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Chapter V

Preparing Students for PBL

Introduction

Students working in PBL must be responsible for their own learning and for what they will actually do in their research. Throughout the PBL process, students have to define and analyse the problem, generate learning issues, and apply what they have learned to solve the problem. Instead of working as individuals in the class, students in PBL work as a team and they have to share their knowledge with others. This means that students who are used to traditional methods of learning do not necessarily have the required skills to cope with the different roles expected of them in PBL. This chapter begins with a brief review of the differences between conventional leaning and PBL. Subsequent sections of the chapter describe several important issues that are needed to prepare students for PBL.

Different Role of Students

We believe that it is important to prepare students for PBL so that they can approach PBL more effectively. Students in PBL are no longer passive agents in their learning, but they are actively involved in solving the problem, co-working with the tutor and other students. This means students have to shift from a research-for-solution to exploring-of-ideas approach to learning: "How do I perceive this problem?" "What type of information do I need to solve this problem?" "How can I best learn to become independent learner?"

Students must quickly learn how to manage their own learning in order to make good use of their tutorials and independent study time. The key emphasis in PBL is the changed role of the students in their learning. Instead of passively receiving instruction (objectivist learning), students in PBL are actively constructing their knowledge and understanding of the situation in groups. Students working in groups in PBL need to organise prior knowledge and identify the nature of the problem. They must also pose questions about what they do not understand, design a plan to solve the problem, and identify resources they need to do it.

Students not only have to concentrate on learning the relevant knowledge and skills to solve the problem, but they also have to develop problem solving and learning to learn skills. As students in PBL are expected to work in groups, they have to develop interpersonal and group process skills, such as effective listening or coping creatively with conflicts. In learning how to learn, students also have to measure their success. How do they know they are on the right track? Another problem facing students of PBL is that tasks they have to learn are not clearly defined for them by the tutors. On the contrary, problems students face are often messy, open-ended, real world problems that provide the stimulus for students' learning (Hmelo & Ferrari, 1997). This requires students to have metacognitive skills. It is obvious that students learning in PBL need a paradigm shift. These changes are not easy for students who are used to traditional learning methods, such as lecturing. So, how do we prepare students to cope with the change to PBL?

There are several important issues that need to be considered when preparing students for PBL. These include:

- Change of mindset;
- Commitment;
- Inquiry Learning;
- Making thinking visible;
- Information literacy;
- Team or group work;
- Interpersonal skills;
- Team leadership skills;
- Learning skills;
- Metacognitive skills; and
- Reflection skills.

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