facilitator must support learners, ensure the student goes through each stage of the PBL process, motivate students and resolve conflicts that the group cannot deal with. Below is an overview of the tasks of the facilitator:

- Understand the PBL process (unit 4)

- Together with the team members identify and present a suitable problem (unit 3)
- Be familiar with the problem
- Be realistic about what the PBL team can achieve in a given time period
- Understand the big picture behind the problem
- Attend the opening meeting (and as many other meetings as is possible)
- Be enthusiastic and interested in students and their learning
- Motivate the students
- Provide positive and constructive feedback
- Ask questions and encourage reflection and articulation of mental models (unit 2)
- Assist in the creation of a positive atmosphere
- Be aware of group dynamics and strong and shy personalities and where there may be conflict.
- Have an open door policy

Lesson 2: Discussion leader

The discussion leader is also known as the chair. They are effectively responsible for driving the PBL process from a student perspective. By taking the responsibility of the discussion leader the learner builds management and leadership skills.

In the opening and closing stages the discussion leader is mainly responsible for running PBL meetings. Prior to and during these meetings the discussion leader must:

- **Prepare an agenda** for the interim and final meetings (at the initial meeting the problem is discussion leader is appointed). The agenda must have a structure for the discussion. The team should be consulted at the start of the meeting if they accept the agenda or have changes. A table of contents is the analogy used to describe the nature of the agenda. Helela and Fagerholm (2008) also suggest questioning as an alternative agenda to stimulate discussion and the use of concept maps if required. The objective of the agenda is to encourage exploration and creativity and so should be structured in a manner to enable this. The agenda may be circulated prior to the meeting.
- **Discuss the tutorial memo** (outlined in the next lesson) at the beginning of the meeting for interim and closing meetings
- **Ensure meetings run in a positive manner** that minimises conflict and there is a 'can do' attitude where everyone feels confident about themselves and what they are doing
- **Ensure all participants participate equally** enticing shy participants and curbing those who dominate in a polite manner. Ensure that those speaking are not interrupted but if a person is speaking for too long politely ask them to say it briefly. A round robin technique may be good for encouraging shy participants where each person is requested to give their input into the discussion
- **Ensure that all PBL steps are completed** adequately enough to address the problem and the discussion does not deviate from the task at hand
- **Encourage mutual support** – encourage team members to be respectful of each other, curb impolite behaviour and the equal sharing of tasks.
- **Ensure that low priority tasks do not dominate**
- **Summarise each item on the agenda** before moving on and summarise the discussion at the end
- **Delegate clear objectives** fairly to each team member
- **Questioning and probing team members** thinking to encourage mental models – for example if a team members mentions that the problem might be the result of a particular element asking them “how/why do you think this element impacts on the problem?”

- **Bridge concepts that might be related** – for example “I think John said something similar earlier and the issue you outline may be as a result of the issue John discussed”

Supporting the Discussion Leader (DL)

- Inform them of what your expectations are of them (give them the above list of tasks)
- Build confidence and encourage the person. Make the DL feel good about themselves. If they are confident they will perform their leadership role better
- Brief them on how to deal with shy and dominant personalities in meetings by using techniques such as round robin (where each person is required to contribute to the discussion)

Lesson 3:Recorder

The recorder also known as the scribe keeps the minutes of the meeting (known as a tutorial memo) and circulates it for everyone to review. In the role of the recorder the team member develops written communication and analytical skills

At the meeting the team should decide the date the memo should be posted by. This should be early enough to allow team members time to review the memo prior to the next meeting.

At the start of interim and closing meetings the team discuss and give feedback about the memo (no more than 5 minutes should be allocated to this)

“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

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" (Helela and Fagerholm, 2008)

During the meeting the recorder can ask for clarification on discussion items that need more detail in order for the recorder to produce their memo.

Below is a list of items an tutorial memo could contain for opening, interim and closing meetings

Opening meetings (Helela and Fagerholm 2008): Tutorial memo

- Discussion: Description of how the team approach the topic identified in the trigger.
- Problem: The title of the problem in the form of a question, statement or concept.
- Categorisation of brainstorming: Outline the concepts the teams spoke about in the brainstorming session under the classified headings. (illustrations can be used here)
- Learning objectives: The agreed objectives, tasks on the basis of the chosen approach(es) to address the problem. How these learning objectives were allocated to team members
- Observer feedback: The personal feedback the observer gave to each team member

- Keywords: Of the main topics covered in the PBL meeting.

Interim meetings: Tutorial memo

- Discussion of results of the tutorial memo from the previous meeting
- Discussion of concepts (any of those not discussed in the opening meeting)
- Observer feedback: The personal feedback the observer gave to each member
- Keywords: Of the main topics covered in the PBL meeting.

Closing meetings (Helela and Fagerholm 2008): Tutorial memo

- Discussion summary of tutorial memo from previous meeting
- Learning objectives: identification of the learning objectives identified in the previous session and how they were achieved
- Discussion: well structured discussion of the learning results (including theory and application)
- Source: Self study sources studied by participants
- Evaluation of the tasks and the learning results – was it effective, why/why not? What could have been done differently
- Observer feedback – based on group dynamics
- Keywords – selected based on the main topics discussed in the session

Tutor support for the recorder

- Inform the recorder of the contents of the memo for the various meetings (above list)
- Encourage the recorder to look at examples of tutorial memos
- Brief the recorder on the importance of being prepared
 - Having the correct material (pen and paper and/or video/audio recording if required)
 - Reading the agenda prior to the meeting
 - Knowing who everyone is in the meeting so the recorder can refer to them correctly in the memo
- Brief the recorder on the importance of listening and not recording verbiage but summarising the most important parts of the meeting. Encourage the learner to differentiate between facts and opinions and only record the facts.
- Brief the recorder of the importance of summarising notes at the end of the meeting to ensure that they have the correct information.

Lesson 4:Observer

The observer is an extremely important role in the PBL process. PBL develops an all rounded learner with professional, interpersonal and technical skills. The role of the observer is to act as an outsider examining how the group interacts and how each personal participates in the meeting. The team member in this role develops skills in listening, giving feedback and using constructive criticism to improve performance. This role also impacts on the performance of other team members and can assist in developing self confidence and taking criticism in a constructive manner.

The observers role is limited to meetings (thus the opening and closing stages) they do not observe the team members self study unless this is discussed in meetings

The observer must not participate in the discussion. According to Helela and Fagerholm, 2008

students feel that 'learning to keeping your mouth shut is an educating experience'.

Things the observer might evaluate are in the table below (Helela and Fagherholm, 2008)

Item	Explanation
Discussion in general	Level, depth and quality of discussion
Discussion leader	<ul style="list-style-type: none"> • Preparedness • Ability to involve participants • Building bridges between comments when needed • Leadership skills
Participants	<ul style="list-style-type: none"> • Preparedness • Pluses (things they did well) • Minuses (what to improve)
OR	
Structure of Tutorial	<ul style="list-style-type: none"> • How well did the meeting align with agenda • Did the agenda serve its purpose and achieve the learning objectives
Preparation	<ul style="list-style-type: none"> • Was everyone prepared?
Equal participation	<ul style="list-style-type: none"> • How well did everyone contribute to the construction of knowledge • Did anyone dominate the conversation • Did some people remain in the background • Who initiated the conversation?
Listening and referring to one another's ideas	<ul style="list-style-type: none"> • How well did everyone listen to the discussion • How well did each person engage with others' ideas • Did people evaluate each other's ideas or challenge them (it is a good idea/i do not agree with that)
Explaining and understanding	<ul style="list-style-type: none"> • Did people explain the reasoning behind their decisions or arguments • Did people have problems explaining their opinions so others could understand • In the above case what could have been done to improve clarity
Application of theory	<ul style="list-style-type: none"> • How effectively did the team apply theory to practice
Summarising to see the big picture	<ul style="list-style-type: none"> • Did anyone in the team summarise any parts of the discussion so that all could remember what was said and how the discussion should proceed

Using prior knowledge	<ul style="list-style-type: none"> • How effectively did the team use their prior knowledge in brainstorming and classification
Feedback	<ul style="list-style-type: none"> • Quantity and Quality of feedback
Support	<ul style="list-style-type: none"> • How well dthe students supported each other and in particular supported students experiencing difficulty
Other	<ul style="list-style-type: none"> • Any other observations you made that might provide valuble constructive feedback for the team
Note: it is important that the observer refers to evidence of how the team member did/did not demonstrate these characteristics	

In the opening and closing meetings

The observer should use the above checklist to evaluate the group and individual team participants making a note of evidence of how the participants demonstrated these items.

The final ten minutes of the meeting should be dedicated to the observer giving feedback. The observer should explain how well the group fulfilled their learning objectives overall in the context of the agenda and how the process (PBL meeting) succeeded from a perspective of effective, constructive and professional team work

After overall group assessment, the observer gives each individual performance feedback. This should be done in a polite constructive manner, starting with what the individual performed well and finishing with what could be improved. It should not be negative and by taking the stance of 'what can be improved' over 'what the individual is not good at' reduces negativity. Comments should not be personal but focused on tasks e.g. rather than saying that the individual is shy state that they could increase/improve how they participate/contribute to the meeting.

It is important for the observer to also evaluate what they see as valuable to the PBL process. An example considered by Helela and Fagerholm (2008) is that “in one tutorial the observer gave thanks to the team for supporting a student who had difficulty expressing ideas as he had started his studies a week late. The group supported him through the meeting by increasing his active participation.”

In the last couple of minutes the team is given an opportunity to provide feedback to the observer for example if the feedback they gave was constructive, given in a sensitive manner, given in a non critical manner.

It must be explained to team members that this is not an opportunity to defend themselves or 'get their own back'. Observer feedback is his/her opinion and the students are not on trial. The feedback is aimed at being constructive and developing skills.

Tutor support for the observer

- Outline the check list to the observer emphasise the importance of making notes that produce evidence that the items have been demonstrated (or not been demonstrated)
- Highlight the importance of listening and observing not participating
- Should emphasise that the learner does not need to be perfect and can make mistakes as it is

- a new learning process which everyone needs to get comfortable with.
- Emphasise the importance of providing constructive feedback in a positive manner focused on tasks rather than being personal.
- Attend the initial meeting and provide feedback to the observer of items they might have missed

Lesson 5: Group member

The group member participates completely in the PBL process, taking responsibility for their part. Below is a list of tasks for the team member

Meetings in the opening and closing stages

- Attend meetings. If the learner is going to be absent they need to provide the discussion leader with an absence memo in which they articulate their contribution to the meeting. For an opening meeting this would include list of terms they do not understand, their perspective of the problem definition and their proposed solutions. For a closing discussion it may include sources they studied, their solution and a reflection on their approach.
- Prepare for the meeting. For the opening meeting read the trigger and agenda prior to the meeting. For interim and closing meetings read the tutorial memo.
- Focus on the agenda items and achieving a result from the meeting which targets at solving the problem identified in the trigger
- Contribute to the discussion within meeting, by generating ideas. It is important that the group member does not dominate conversation, keep to the point and do not interrupt others.
- Support and listen to team members
- Respect the team members and give and receive feedback in a polite constructive manner.
- When the learner does not agree with other team members they should explain why in a calm polite manner.
- Explain the rationale behind your decisions and arguments

Self study stage

- Be clear about their learning objectives they have to achieve
- Record their proposed approach of how they will complete the self study stage
- Search for or gather the relevant information
- Use the gathered information to achieve the learning objectives
- Applying theory
- Where required liaise with other team members (if your learning objectives interface with others)
- Reflect on the effectiveness of their self study approaches

Tutor support for the team member

- Provide personal feedback where possible
- Again provide feedback in a positive polite manner
- Build confidence and support as required. If learners are not delivering give them a chance to explain and listen (see unit 2)

Lesson 6: Encouraging collaboration between roles

There are two reasons why group collaboration fails. This can be due to people issues and/or process issues (Neville et al, YEAR)

People issues can as a result of behaviour which may be impacted by past experiences, personal agendas or lack of motivation.

People issues: behaviour

In collaborative learning when there is an issue with an individual it is important to emphasise that it may be their behaviour you have a problem with not the person. The reason why their behaviour is so is maybe because the meeting isn't meeting their needs, they might not be able to see the relevance of the meeting or they feel their opinion will not be considered..

Video material
Conflict and collaboration

Behaviours which are undesirable are dominance and lack of participation. To understand the behaviour you need to identify what is happening and why it is happening (what is causing this behaviour)

Dominant behaviour:

What is happening	Why it is occurring:	Advice
<ul style="list-style-type: none"> - One or two monopolising the conversation - One person disagree with all ideas other than their own - One person trivialising other peoples contributions. 	<ul style="list-style-type: none"> - The person is in a more senior role and feel they have more to offer. - They may be the most informed and so feel that they know the most about the problem. - Or they may not be aware of what they are doing. 	<p>Thank him/her for his contribution and ask what other people think.</p> <p>Inform everyone of the main aspects at the start of the meeting</p> <p>Trivialise other peoples ideas: State it is important to get a number of perspectives to reach an optimum solution</p>

Lack of participation

What is happening	Why it is occurring:	Advice
<p>People do not contribute or speak.</p>	<ul style="list-style-type: none"> - They feel that there is a deficit of knowledge and are not confident at speaking - They have had a bad experience with the group - They do not see the relevance, the feel their opinion will not be heard or valued 	<ul style="list-style-type: none"> - Highlight at the start of the meeting the reason why the there are several team members and the importance of their contribution. - Identify ground rules for running meetings e.g. listening to each other and respecting opinions - In the meeting proactively

	asking people for their response, doing round robin
--	---

Process issues

Process issues are concerned with the procedure for running the group.

- The group are not aware of the purpose of the meeting and why they are at the meeting. There are no ground rules about running the meeting e.g. how often meetings should take place, is attendance compulsory and how the group are expected to prepare.
- There is no agenda prepared with no time allocated for each item which results in the meeting running without guidance and purpose.
- There is no chair/discussion leader
- At the end of the meeting no decision has been reached and no tasks have been delegated or tasks have been delegated unfairly

By providing the group with structure and a process they know what is expected of them.

Conflict problems

Conflict is one of the main issues in collaboration. People perceive disagreements and contrasting opinions differently. Some perceive them as a threat (and so conflict arises) and others as a possibility or shared learning. It is important to address conflict you emphasise the positive side. Conflict is important and it must be addressed in an open manner rather than avoiding the issue at hand. Often people feel that disagreement and conflict is negative however it is good for people to disagree as it shows different perspectives to a problem and alternative solutions. Conflict is only an issue if it is negative or personal or the discussion is unproductive. If the discussion is dominating on one particular issue the group cannot agree on it is important to encourage the group to move on and revisit it at a later time or suggest alternative solutions. There are a number of reasons why conflict might occur (taken from Neville et al YEAR)

http://archive.learnhigher.ac.uk/resources/files/Group%20work/groupwork_booklet_200109.pdf

Problem	Advice
Someone gets upset if his or her ideas are challenged or rejected.	This problem usually arises because of the way an idea gets challenged in the group. The person who put forward the idea may feel personally rejected or insulted if their suggestions are scorned or insensitively rejected. If someone puts forward an idea, and others don't accept it, the objectors need to make clear that it is the idea that they want to challenge, and not the intelligence or integrity of the person proposing the idea.
Problems from outside being brought into the group.	If group members are experiencing problems outside the group, they may find it difficult to ignore these. Worries from the outside can cause group members to be angry or aggressive to others without too much obvious provocation. It can be helpful if group meetings started with members saying what has happened to them generally since the last meeting. This may bring worrying issues up to the surface. The group may also want to build in a ground rule about not accepting abusive or aggressive behaviour.
Sexist, racist or other stereotyping or abusive remarks	These should not be allowed, accepted or tolerated in the group, and there should be a ground rule to this effect. It should not be

	<p>left to the chairperson to have to challenge these remarks, because all members have a moral responsibility to intervene.</p>
<p>Not listening to others in the group.</p>	<p>It can take a lot of courage and encouragement before some members voice their opinions in a group. If these opinions are not listened to, the speaker may retreat emotionally from further group discussion.</p> <p>The group may wish to include a ground rule about the importance of listening to others and paying attention when others are talking. Group members should find ways of encouraging quiet members to contribute to the discussion, and the chairperson's role in ensuring everyone has a fair chance to speak is vital.</p>
<p>Someone allocated a group task does not complete it in a way that satisfies other group members, e.g. some information is missing.</p>	<p>This is a problem best avoided in the first place by the group discussing who does what at an early stage of group formation, and what results are expected by the group .</p> <p>Individual group tasks should be:</p> <p>(a) identified;</p> <p>(b) delegated; and</p> <p>(c) the expected outcome clarified.</p> <p>If all group members have entered into a contract on expectations, the group is then justified in asking the group member concerned to complete his or her part of the contract in the way previously agreed.</p> <p>It is always worth checking if the group member is encountering difficulties that s/he hasn't made known to other members of the team. In extreme and irresolvable cases, however, group members may wish to discuss this with the module leader, particularly if marks or grades are involved.</p>
<p>The leader or chairperson of the group is proving to be unsuitable and unacceptable to the majority of the group. S/he may, for example, be too directive, dogmatic or aggressive; or be contrast, indecisive and ineffective.</p>	<p>It is unusual in any group for the leader or chairperson to be completely isolated and without some partial support from one or two group members. If there is consensus among group members about the problem, it is best approached via those individuals who are most likely to be listened to by the leader.</p> <p>The leader should be given a chance to discuss the issues with all group members and make changes if necessary. Sometimes the leader simply does not understand that negative impact of his or her leadership style on others.</p> <p>Real problems can occur if the group divides into factions because of leadership related issues. Often in this situation the real problems are not aired and discussed and a general mood of disagreement, hostility and non- cooperation prevails. The answer is to discuss the problem, not matter how painful, awkward or difficult it is for the group. As stated earlier, a "storm" is necessary to clear the air.</p> <p>In extreme cases, the facilitator will help by allowing individuals, including the discussion leader, to have their say and to make a fresh start.</p>
<p>The group has discussed a subject honestly and democratically, but no consensus has been reached</p>	<p>Firstly it is important to summarise the important points of the discussion for each item on the agenda before moving to the next. If the group do not agree:</p> <ul style="list-style-type: none"> • Asking those who disagree to suggest alternative proposals • Asking individuals to compromise or trade off • Voting techniques (democracy) where members vote

	for their preferred option.
--	-----------------------------

Assignment

For this assignment you must organise your first meeting for the problem you identified in Unit 3

- Assemble your PBL learner group
- Delegate the roles
- Circulate the trigger
- Inform each role what is required of them
- Identify potential problematic behaviours and brief the discussion leader on how to address them.
- Circulate some rules for running the PBL meetings.