



## Qualities of PBL Leader: The Students' Perspective

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### ABSTRACT

**Introduction:** Problem based learning is an educational strategy in which students work together in a collaborative way to solve a given problem/scenario that they are expected to experience in their real life setting. Students' work in a group of 12-13. The group members' work under the leadership of the group leader.

**Aims & Objectives:** This study aims to investigate the perceptions of students' regarding the qualities of PBL group leaders.

**Place and duration of study:** The study was conducted in the University College of Medicine and Dentistry. Total 30 2<sup>nd</sup> Year MBBS students were included in the study.

**Material & Methods:** This was a qualitative descriptive exploratory study. Three focus group discussion sessions were conducted. The sessions were tape-recorded and were then converted into written document. The data was analyzed by using Atlas ti; a qualitative data analysis tool and themes were generated.

**Results:** Initially the entire document was read and line to line coding was done which resulted in 300 codes, a second cycle of coding resulted in 95 codes, which were reduced to 78 codes after the third cycle. Finally, 17 codes were formed which were pertinent to the research objective and 5 themes with various sub-themes.

**Conclusion:** PBL promotes collaborative learning under the group leader. This current study provides a guideline to students and medical colleges regarding the qualities of PBL group leaders and will also help in inculcating these qualities.

**Keywords:** Problem based learning, leadership, students' perspective.

### INTRODUCTION

Problem Based Learning (PBL) is an active learning approach, which had been developed in medical education in the late 1960s to address the practical concern that the traditional approach was inadequate in preparing students to solve complex problems and transfer classroom learning to real world situations<sup>1</sup>.

Students in PBL programs have the following attributes when compared to students in traditional programs. They retain knowledge for a longer period, exhibit leadership skills, value the learning process as an enjoyable experience and make them lifelong learners<sup>2</sup>.

The students within the PBL group take role of a group leader or chairperson, the scribe and group members. PBL is a small group teaching method that combines the acquisition of knowledge with the development of generic skills and attitudes.

The leader within a PBL group maintains the group decorum, encourages every group member to

participate equally in the group discussion and begins and concludes the session<sup>3</sup>.

The qualities of PBL group leaders have not been studied yet. This research intends to determine the students' perception regarding the quality of PBL group leaders.

At University College of Medicine and Dentistry we have implemented integrated curriculum. Problem based learning sessions are also included in this curriculum and are conducted on weekly basis. Students are divided into 12 groups of 13 students each thus involving the entire class strength. Every week a different student in the group gets a chance to become the group leader.

The objective of the study is to explore the perceptions of students' regarding the qualities of PBL group leaders.

### MATERIAL AND METHODS

The study was a qualitative descriptive exploratory conducted at The University College of Medicine and Dentistry vide UCMD ethical clearance number ERB#C/6/5/17. Target population included 2<sup>nd</sup> year MBBS students enrolled in the

integrated curriculum. Focus group discussion (FGD) was the methodology that was used to collect the students' perception regarding the qualities of PBL group leaders. A questioning route based on Krueger & Casey (A 2009), as mentioned in AMEEGuide#91, consisting of a list of pertinent questions was prepared. These questions gave students the liberty to speak and discuss openly within the focus group and also kept them on track. After initial formulation of questions, they were sent to 6 well-known medical educationists. All of them had vast experience in the field of medical education and research. All of them replied with positive feedback and suggested minor changes and additions to the questions. Initially six questions were phrased and after considering experts opinion 8 questions were finalized for the study and focus group discussion sessions were conducted.

After the sessions the recordings were converted in to written document and sent to the members from FGD for member checking and the feedback provided by the members was incorporated. This whole process when completed, gave the data in the form of written documents, which were basically a collection of thoughts, ideas and desires of medical students about qualities of PBL group leader.

Data was analyzed by the researcher herself, using Atlas ti, which is a qualitative data analysis tool and thematic analysis was done. The entire process of data analysis is described below:

- The recordings were converted into written documents and transcripts were sent for confirmation; changes as suggested by the participants were incorporated.
- The confirmed transcripts were organized according to the attribute codes given to the participants to maintain anonymity.
- Transcripts were typed on the computer.
- Transcripts were uploaded on Atlas ti.
- The whole data was examined thoroughly. Individual transcripts were read line by line and were labeled with the codes.

First cycle of coding was done which yielded 300 codes, followed by a second cycle of coding in which the long list of codes was narrowed down to 95 codes, these codes were further narrowed down to 77. After this the codes pertinent to the research objective were identified and categorization was done by combining codes, this resulted in 17 codes. Finally, 5 themes along with their respective sub-themes were derived from the data.

## RESULTS

Narrative analysis of the data collected from the students in the focusgroup discussions were done. The analysis of the data yielded 5 major themes along with their respective sub-themes (conscientiousness, affiliative, emotionally intelligent, determined and intellectual intelligence). Fig-1.

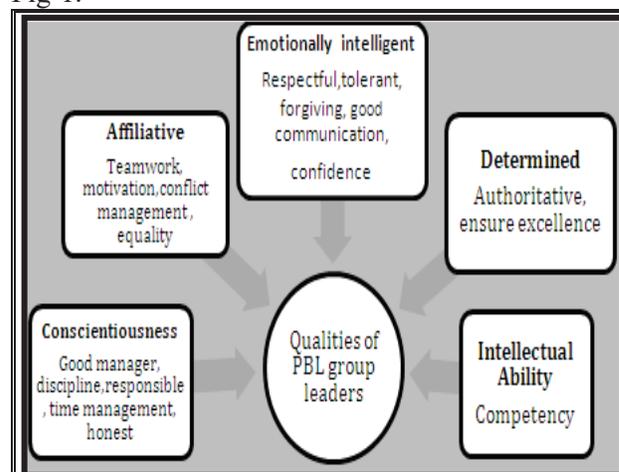


Fig-1: 5-major themes derived from the data (conscientiousness, affiliative, emotionally intelligent, determined and intellectual intelligence).

The themes described the students' viewpoints regarding the qualities of PBL group leaders. Seventeen codes pertinent to the research objective were formed when the data was analyzed using Atlas ti software, which were reduced to 5 main themes including several subthemes afterwards.

**Conscientiousness:** All the students were of the viewpoint that the PBL group leader should be conscientious. Most of the members reported that the leader should be responsible for their actions; they said that it's a leaders duty to ensure that all the learning objectives are covered within the stipulated time. They also said that the leader should maintain discipline during the session and should ensure that the discussion is interactive. Sub-themes under the major themes are shown in the Table-1 below.

**Affiliative:** Students said that the leader should ensure a friendly and harmonious environment. They mentioned that the leader should ensure teamwork, so that everyone gets an equal chance to participate and should exhibit an unbiased approach towards the group members. Leader should be able to resolve any bad feelings that develop among the group members during work and should promote harmony among the group members; Moreover, they said that the leader should motivate students and should appreciate those who perform well. Sub-

themes under the major themes are shown in the Table-2 below.

Sub-Theme	Description	Representative Quotation
<b>Responsible</b>	Leader should conduct the session responsibly	The leader should make sure that all learning objectives are covered and students have understood as well; if required the leader should repeat the learning objectives.
<b>Good manager</b>	A leader should be a good manager in order to conduct the session	A leader should know how to conduct and manage the session. He should ensure proper time management. He should summarize the session and should make sure that irrelevant chatter during the session is avoided and the discussion is interactive.
<b>Time Management</b>	Leader should ensure proper time management, so that all the tasks are covered in the stipulated time.	Leader should maintain proper time management, so that every group members gets an equal chance to participate in the discussion.
<b>Honest</b>	Leader should be honest.	Leader should be honest and he shouldn't leave even a single learning objective.
<b>Disciplined Session</b>	Group leader should maintain the discipline while discussion.	My favorite PBL session was the one, which was well disciplined, no one dominated the discussion and everyone got an equal chance to participate.

**Table-1: Summary of the main theme of conscientiousness and sub-themes that emerged from the analysis of focus group discussion along with representative quotation from transcript.**

Sub-Theme	Description	Representative Quotation
<b>Teamwork</b>	Leader should ensure teamwork	Leader is the uniting force; he should take everyone together and should ensure teamwork.
<b>Equality</b>	Leader should avoid biased behavior and should treat everyone with equality.	Leader should have an unbiased approach, if he shows favoritism towards his friends than he cannot be a leader; a leader should treat everyone with equality.
<b>Conflict management</b>	The leader should resolve any issues and fights that occur during the session.	Group leader should ensure smooth group discussion, if any of the group members are contradicting than he should solve the issue so that, they can work together and achieve their goals
<b>Motivation</b>	Appreciate and motivate participating students	Group leader should encourage and motivate his group member. A pat on shoulder from the leader encourages the students thus, improving his performance.

**Table-2: Summary of the main theme of Affiliative and sub-themes that emerged from the analysis of focus group discussion along with representative quotation from transcript.**

**Emotionally Intelligent:** Students strongly advocated that the leader should be able to manage his emotions and relationship with his group members. He should be respectful towards his team members and they should exhibit tolerance in their attitude, he should communicate with his group members in a way that is not rude or humiliating and should listen to his group members with patience so that they are able to express themselves. They were of the viewpoint that leader should reflect upon himself in order to identify any weakness and should always seek improvement. Sub-themes under the major themes are shown in the Table-3 below.

Sub-Theme	Description	Representative Quotation
<b>Respectful</b>	Should be respectful towards his/her group members and should ensure an environment in which everyone respects each other.	Leaders should show respect towards his group members and should not make fun of good or poor accent of students.
<b>Good Communication</b>	Leader should possess good communication skills in order to make an effective discussion session.	If the leader has good communication skills than the session will be successful. His/her communication skills are very important and play an important role.
<b>Confidence</b>	The leader should be confident and he should have a strong decisive power.	Leader should be confident and he should be able to speak up without hesitating and should have a good speaking power. He should be confident of what he is saying and doing
<b>Tolerant</b>	Leader should exhibit tolerance in his attitude; he should have self-control over his anger.	The leader should control his temperament while students are discussing in the session and he should exhibit tolerance.
<b>Forgiving</b>	The leader should not keep any personal grudge; he should practice the art of forgiveness.	Leader should not keep any personal grudges; he should be forgiving; if he holds on to grievances then he can't be a leader.

**Table-3: Summary of the main theme of Emotional intelligence and sub-themes that emerged from the analysis of focus group discussion along with representative quotation from transcript.**

**Authoritative:** The results of this study that the students were of a view point that the leader should be authoritative in order to conduct the session, they said that in order to conduct an effective session the leader should have some authority and autonomy. They also suggested that the leader should create

such an environment in which the students can do their best and can contribute effectively towards the discussion.

Sub-theme	Description	Representative quotation
<b>Authoritative</b>	Leader should be authoritative	Students attend PBL session to gain marks, since authority is with facilitator; if the aim is to develop leadership qualities among the students than the group leaders should be given some authority and autonomy..
<b>Ensure excellence</b>	Leader should bring out the best from the group members.	Role of the leader is to bring out the best from the group members and should make the session interactive.

**Table-4: Summary of the main theme of Authoritative and sub-themes that emerged from the analysis of focus group discussion along with representative quotation from transcript.**

**Intellectual Ability:** Almost all of the students emphasized that the leader should be competent and knowledgeable. He should have sufficient knowledge and grip over the topic that is under discussion.

Sub-Theme	Description	Representative Quotation
<b>Competent Leader</b>	The leader should be knowledgeable and he should have command over the session that he has to lead.	Leader should have complete knowledge about the topic so that even if someone misses something than the leader can add and explain it to the group members.

**Table-5: Summary of the main theme of Intellectual ability and sub-themes that emerged from the analysis of focus group discussion along with representative quotation from transcript.**

## DISCUSSION

The students were of a strong opinion that the group leader should be conscientious, they also mentioned that the leader should ensure complete coverage of the task allotted to the group within the time frame and should take responsibility of all his actions.

The characteristics associated with Conscientiousness are authenticity, carefulness, reliability, and responsibility<sup>4</sup>.

A meta-analysis conducted on traits of leadership revealed positive correlation of conscientiousness and openness with effective leadership while neuroticism and extraversion were related negatively<sup>5</sup>.

Conscientious people are highly responsible and are aware of their duties; they are truthful and honest<sup>6</sup>. Highly conscientious individuals also exhibit qualities such as carefulness, responsibility, dependability, self-discipline, thoroughness, and persistence<sup>7</sup>.

Honesty, openness, reliability and truthfulness are the hallmarks of conscientiousness. A leader always dares to take full responsibility<sup>8</sup>.

Students suggested that leader should ensure a healthy working environment in which everyone gets an equal chance to participate and share their ideas, thus encouraging them to speak and build harmony among them so that they can work collaboratively as a team and solve any conflicts that arise among the group members. A leader is said to be affiliative if he values people, their emotions and emphasizes on the emotional requirements of his team. An affiliative leader promotes harmony among the group members and makes sure that his team members are happy and focuses on building a team<sup>9</sup>.

***"It is said that 2 heads are better than one".***

Input from different brains working together to achieve a shared goal yields innovative ideas. In order to build a strong team the leader should build harmony and bonding among his team members<sup>10</sup>.

***Team is a group of individuals working together in order to attain a common goal and to achieve their desired objectives<sup>11</sup>.***

Organizing tasks around teams is very common now, most of the organizations carry on some kind of team oriented work. Research points out that teamwork is essential for developing the staff members, people share same objective and responsibilities for the outcomes to be achieved. Teamwork enhances the efficiency and productivity<sup>12</sup>.

***Emotional intelligence is the ability to observe between the one's own and others' feelings and emotions, to discriminate among them and use this information to guide one's thinking and actions<sup>12</sup>.***

Students in the current study were of a strong viewpoint that the leaders should be respectful towards his group members and he should ensure a respectable environment that fosters active participation of the group members.

The karamic idiom ***"what goes around comes around"*** clearly tells us that how we treat other is the way they'll treat us. Previous research suggests that respect is directly related to improved performance. A respectful attitude of a senior towards his group members motivates them to be respectful towards not only the senior but towards the entire team with which they are working.

Students also suggested that the leader should create an environment in which everyone respects each other. Another study mentions that the respectful attitude of team members conveys them their importance and value in the team and also makes them feel connected to the team<sup>13</sup>.

Another study proved that being respected by the group members influences the sense of belonging to the group<sup>14</sup>.

Students suggested that a leader should be authoritative in order to conduct the session, otherwise he will not be able to gain control over the students. They also said that the leader is the commander of the session. Research defines authoritarian as :-

***"Leader's behavior of asserting strong authority and control over subordinates and demanding unquestioned loyalty, submission and obedience from them<sup>15</sup>.***

Studies suggest that the authoritarian leaders hold a traditional concept of leadership that involves compliance and respect for the authority and status. They are highly demanding and expect obedience from their team members and expect their staff or students to follow directions and commands without questioning<sup>16</sup>.

Students also mentioned that the leader should bring out the best from the group member. They were of a view point that group leader should create such an environment in which students can work at their best in order to yield the best. Research also suggests that your team members buy your leadership when they value your leadership skills, they are automatically motivated to excel. However, when they don't value your leadership, they don't buy your leadership resulting in disengagement<sup>16</sup>.

Students were of a strong opinion that for a successful conduction of the session the leaders should be competent. Research also supports the quality of leader as being competent. A lot of researchers on leadership have identified a direct link between intellectual ability and effective job performance. At regular basis leaders are asked to look for innovative ideas to solve complicated problems<sup>17</sup>.

Problem solving by a competent leader involves logical, intellectual and mindful observation of the issues and he may demonstrate smart and effective way to deal with unforeseen events<sup>18</sup>.

## CONCLUSION

PBL group leader plays an important role in the PBL session and his qualities are associated with the group performance. Although qualities of leaders have been identified many times in the literature but

the qualities of a leader pertinent to the PBL have not been explored much. This study describes the qualities that the students expect PBL group leader to have. Previous researches suggest that the PBL is good and effective strategy to develop and hone the leadership skills in the students. This current study will be a guide for the PBL group leaders in adapting the qualities that are expected of them and it will also help medical colleges in inculcating qualities of a PBL leader in their students.

**Limitations:** This research has a few limitations. PBL is conducted in first two years of MBBS at UCM&D. Only second year medical students were targeted. Response of first year students also needs to be explored. The participants in the study only gave their perceptions and definite behavior attributes were not matched with student accomplishment within the curriculum or their academic performance.

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