Chapter 6
Creative Thinking Techniques

ABSTRACT

This chapter suggests how to facilitate group learning by creative thinking techniques in PBL. Techniques of brainstorming, checklist, and mind mapping are usually used among students in daily group experience. Using techniques can be reflected by the knowledge conversation model introduced in Chapter 5. Then a case will be discussed on a 5-day creativity training program carried out in Medialogy education at Aalborg University in Denmark. The case brings implications for Chinese universities: 'fun' as a key to creativity training, mediation between individual and collective work, increasing creativity as an identity, and inquires of a long-term effort.

INTRODUCTION

How can we facilitate students to become more creative in their learning activities? The search for different ways to enhance creativity to help people develop more of their potential. According to literature, the pedagogies explored in higher education have been mainly focused on two approaches - explorative approach and instrumental approach (Zhou, 2013). By the explorative approach, an atmosphere that stimulates creative thinking should be built, the starting points are to view creativity as a concept of being situational from a systematic approach and influenced by many contextual factors. Smith-Bingham (2006) pointed out, the best management strategy is to create institutional learning environment and learning culture in which the best young people are free to express their creativity and set their own

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agendas, not being entrained in hierarchies of deference to their seniors. This is what has been discussed in Chapter 3 that highlights PBL as a creative learning environment.

This chapter focuses on integrating creativity techniques into PBL environments that is drawn from the instrumental approach. As discussed by Thompson and Lordan (1999), Baillie (2006) and Zhou (2012), etc., it means to provide techniques to students directly as well as exercises or opportunities to practice them. The techniques employed in practice should be based on the premise that they are used in problem-solving contexts. Participants engaged in creative-thinking exercises aim at solving real problems. For example, as Baillie (2006) suggested, the idea behind many of the random association methods of idea generation is that the brain has much stored information. If we can first purge what is in our working memory, we will unlock the vast store that is available to us. If we can then use methods to start the brain working and making connections - we can sometimes come up with ideas that we would not normally think of when analyzing material in a linear manner. In this sense, creative-thinking techniques rely on forcing us to think differently and then linking back to the problem for diverse new opportunities of solutions.

However, the development of students' creativity and their understanding of creativity should be an ongoing process. They need to be able to capture their evolving perceptions and the teacher needs to facilitate the sharing and accumulation of perspectives across the individuals and groups (Jackson & Sinclair, 2006). Skills of teachers are required to create the atmosphere that is conductive to idea generation, as well as selecting the most appropriate technique, for the participants, in their context and with their particular problem to solve (Baille, 2006; Zhou, 2018). A good facilitator will be able to select a technique that break mind sets are important and a balance of divergent and convergent processes works well. The skills of selecting techniques will come with time.

CREATIVE THINKING TECHNIQUES IN PBL ENVIRONMENT

There are very many publications concerned with creative thinking techniques. For example, in the early 1980s, Geschka (1986) identified 50 and expanded on 23 creativity and ideas generation techniques. However, according to

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