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Teachers' Perspective of their Role and Student Autonomy in the PBL Context in China

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Abstract. The traditional role of the teacher confronts many challenges by an increasing number of educational initiatives that highlight student-centered learning in China, since the teacher's role is in great need of transformation from instructor to facilitator. Therefore, it is quite necessary to examine how teachers perceive their role within a context in the process of making educational innovations. This study relies on two Chinese universities which are changing their educational approach from lecture-based learning to Problem Based Learning (PBL). We examine how the teachers perceive their role in a PBL context. In particular, we are mainly concerned with teachers' attitudes towards student learning autonomy in PBL contexts. The data is mainly relied upon in-depth interviews of the teachers who participate in PBL practice from the two cases. When focusing on how teachers perceive student learning autonomy, we can note three major patterns. In general, Chinese teachers have a tendency to maintain high interference in student learning process even though they admit the value of giving student learning autonomy. This study further indicates a dilemma between teachers' intention to encourage students to learn on their own and their tendency to maintain their directive role in the educational processes.

Keywords: Teacher's role; PBL; student autonomy; Chinese context

Introduction

Many educational initiatives worldwide have emerged in recent years in order to enhance student learning motivation, facilitate student engagement in learning process, and produce more competent graduates (De Graaff & Cowdroy, 1997; Bowe, 2007; Wang, 2008). One major characteristic of these initiatives is the use of more student-centered educational approaches, such as Problem Based Learning (PBL). At the institutional level, many educational institutions in China are currently in the process of implementing PBL, which are widely considered as a student-centered educational approach. On one side, these initiatives are concerned with student learning outcome rather than teacher instruction. That is to say, education should set its focus on learning rather than teaching (Barr & Tagg, 1995). On the other side, education is becoming increasingly concerned with learning process. Within PBL context, student-directed (participant directed) learning is highlighted (Barrows, 1986; De Graaff & Kolmos, 2003). Students are expected to direct the learning process on their own; teachers are expected to act as facilitators to provide support when necessary, rather than as instructors giving them direct guidance. In general, student-

centered learning indicates to give students more learning autonomy. Student autonomy is important since it is conducive for student learning motivation and learning achievement (Stefanou et al., 2004).

Student learning autonomy is closely linked to how teachers perceive their role. By examining PBL implementation in real educational context, many studies show that it is rather difficult to transform teachers' role from traditional instructors to facilitators (Barrett & Moore, 2011). Teachers are so accustomed to traditional educational approach that they are rarely willing to lose their high control over education. A general recognition is that teachers' sense of security is more likely to be challenged in a student-centered learning context (Li &Du, 2013). The emphasis on knowledge acquisition may also enable teachers to maintain their traditional role. Most importantly, the difficulty to restructure teacher-student relationship can be attributed to teachers' perception of their roles. Although many studies suggest that teachers should act as facilitators in a PBL context, the term of "facilitator" has not been clearly defined. Moreover, since teachers' perceptions of their roles will impose considerable impact upon their teaching practice, their perceptions of their roles in a PBL context deserve much research attention, which is far from being sufficient. Currently, though there are many discussions on the role of the teacher in a PBL context, student autonomy, teacher-student relationship (Savin-Baden, 2003; Stefanou, Perencevich, DiCintio, & Turner, 2004; Li & Du, 2013), little has been studied on the teachers' voices regarding these issues (Jiang, 2013). That means, there is a lack of teachers' perspective of how to be a teacher or a facilitator, how much freedom students should have in a PBL context, and so on. Teachers' perceptions are quite essential in understanding the challenges of making educational innovation since their perceptions have a significant influence upon their educational practice.

Therefore, our research questions are thus formulated as below:

1. How do Chinese teachers perceive their role of being a teacher in a PBL setting compared to their traditional role?

2. What are the challenges that the Chinese teachers meet in the transformation towards PBL?

This paper is based on a study on the change to PBL in China in various different aspects such as curriculum innovation, leadership and management change, students' perceptions, learning processes and performance, among others. In this paper we focus on teachers' perspectives in the change process-what do they think of the role of being a teacher in a PBL context and what do they think of student autonomy in the Chinese context. Empirically, this paper draws upon two Chinese universities which are in the process of introducing PBL elements into their own curriculum system.

Concepts and Issues Related to Problem Based Learning

1. Teachers' perception on their roles in learning/educational research

Teachers' perceptions of their role have a considerable impact upon the educational practice field in terms of teacher-student interaction, quality of teaching, or even teacher identity. Teachers who hold a traditional view of teachers' role are likely to adopt a teacher dominated educational approach whereas those who support a student centered notion are more likely to grant more freedom to students. Therefore, the overall transformation from a teacher centered educational approach to a student

centered educational approach calls for a conceptual change of the teachers. It is widely suggested that the transformation from teacher-centered teaching to student-centered learning will eventually lead to a conceptual change of the entire organization (Kolmos & De Graaff, 2007). A radical educational change merely focusing on technical dimension rather than value (such as teachers' perception of how to be a good teacher) is more likely to lose momentum in the long run. Teachers' reluctance for the conceptual change may be accounted by many factors, such as their loss of authority and security, old educational beliefs, institutional support. The perception of teachers regarding the role of the teacher and the teacher-student relationship is heavily affected by various factors. Tradition comprises the basic context which largely conditions the perception of the human being (Gallagher, 1992), in particular, the teacher. How teachers perceive their role is also influenced by the institutional factors such as the evaluation policy. A critical factor affecting teachers' perception is teacher education, or the staff development, and therefore significant implications have been made on teacher professional development.

2. Teacher' role within PBL context

As a newly developed educational approach with a history of over four decades in higher education, Problem Based Learning (PBL) emerged in the medical field at Mac Master University Medical School in Canada in the late 1960th as an alternative to the traditional education approach (Savin-Baden & Major, 2004). One major characteristic of PBL is that within a PBL context, students play a direct role in the learning process. They have much more right to design learning objectives, select learning materials, and choose learning activities, and so on. In other words, students have high learning autonomy when they learn in a PBL context. This is in contrast to traditional lecture based learning that students have little learning autonomy and they should conform to their teachers' instructions. It is documented that PBL approach can produce high learning motivation and high learning achievements in terms of problem solving skills, group work skills and self-study skills (Dolmans & Schmidt, 1996; Bowe & Cowan, 2004; Strobel & van Barneveld, 2009), compared with non-PBL counterparts.

Within the context of PBL, teachers are not instructors; rather, they are expected to become facilitators to offer supportive learning atmosphere and to scaffolding students learning process. From the organizational perspective, many educational institutions, such as Aalborg University in Denmark, Victoria University in Australia, or China Medical University in China, have abolished some lectures and replaced them with problem/project work which is mainly directed by students. Teachers are not always at presence in problem/project work. At a more micro level, researchers have developed many techniques to enable teachers to better act as a facilitator while supervising students (Savin-Baden, 2003). For example, teachers should not offer direct answer but illuminate students when they have questions; or teachers should know how to manage group dynamics when facilitating group work. Although these techniques are quite diverse, they share a commonality, that is, as a facilitator, the role of teacher should be changed which has further implication for a conceptual change of the teacher.

3. Student Autonomy in PBL

When facilitating students, teachers always deal with the issue of student autonomy. For many researchers, autonomy can be conducive for student learning attitude and academic achievement (Stefanou et al., 2010). Students are more motivated to learn when having more autonomy than those who having less autonomy. Stefanou et al. (2010) clarify three types of student autonomies: organizational autonomy, procedural autonomy and cognitive autonomy. Organizational autonomy is more concerned with student choices over environmental procedures, such as negotiating deadline, selecting group member, and so on. Procedural autonomy refers to student choice over the media to present ideas such as how to make a picture to illustrate a concept. Cognitive autonomy is concerned with cognitive processes such as justifying an idea. Stefanou et al. (2010) further argue that although organizational and procedural autonomy are necessary for students to have ownership of their learning process, cognitive autonomy is more likely to facilitate student learning motivation and outcomes.

Student autonomy varies within a PBL context. In general, PBL encourages student autonomy in all three types. Participant directed learning is highlighted to provide students with the right to make decisions over learning objectives, procedures, activities, or even assessment. However, Teachers' attitudes towards student learning autonomy are highly influenced by their perceptions of their role. A teacher who positions himself as a traditional instructor tends to reduce student learning autonomy, while a teacher who sees himself as a facilitator is more willing to grant students more freedom to learn on their own. Currently, though student learning autonomy has been well studied (Barillaro, 2011), teachers' attitudes towards student learning autonomy are still in great need of research.

4. Teachers' role in Chinese context

The role of teachers is high relying upon its context, in particular, the national context, as indicated by Hofstede (1986). In China, the role of the teacher is largely affected by Confucius tradition that highlights teacher dignity and superiority. Traditionally, teacher lies in the center of the whole pedagogical practice. The teacher is seen as having multiple functions: he is a carrier of ultimate truth to illuminate students, a moral model that student should emulate, and a father that students should treat (Li & Du, 2013). Students are expected to respect and conform to their teachers' guidance. Respecting teachers and conforming to them is widely regarded as beneficial not only for education, but also for the maintenance of societal order.

Currently, although tradition has been weakening, its influence on the role of the teacher can still be recognized from several different perspectives. Firstly, teachers play a dominant role in defining educational objectives, learning content, learning activities as well as the assessment method. Students are encouraged to conform to their teachers' guidance, since their teachers are believed to know more and better about the learning process. Further, there is still a moral dimension of education which requires students to act in the proper path (Shim, 2008). This dimension can only be secured by following the instructions of their teachers. Teachers are expected to act as moral models which can be emulated by students. The moral dimension also has implications for pedagogical practice in general. The moral dimension requires teachers to be a good learner, who know more and better than students, and therefore they are worthwhile to be emulated by students. Thirdly, teachers are expected to fulfill a parental responsibility which indicates that teachers should not only focus on

teaching tasks, but also need to concern the whole development of the student. Commitment, dedication, and sacrifice are wide societal expectation for the role of teacher (Zhou, 2009). In pedagogical practice, this means that a teacher is expected to treat student affair as his own business to some extent.

Within this context, the teacher-student relationship in China is highly hierarchical. A cross national study (Hofstede, 1986) on the teacher-student relationship notices the large power distance between the teacher and the student in some East Asian countries including China.

- stress on personal "wisdom" which is transferred in the relationship with a particular teacher (guru)
- a teacher merits the respect of his/her students
- teacher-centered education (premium on order)
- students expect teachers to initiate communication
- students expect teachers to outline paths to follow
- students speak up in class only when invited by the teacher
- a teacher is never contradicted nor publicly criticized
- effectiveness of learning related to excellence of the teacher
- respect for teachers is also shown outside class
- in teacher/student conflicts, parents are expected to side with the teacher

Due to the recognition of teachers' role and the hierarchical teacher-student relationship, student learning autonomy in Chinese context is quite limited. Students are expected to follow their teachers' guidance rather than to learn on their own. However, with the societal development, there is a growing awareness of the importance of the student subjectivity, and therefore many educational theorists and practitioners suggest that student learning autonomy should be respected. However, they are not without disputes. Although some researchers support to establish a student-centered learning approach, others maintain that a student-centered learning approach should also be directed by teachers (Wu, 2010). The value of maintaining teacher's directive position is to secure the order and the effectiveness of the educational process (Zhao, 2011). Without the instruction and guidance from the teacher, students are believed to be not able to grasp the "correct learning methods". Many researchers insist that in a student centered learning environment, teacher authority should still be maintained (Shao, 2007). The authority of the teacher should also be transformed: the teacher authority is conventionally relied upon tradition and institution; however, in future, it should be more relied upon teacher's professional expertise and charisma. In mainland China, although there are a great many discussions on the role of the teacher, little has been conducted regarding how teachers perceive their roles and student learning autonomy at the empirical level.

Methodology

1. Research sites

Empirical study for this paper was conducted at two universities in China. University C, a medical university located in northern China, and University G, a technical university located in southern China. Both universities are traditionally teaching universities bearing a long history of traditional lecture-based learning, or teacher-centered teaching. In recent years, both universities have introduced PBL into their educational system as an alternative approach to learning. At University C, the top manager level initiated an institutional wide plan to introduce PBL in a number of its faculties and departments. Meanwhile, the staff members had the freedom to make their own explorations of what PBL is under the umbrella of PBL concept. At University C, PBL was also initiated by the managers who are enthusiastic of implementing PBL. In general, they are using cased-based PBL, which is commonly used in medical education. A group of around 10 teaching staff were sent to a medical school in U.S to learn how to tutor in a PBL setting for a few months. And this group of teachers taught their peers after their return.

University G is a comparatively young university in China with around 50 years' history. Situated in an industrialized region in southern China, the university has the mission of providing graduates that can meet the needs of regional industry. Being a key provincial university, university G has received sufficient support from the provincial government to develop educational innovation. Since 2008 the university leaders have started different approaches to implementing innovative pedagogy methods in order to increase the quality of teaching and graduates. As one of the major efforts for making educational innovation, PBL (mainly project based learning) was introduced to this university in the late 2008. In the past years, PBL development at this university has been carried out in diverse methods: inviting international experts to organize PBL seminars and share experiences, sending staff to observe PBL practices by visiting two PBL universities (Aalborg University in Denmark and Victoria University in Australia), and supporting interested staff to implement localized PBL methods with the university teaching practice. Until 2013, around 100 teaching staff have participated in PBL workshops, 5 delegation short visits were paid to Aalborg University (each consisting of a vice president and 4-5 deans) to learn about PBL experiences, 8 teaching staff paid one month visit to Aalborg University for PBL related pedagogy development.

2. Research methods

This study is conducted in a qualitative manner. This study is mainly concerned with the perception of the teachers at two Chinese universities which, in the past few years, have been in the process of introducing PBL. The use of two cases is not intended to make comparisons but to complement each other to produce a more validate claim.

Interviews are employed as the major method to collect data. The interview is essentially powerful when researchers explore the human's experience and their understanding of a particular event or phenomenon. Semi structured interviews are conducted in this research to explore in-depth, the interviewees' insight of a particular phenomenon or process, as opposed to the closed-end interview (Cohen, Manion & Morrison, 2007: 353). Further, observation is conducted as complementary means to triangulate the validity of the data. The use of observation is to cross-validate the teachers' perception by offering evidence of how they act in real classroom situation.

According to the principle of triangulation (Creswell, 2009: 191-192), the validity of an argument can be further increased when it is confirmed by difference data sources.

The interviewees are the teaching staff at both universities. Each interview is conducted between 45 and 60 minutes. The interviews are centered on several general themes such as teachers' background, their understanding of PBL, how they conduct PBL in their own courses or classes, how they deal with students, their conceptual change of being a teacher after introducing PBL, the challenges for them to conduct PBL, and their reflections on their practice.

In total, this study is composed of 32 interviews (22 from University C and 10 from University G). Since not all the teachers at the two universities are involving in PBL implementation, we require two universities to provide a list of those who participating in PBL practice. Afterwards, we randomly choose one interviewee from each department at each university. Mostly, the interviewees are PBL participants who during the past years have experienced in developing PBL courses and supervising PBL groups.

After data collection, all interviews are transcribed and manually coded. After several reviewing rounds, the comments and quotations are categorized into different themes and translated into English. Afterwards, the key conceptions are highlighted in each category and correspond with each teacher's perception of the teacher-student relationship. Further, by making a cross-category and cross-case analysis, we are able to identify the patterns across interviews.

Findings

Our interviews are centered on how teachers perceive their role in the educational processes in the PBL context, particularly, how they support student learning autonomy. Three major patterned are emerged based on our data as below:

Table 1: Patterns of teachers' attitudes toward student learning autonomy

	University C	University G
Support large student autonomy	2*	1
Support limited student autonomy while maintaining strong instruction	14	6
Support teacher-centered approach	6	3

***The number indicates the number of the teacher**

1. Supporting giving students large autonomy

Although PBL highlights the value of student autonomy, quite a few teachers support giving students too much freedom. As one a young teacher commented,

> *"Chinese students are highly dependent on their teachers, and it is only by giving them freedom that they learn how to learn on their own."*
>
> *"Of course, the ultimate goal of education is to cultivate students, propel them to grow and develop, let student to learn on their own is indispensable…"*

"Give them the space and let them develop, that is the best way to make students independent and self-responsible, that was the way I developed myself, I believe that it is the best way. "

Considering the objective of the education, the value of giving student freedom to learn is partly recognized by teachers. However, as expected in the next section, rather few teachers support giving student high autonomy from both universities, since the majority of teachers have other considerations in education.

2. Insisting giving students limited autonomy and maintaining instruction

A lot of teachers acknowledge the value of giving students freedom to make their own explorations while still maintaining the value of strong instruction. Maintaining strong teacher instruction comes from various motives.

Some teachers highlight the value of the knowledge contents for student development.

Some teachers maintain that teachers' guidance could help students to learning more efficiently. They suggest that teachers, since they have many years of teaching and learning experience, know the learning methods better than students do. They suggest that it is better for students to follow teachers' instructions since students might learn in a rather slow manner if they make their own explorations.

"Students could avoid being trapped in the winding course if they follow our teachers' instruction."

"They (students) are young and immature. They do not know much about the medical field. They do not know how to learn the medicine in an efficient way. If we allow them to learn on their own, they may waste a huge amount of time on the non-important things. In this sense, teachers' instruction can be a faster way to help them to learn."

"Some knowledge content is quite difficult to understand or to learn by oneself, especially for the students who have no medical experience in real life. But we teachers can, we know the meaning of the knowledge content as well as it relevance to real life. We can make it quite explicitly in, maybe half an hour. If students learn on their own, it may take them a whole day, or, forever."

"Many of us engineering teachers are working very close with industry, so we know what is happening there, but students don't. if we don't tell them how they shall behave, they will risk failing from the beginning. Therefore, experiences from us can be a shortcut for their future development in companies…"

In some occasions, students may expect their teachers to give them instructions.

"There are some students coming to me after the class, saying that "sometimes we can learn on our own, but sometimes we would like to see some powerful guidance from teachers, to make it explicitly about what knowledge contents are important for us. If teachers leave us alone, we cannot learn quite well…"

In this sense, teachers' instruction can serve as a means to secure that students could learn in a correct manner. The reason is that teachers have gathered many years of learning experience, so they believe that they know the right path of learning, the possible mistakes happening in the learning process, as well as how to avoid mistakes. By following teacher instruction, students could learn in a more efficient way. In many cases, teacher instruction may also meet student expectation. If there is a lack of instruction, students may feel insecure.

Further, teachers have a sense of responsibility to motivate students to learn, and safeguard students to learn in the right manner, as stated,

> *"As a teacher, I always have a sense of responsibility for students. We cannot totally leave them alone, that is too risky, they may not learn, or they may not learn correctly. As a teacher, you have to make them to learn…"*
>
> *'They are still young and inexperienced; following good experiences can save their time winding around in the troubles…'*
>
> *"Although as teachers we, the ones who would really like to make a difference in teaching practice, want the students to be independent in conducting research and be responsible for their own learning, it is rather difficult to give them full freedom since our students grew up in China, as you know, they were used to being protected by parents at home and being guided by teachers in schools, unlike those western students who grow up with independence..."*

A few teachers suggest a strong interference in the group work process. As a teacher noticed,

> *"Chinese students are not quite used to learn on their own. You can see that in many groups, students cannot raise questions, or formulate their own problems, or share with other students. In this case, teachers have to force them a little bit. In my class, I sometimes ask students questions to stimulate students to learn or to maintain the dynamics…"*

Another teacher, who is highly enthusiastic of PBL, describes how she conduct the group work,

> *"The design of a problem really costs me a lot of time and energy since I need to include all the "knowledge points" that students need to mention in their discussion. When they discuss a medical problem in the class, firstly I let them discuss on their own. If their discussion has covered all the "knowledge points", that is good. But normally, students are not able to cover all the points. In this situation, I will illuminate them to identify all the prescribed knowledge points by asking them questions."*

In this sense, although the teacher does support student freedom in the learning process, she maintains a control of the learning outcome. That is, student learning outcome should be corresponding to her prescriptions.

Many teachers mention the concern of the assessment method as influencing the relationship between the teacher and the student. They noted that the current assessment method is mainly concerned with the acquisition of the knowledge in the textbooks or from the lectures, teachers have to direct the educational process to help student perform in the assessment procedure. As some teachers expressed,

> *"We know the importance of giving students freedom and encouraging them to make their own explorations, but what can we do if the assessment is confined by the knowledge-dominated test? We have to make sure that the students could memorize all the needed knowledge content and that they can get a good score in the examination…."*

3. In favor of teacher-centered approach

Some teachers think that it is better to use a teacher-centered educational approach in some particular courses, such as the fundamental course. In their minds, which type of educational approach is used is largely dependent on the educational objectives of a particular course or a discipline.

> *"Definitely, PBL is more proper to be employed in the clinical course. You know, students have a lot of opportunities to work at the hospital in the clinical course. They have the chance to meet the real life situation there at the hospital. …however, for our fundamental courses, we are primarily concerned with equipped students with medical knowledge content, and therefore it is better for us to use lecture based learning here."*

> *"In the field of chemical engineering, no matter PBL or not, students are demanded to master many basic knowledge before they are able to apply them in doing project work. For the knowledge master part, teacher can play an important role to instruct them, since it is not just memorizing things as they are. There are techniques to do things."*

The teachers who insist strong guidance in the educational processes are more likely to stick to traditional educational objectives such as the acquisition of knowledge content. Of all three categories, most teachers belong to the second category: they acknowledge the value of student autonomy; however, they have a tendency to maintain high interference in student learning process.

Discussion

PBL requires a transformation of teachers' role from a traditional instructor to a facilitator, and thus encourages teacher to give student more learning autonomy (Barrows, 1986; De Graaff & Kolmos, 2003). However, it is not easy to do so, as suggested by Barrett & Moore (2011), Li &Du (2013). Based on our empirical work, it can be noted that teachers' perceptions of their role and the range of student autonomy supported by teacher vary significantly. A few teachers are supporting giving student sufficient freedom to learn. Within the Chinese context, although most of the teachers have realized the value of student-centered learning, they still prefer teacher's strong direct and guidance in the educational process. Teachers have different perceptions of student learning autonomy. A few teachers realize the value of student learning autonomy for student growth; however, most teachers are more conservative of student autonomy.

Teachers' conservative attitudes towards student learning autonomy can be attributed by many practical considerations. In general, they insist to maintain high interference in student learning because they are attempting to help student avoid mistakes, avoid learning irrelevant content, save time, and grasp the right learning method. They are concerned with both learning outcome and learning process. On one side, high student learning autonomy cannot secure the learning outcome. The teachers are afraid that the students may not learn the needed knowledge content as the educational objective is still concerned with the acquisition of the knowledge content. On the other side, the teachers worry students, who learn on their own, may learn rather slow, or may be more likely to make mistakes. Therefore, teacher interference is regarded as necessary. Here, the effectiveness is a major concern for the majority of the teachers. Many teachers hold that self-directed learning is not an efficient learning method in a medical context where students have quite limited medical working experience. However, we argue that although effectiveness should be taken into

account in educational practice, how effectiveness is interpreted needs further exploration. In our empirical work, the notion of effectiveness seems to be closely linking to knowledge acquisition. However, learning objectives cannot be reduced to mere knowledge acquisition since it also involves students' skill development, attitude change, and so on. In particular, if we are willing to encourage students to become independent learners, to develop self-learning abilities, and to cultivate their critical thinking, sacrificing effectiveness is a necessary cost to a certain degree.

Further, Chinese teachers' reluctance to offer students more learning autonomy is highly influenced by Chinese particular social and moral tradition. Li & Du (2013) argue that in Chinese tradition, teachers are generally expected to fulfil parental obligation. Hence, teachers have the tendency to protect their students since many teachers see their students as immature and inexperienced. Therefore, in some occasions, they are more likely to give students direct guidance in order to avoid mistakes, irrelevance, or low-effectiveness, rather than let them make explorations on their own. However, to respect student autonomy, we should not only give students freedom to make their own progress, but also respect their right to make mistakes, or to learn in their own way (even if it is low efficient). In this sense, the focal point is not whether learning is better or faster, but who takes responsibility of the learning process. Learning is not emulating the teacher; rather, it is a self-directed growing process. Within the Chinese context, teachers have a strong tendency to view students' learning as their own business, and therefore they are likely to secure the learning outcomes by making students follow their instructions. To facilitate student-directed learning, teachers should be detached from the view that they are completely responsible for students' learning outcomes, since students should be responsible for themselves.

Here, a paradox emerges in teachers' perception of their role and student learning autonomy. On one side, teachers are hoping students to develop a set of skills (e.g. self-learning skills) and become independent learners in a PBL context, as shown in many studies(De Graaff & Kolmos, 2003; Savin-Baden, 2003). In order to do this, students should be given sufficient freedom to make their own explorations. One the other side, however, due to many considerations, such as their recognition of educational objectives, alongside many other institutional factors, teachers tend to view that student self-learning should be directed by them. To put it in another way, teachers' intention of facilitate students to grow and learn, and maintaining their dominance in education, are in a paradox. Partly, the paradox is formulated since the teachers have to struggle between a set of conflicted educational intentions. On one hand these teachers are willing to participate in teaching innovation and make a difference for students. On the other hand, they feel responsible to ensure that students should master the knowledge content in the text book in order to build up a solid knowledge foundation or prepare for the examination. They also need to encourage students to construct their own knowledge. This dilemma can also be manifested in many Chinese studies (Song, 2009) which attempt to maintain teachers' authority while creating a student-directed learning atmosphere. Therefore, change of teachers' beliefs takes longer time than the curricula change. It involves challenges and identity struggling for these groups of teachers. In order to facilitate the establishment of PBL, it is necessary to facilitate these teachers who are actively involved in teaching innovation with continual reflection upon their experiences and how to further develop their innovations.

To introduce PBL, the change of the teachers' perception of their role is indispensable. However, this transformation is fairly challenging since their perception is influenced by many factors. The first one is their preference for the effectiveness for educational practice. The concern to education effectiveness leads teachers to highlight the importance of the knowledge acquisition rather than the development of the students' self-learning abilities, since self-learning might be time-wasting and low-efficient. Therefore, to establish PBL, theorists and practitioners need to make reflection on their basic education motives.

Confucius tradition highlights teachers' moral modeling function and their responsibility for students (Wu, 2010; Li &Du, 2013), and it imposes significant impacts upon teachers' perception. A moral modeling function of the teacher (Li & Du, 2013) has implications for both teachers and students. It requires a teacher to endeavor to be a good learner in terms of both knowledge content and learning process. Students therefore should obey the instruction of their teachers and emulate them, since they are good learners that worth modeled. In this sense, teachers' intention of instructing students is not simply based on their intention of pouring knowledge content to students, but also because these teachers expect that their instruction can serve as an exemplary practice of what good learning is. They believe that if students do not follow their instructions, students do not only have problem in memorizing the knowledge content, but, most importantly, are likely to have difficulties in developing the right learning approach.

A student-centered approach does not only mean giving students more freedom to learn but also mean giving students opportunities to take responsibilities on their own. However in China, due to the social expectation of teachers as having parental responsibility (Li &Du, 2013), the student affair is not only the student's business but also the responsibility of the educational institution and the teacher. Therefore, teachers should take the responsibility of student whole development. Teachers do not only need to convey the knowledge content to students, but also need to assure students to learn in an appropriate and efficient manner. Given this consideration, teachers are quite reluctant to give student too much freedom; rather, they would prefer to direct student learning process, not only because they want to secure the educational process but also because they want to be more committed. In this sense, a transformation of teacher perception should also induce a reflection on the identification of the teacher's responsibility.

Many studies suggest that the relationship between the teacher and the student should be transformed in an equal, democratic, or even dialogical manner in the Chinese educational context (Shao, 2007). However, for many researchers, the goal of this transformation is not to establish a democratic teacher-student relationship, but only to respect student subjectivity while maintaining teacher authority. The value of maintaining teacher authority is to secure the educational order and process, since for many educational theorists, the loss of teacher authority will inevitably lead to the increase of educational disorder (Song, 2009; Zhao, 2011). However, we should admit that there is an internal conflict between the intention of respecting student subjectivity and maintaining teacher authority. To some extent, they cannot coexist. Respecting student subjectivity needs the weakening of teacher guidance and teacher authority while maintaining teacher authority is more likely to result in student conformation to their teachers. Therefore, how to deal with the tensions of these conflicted educational initiatives needs further investigation.

Conclusion

This study depicts teachers' perceptions of their roles and student learning autonomy at two Chinese universities. In general, in the process of implementing PBL, the two cases had high efficiency in implementing PBL curriculum, however, the change of teachers' perceptions of their roles take longer time. Most researched Chinese teachers still maintain that they should play a directive role in the educational process, although some of them support the idea of establishing a student-direct PBL learning approach. Maintaining high interference in student learning can be accounted by various reasons: teachers are mainly concerned with the effectiveness of the educational practice, and therefore they attempt to direct students to secure it. Further, Chinese teachers have the tendency to play a parental role to take care of students and thus they are likely to help students reduce possible mistakes and low efficiency in learning processes. The empirical work also discloses a dilemma between teachers' intention to encourage students to learn on their own, and their tendency to maintain their directive role in the learning process.

Moreover, the importance of the context is essential for understanding the teacher's perception. Some teachers develop different ways of conducting PBL due to the context: year of students, subject, learning and teaching objectives. Therefore to what extent teachers should give students learning autonomy is dependent on the context. It is also an issue where teachers take the challenges of their identity and negotiating with the context. Therefore, to build up a student-centered learning approach such as PBL, educational practitioners do not only need to transform teachers' perceptions of their role and student learning autonomy but also need to confront cultural issues in China.

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