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USING REAL LIFE PROBLEMS FOR DEVELOPING PROSPECTIVE TEACHERS' CLASSROOM MANAGEMENT SKILLS*

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ABSTRACT

The purpose of the present study is to try out an education program designed in accordance with a problem based learning (PBL) approach in a classroom management (CM) lesson and to determine student opinion on the exercise. An action research method was applied in the present research. The exercise was conducted in the fall term of the 2010-2011 academic year. The study group was composed of prospective teachers from six branches of the Atatürk Faculty of Education, Marmara University. For the program design, firstly the topics of the CM lesson were determined and learning goals were created. Then, scenarios including the problems concerning CM were developed. The subjects were learned through the solutions found for these problems. In the research, open-ended questions were used as the data collecting instrument. According to the answers, the prospective teachers found this exercise more useful than other way of presentation since it offered more lasting learning; it offered the opportunity to learn by experience; it was enjoyable and motivating as well as being student oriented. The prospective teachers stated that they learned well the problems presented by the groups and the solutions for them; they felt themselves to be more competent in terms of CM; and they would be able to find solutions should they encounter similar problems in the future. Consequently, it can be said that the PBL approach can be used with the aim of developing CM skills in prospective teachers.

Key Words: *Teacher education, Problem based learning, Classroom management*

INTRODUCTION

In the CM lesson, prospective teachers are informed about how to organize and control the classroom, classroom materials, student behaviors and teacher behaviors in order to carry out the education basically in an effective way (Bakioğlu, 2009). Prospective teachers are taught how they should deal with the problems in the classroom by means of a theoretical scale. However, there are always events which can affect learning in a negative way as the classroom is a dynamic environment. A teacher should be educated in a way that he/she can deal with these negative events so as to carry out the education efficiently. In the present system, this skill is acquired by trial and error in real classrooms. This situation may possibly cause negative results for both teachers and students. According to Savin-Baden and Howell (2004), this approach enables the individual to begin a professional life as a more competent problem solver by improving his/her problem solving skills. PBL is generally defined as "the strategy of teaching the subjects presented by specific problems which can help the students to understand

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underlying subjects and principles." (Özvarış & Demirel, 2004). The subjects are learned through problems in PBL. The teacher, who has a facilitating role, presents scenarios which include problems and serves as an intermediary to make students learn by means of solving these problems (Schmid & Moust, 2000). The teacher also enables the students to acquire such basic skills as problem solving (Barrows & Tampley, 1980), investigating, and creativity (Tan, Teo & Chye, 2009) by this method.

PBL is used throughout the world in such fields as medicine, pharmacy, nursery, engineering, law, accounting and teacher training (Savin-Baden & Howell, 2004). In Turkey, it is used in the fields of medicine (Gürpınar, Zayim, Başarıcı, Gündüz, Asar & Oğuz, 2009; Turan, 2009), the nursery (Duman & Akbaş, 2010) and teacher training (Şendağ, 2008) at primary (Cantürk-Günhan, 2006) and secondary school levels (Tüysüz, Tatar & Kuşdemir, 2010). This approach is widely accepted as it prepares the teacher for professional life in a more efficient way than the traditional teacher oriented lessons; it is student oriented; it provides an opportunity for learning by experience and learning according to student speed and interest; it uses active methods and it makes learning more enjoyable (Savin-Baden & Howell, 2004). PBL is also used in the field of teacher education for the same reasons (Choi & Lee, 2009; Edwards & Hammer, 2004a; McPhee, 2002; Yassin, Rahman & Yamat, 2010). As students are different from each other in the classroom, a convenient solution for one may not work for another. Thanks to the problem solving skill that he/she will acquire through PBL, the prospective teacher graduates an ability to generalize the solutions (Savin-Baden & Howell, 2004).

According to the results of the studies conducted in primary, secondary and higher education, PBL increases academic achievement more than traditional teaching methods (Çiftçi, Meydan & Ektem, 2007; Deveci, 2002; Reynolds & Hancock, 2010; Şendağ, 2008; Tüysüz et al., 2010; Ünal, 2008). The persistency of the teacher is also higher as active methods are used within the framework of this approach. It also changes the attitudes towards lesson in a positive way (Cantürk-Günhan, 2006; Çiftçi et al., 2007; Deveci, 2002; Özgen & Pesen, 2008; Tüysüz et al., 2010). The main purpose of PBL is to enable students to solve problems in their professional and daily life. According to studies conducted, it can be said that the method achieves its goals (Edward & Hammer, 2004a; Kaptan & Korkmaz, 2002; McPhee, 2002; Reynolds & Hancock, 2010).

Insufficient research in this field has been conducted in Turkey (Şendağ, 2008; Ünal, 2008) although PBL is convenient for teacher training (McPhee, 2002). These research studies concern field courses. However, it is necessary to determine the convenience of PBL for the lessons of different education science, the students' attitudes towards the exercise and exercise principles. Turkey is late in using PBL in the field of education even though its advantages in fields such as medicine, law etc. has been proven. It is thought that the findings obtained in this research will guide the academics who want to use PBL in the classroom.

METHOD

Research Model

The purpose of the study is to test an education program designed in accordance with a problem based learning approach in a classroom management lesson and to determine student opinion on the exercise. Action research was used within the scope of the qualitative research. According to Bassey (1998), action research consists of investigation, evaluation and changing activities for improving education practices. In this practice, researcher teachers make plans to solve a problem that they have encountered; they apply it, assess it and expand their findings

by making necessary adjustments. Action research is highly useful as it derives from any problem; the practitioner is also the researcher; the findings are presented in the desired way; and it is not obligatory to generalize the findings (Koshy, 2005). Individual and focus group discussions, participant observation and open ended questions can be used as a data collecting instrument in the action research (Kuzu, 2009). In the present research, open ended questions were preferred as the data collecting instrument.

Research Group

The research was conducted on prospective teachers who study in the fields of Elementary Science Teaching, Elementary Mathematics Teaching, Biology, Turkish Language and Literature, English, German and Religious Culture and Moral Knowledge in the Ataturk Faculty of Education of Marmara University and who took CM courses in the fall term of the 2010-2011 academic year. These fields were preferred as their CM courses were the responsibility of the researchers. The number of students who participated in the research is 210, however data were collected from 146 students since the data collecting instrument was applied in the last week of the education semester.

Data Collecting Instrument

In the actual study, a "questionnaire form" was used for data collecting. The form was prepared by the practitioner researchers with the aim of ascertaining student opinion on PBL design. There are eight open ended questions in the form. The questions seek to ascertain student opinion on the PBL approach, teaching design, assessment style, the cooperation based teaching method and its problems.

The State and Practice of Education

In the present study, a version of PBL which was modified by the researchers was used. In the process of preparing state of education, primarily the titles were found which were appropriate for the content determined by the Board of Education: Knowing the student, communication, motivation, conflict management, teacher leadership, dealing with problematic behaviors, time management and attending courses preparedly. In line with these issues and topics, learning goals were created and scenarios for achieving these goals were developed. CM course books were examined for the scenarios (Bakioğlu, 2009; Celep, 2008; Karip, 2007; Okutan, 2008) and convenient scenarios were taken from these course books. In the event that there were no convenient scenarios in the course books, the researchers prepared them themselves. Then, instructions and project assessment rubric and presentation assessment scale were developed. Information about student responsibilities and the assessment scale was given in the instructions. A project assessment rubric was developed for assessing the problem solving texts of the groups. A presentation assessment scale was developed for assessing the presentations of the groups.

CM is a 5^{th} or 7^{th} term course worth two credits. The education period lasts 14 weeks. The first week of the implementation process was organized as course week. In the second week, the students were informed about PBL. Then, the students were sorted into groups of 2-6 persons. The groups chose their scenarios at random. As the scenarios were already in order, the chosen scenarios also decided the presentation order. For the remainder of the course, each group discussed its own problem scenario and its possible solutions. Four questions were prepared for this discussion in order to be systematic. The groups were given three weeks to prepare the

solution reports. The groups were given an assessment rubric as a guide for the preparation of solution reports. Furthermore, suggestions were made to the students on sources, and students were asked to use at least two scientific articles. It was also stated that using sources other than those suggested would lead to higher grades. Finally, students were required to ask two teachers with at least five years of experience to read the scenario and to add their answers to the report.

In the third and the fourth week of the exercise, the researcher lecturers made their presentations on the main issues in CM. The purpose of this presentation was for the students to form a structure for their course.

In the fifth week of the exercise, the first scenario group made its presentation. The order of the presentations was as follows:

(1) Presenting the scenario to the classroom by role play.
(2) Discussing the problem in the scenario and the proposed solutions with a summary of the results by the class, moderated by the presentation group.
(3) Presenting the opinions of two teachers experienced in the subject to the class and the discussion of these opinions by the class.
(4) Presentation of solutions by the group to the class.
(5) Presentation of the solution to the problem in the scenario to the class by means of group role play.
(6) Feedback given to the presentation group by the lecturer and the other groups.

At Marmara University, two exams are taken: the midterm (40%) and the final exam (60%). In this exercise, 80% of the midterm grade consists of the report prepared for problem solving and 20% of it consists of the midterm exam grade itself. The reports were measured according to a"report assessment rubric". Eighty percent of the final grade is for presentations, and 20% of it is for the grade achieved in the final exam. The presentations were measured according to a "grading scale". A peer assessment technique was also used for the presentations. In this exercise, 50% of the group grade was given by the lecturer while the other 50% was given by the other groups. While distributing the scores to the students, a "group score" method was used in accordance with a cooperation based learning method. In this exercise, the score is given to the group and all the group members obtain the same score (Roger & Johnson, 2009).

Research Practice

The research was conducted in the fall term of the 2010-2011 academic year. The education program of Marmara University consists of 14 weeks, excepting midterm and festive holidays. The research continued until the end of the education period as explained above. Student opinions on the practice were determined via a "questionnaire form" in the final week.

Data Analysis

The data obtained through the questionnaire were firstly transferred to a computer. In this phase, student answers were collated under "negative" and "positive" categories. Then, six themes were created by examining the answers given. The findings were organized according to these themes.

FINDINGS

Opinions Regarding the PBL Approach

According to the findings obtained from the student opinions, the students found PBL better and more efficient (N=103) than other teaching methods such as teacher presentation and group presentation. Some of the students stated that they would also prefer PBL in other classes were they to be given the opportunity (N=15). The reasons for finding PBL more efficient/useful/better for students is that it provides lasting learning (N=35); it supports active participation (N=20); it gives the opportunity for learning by experience (N=19); it is enjoyable and motivating (N=18), it is student oriented (N=14); it is useful for teaching experience (N=13); it gives the student an opportunity to learn by his/her own efforts (N=10) and it provides cooperation (N=5). Some of the expressions supporting the ideas above are as follows: "This method is better. I prefer this method", "This method is better. Otherwise the lessons are boring", "... we learned practically what attitude to assume in almost every case we might encounter in the future", "... lasting learning happens in the course of the studies conducted", "learning by experience enables lasting learning" and "I find it both enjoyable and lasting".

Most of the students who participated in the practice and who presented their opinions (N=121) stated that they wanted to carry out lessons with PBL and some of them stated that they did not (N=13). The students who stated that they wanted to have education with PBL suggested that: it provides an enjoyable learning environment (N=32); it offers lasting and efficient learning (N=26); it presents useful information (N=17); it allows for student participation in the lesson (N=12); and it is student oriented (N=6). The students who do not want to carry out lessons with PBL stated that they did not want it as it takes a long time; there are students who shift responsibility to their group colleagues for the work that they should be doing and there is group study involved. Some of the expressions supporting the opinions above are as follows: "This method is very nice. I would like to take the lesson again. I wish all our lessons were like that…", "I am taking this course for the second time.…The way of carrying out the lesson makes me feel closer to the teaching profession", "carrying out lessons with this method is very enjoyable and it does not bore us, the students".

Opinions on PBL's Effects on Learning

All of the students (N=114) who presented their opinions on the effect of PBL on learning stated that PBL supported their learning. They also stated that they would be able to solve similar problems in their practice (N=34); they felt themselves more competent in terms of CM (N=30); and it would be useful for the problems they might encounter while teaching (N=21). Some of the students thought these practices useful, however, they did not bring life competences, such competence can only be acquired by teaching (N=21). Some of the expressions which support the opinions above are as follows: "I can say that I feel myself more competent", "This method supported me to learn efficiently... I think that I acquired opinions to deal with the problems in a good way", "I think that I can present better solutions to the problems that can occur in the classroom with these examples", "I think that it supports my learning. I can say that I am more confident in myself", "I researched the problem myself".

Opinions on the Problem Scenarios

The students who participated in the research gave positive and negative opinions on the scenarios. One hundred and two of the students who expressed positive opinions stated that

they found the scenarios clear and comprehensible and 27 of them stated that these problems are the kind of problems that can be encountered at school. As a negative, they mostly suggested the difficulty of determining the problem (N=23). There were also students who stated that the problems were not very wide-ranging (N=2) and that they were simple (N=2). Some of the expressions which support the opinions above are as follows: "the problems were very explicit, we understood them easily…", "the problems were the kind of problems encountered in the classroom", "the problems were clear and easy to identify", and "In our own problem we had difficulty in identifying the main issue".

Opinions on the Role of the Lecturer

In this study, the lecturers had a guiding role in relation to PBL. The students stated that the lecturers performed the duties required of them in their practice (N=77). Some students stated that it was good that the lecturers scarcely intervened in the process (N=8), they did not want them to be active (N=17) and they felt themselves to be more comfortable as a result (N=4). However, there were also students who were not satisfied with this role of the lecturer. Eighteen of the students wanted the lecturer to be more active in the classroom. They also demanded more evaluation after the presentations (N=12). Some of the expressions supporting the opinions above are as follows: "He performed his guidance duty… He could have been more active in intervening on the issues concerning problem solving", "The lecturer intervened when it was necessary…", "… he presented this as a constructivist approach, which was very nice", "He performed his guidance duty. He helped us to analyze the whole of the problem" and "It was good that he was in the background in the lesson. I think that this increases the self confidence of the person who makes the presentation".

Opinions on Working in a Group

The students made a group work as required by PBL. Moreover, the students chose their groups themselves. The groups consisted of two to six persons. The students were generally satisfied with working in groups. Many students stated that there was no problem in the process (N=80) and that it was an enjoyable practice (N=35). There were some students who stated that its reason was that they formed the groups themselves (N=14). In spite of the generally positive opinions, some problems were also stated. These problems concerned the sharing of subjects, an unfair distribution of work (N=20) and a dislike of group work (N=5). Despite these problems, all the groups performed their tasks in the practice. Some of the expressions supporting the opinions above are as follows: "…it was delightful to work with friends", "…we did not have any problems", "It was enjoyable", "We did not have any problem as we chose our group friends by ourselves" and "It was okay, we did not have any problems. Everybody performed his/her own task".

Opinions on the Assessment Method

The assessment of the practice was made as stated in the method section above. Most of the students (N=80) stated that they found this method useful. There were also students who stated that it was useful to be assessed by friends (N=31). Some suggested that in the assessment method, there is/may have been favoritism, which is negative (N=21). Some students indicated that written exams made in midterms and final exams should be more significant a part of the on the pass grade (N=7). Some of the expressions supporting the opinions above are as follows: "It was useful", "In my opinion, it was useful. It provided an increase in the participation", "It was useful to be assessed by other groups", "It is not very objective to be

assessed by other groups as everybody may give high scores so as not to hurt their friends" and "the assessment should absolutely be this way".

DISCUSSION, CONCLUSION AND PROPOSALS

In PBL, students conduct studies to find solutions to the problems taken from real life. With learner oriented practices, besides learning at their own learning speeds and in accordance with their own learning styles, students experience also an enjoyable process. This process increases the motivation of students (Cantürk-Günhan, 2006; Çiftçi et al., 2007; Deveci, 2002; Özgen & Pesen, 2008; Tüysüz et al., 2010) and it encourages them to take a positive attitude towards the lesson (Tan, Chye & Teo, 2009). The students found PBL more efficient and better than other teaching methods as it provides lifelong learning; it gives an opportunity to learn by experience; it is enjoyable and motivating, it is student oriented; it is useful for teaching experience; it gives the student an opportunity to learn through their own efforts and it provides for a cooperative approach. Other methods, noted above, refer to lecturer's teaching style and group studies, which were compared as they are used frequently in teacher education. These results show a similarity with those in the literature.

The students indicated that they would prefer PBL in their future lessons since it provides an enjoyable learning environment; it offers lifelong and efficient learning; it presents useful information; it provides for student participation in the lesson and it is student oriented. In teacher oriented practices, the only duty of students is, in general, to listen to the lecture in the classroom. Thus, the students have no other responsibility. However, PBL is a practice where the student is active in research; he/she prepares reports and shares the findings. That is to say, students hold many responsibilities in the learning process. Student oriented practices can be shown as a reason for preferring PBL over more teacher oriented methods. The findings of the present research show similarities with the findings of the study conducted by Bowe and Cowan (2004) with university students. Students found PBL interesting, enjoyable and motivating. Similar findings were also obtained in the study conducted by McPhee (2002) on prospective teachers. Also, in the study conducted by Edwards and Hammer (2004b), prospective teachers found PBL useful in terms of its practicing opportunities.

There are also students who do not prefer PBL. Five students who gave reasons for not preferring PBL indicated that it takes a long time; some students benefit from the works of others and the working in a group itself is negative. The CM lesson falls within a period when students are anxious about the Public Personnel Selection Examination and they are preparing for it. For this reason, they want to spend most of their time preparing for that exam. The students may not have wanted the PBL exercise as the work for PBL takes up a great deal of time. PBL requires that students work cooperatively in groups. Group work can mean some members may contribute little, and some students prefer not to work in groups.

PBL increases student learning thanks to its student oriented practices. This is especially the case with the problem solving skills that it encourages (Bowe & Cowan, 2004; Edward & Hammer, 2004a; McPhee, 2002; Kaptan & Korkmaz, 2002; Reynolds & Hancock, 2010), students become able to solve problems similar to those they may encounter in their own lives. The positive effect of PBL on learning has been proved in many studies (Çiftçi et al., 2007; Deveci, 2002; Reynolds & Hancock, 2010; Şendağ, 2008; Tüysüz et al., 2010; Ünal, 2008). Also, the actual study involves students statements about their gaining an understanding of CM through PBL practice. The students indicated that they would in future be able to solve problems similar to those met in practice and that they felt themselves to be more competent in terms of CM. In line with this, it may be said that PBL shows effects that are in compliance

with those found in the literature. Scenarios are used in PBL in order to present problems in such a way as they will be encountered in real life. Real or fictional events can be used while creating these scenarios (Barrows & Tampley, 1980). In the present study, fictional scenarios developed by the researchers were used. The scenarios were designed in a semi structured way so as to create original ideas. In these kinds of scenarios, there is a problem state determined by the moderator; however, the problem has more than one possible solution. While most of the students found the scenarios in the present study clear and comprehensible, some of them stated that they had difficulties in identifying the problem. The sparse information given in the scenarios may also have caused them to have difficulty in solving the problem and finding the focus. On the positive side, the students emphasized that the problems in the scenarios are the kind of problems which can be encountered in real classrooms. These findings may indicate that most of the scenarios prepared were in compliance with the rules.

In the present study, the lecturers took a guiding role as required in PBL. As the role required, they designed the teaching process; they prepared the environment, however, they did not intervene in the teaching process very much (Schmid & Moust, 2000). From the answers that the students gave, it is understood that they perceived the role of the lecturer in a positive way. The fact that half of the students indicated that the lecturer performed his task appropriately may evidence that. Moreover, the students found it positive that the lecturer did not intervene in the presentations that concerned the solution of a problem. However, there were also students who were not satisfied with the role of the lecturer. Some of the students wanted the lecturer to be more active in the classroom. They also demanded more evaluation after the presentations.

PBL combines many teaching methods. One of these methods is cooperative learning. Cooperative learning is a teaching method in which students come together to produce a product or to learn a subject and they are responsible for each other's learning. In cooperative learning, students get scores after work they produce in a group and this score is distributed to all the members equally (Roger & Johnson, 2009). In this study, cooperative learning groups were established as PBL required. The students established their own groups by themselves. The groups consisted of two to six persons. The students were generally satisfied with working in groups. Most of the students indicated that there was no problem in the process and it was an enjoyable practice. Despite generally positive opinions, some problems were also expressed. These problems concerned sharing the subject, an unfair distribution of work and a dislike of working in a group. In spite of these problems, all the groups performed their tasks. The general student satisfaction level may have resulted from the fact that the students formed their groups on their own.

As PBL is a student oriented practice and different products can be produced with different learning methods, the assessment should also be student oriented (Graaff, 2004). When it comes to student oriented assessment, such processes or authentic assessment techniques as portfolio, rubric, grading scale, control list, observation, self assessment, peer assessment come to mind (Janesick, 2003). According to circumstances, classic tests are also used in PBL (Richard & Omdals, 1980). In this practice, the written exam, rubric, grading scale and peer assessment techniques were used. Midterm and exam grades were used in giving the students pass grades. Eighty percent of the midterm grade was based on the project prepared for solving the problem and 20% of it was based on the written exam. Project assessment was made by means of the rubric. Eighty percent of the final exam consisted of preparations for solving the problem and presentation and 20% consisted of the final exam. The preparations and presentations were measured with a grading scale. The presentations were assessed by both the students and the class lecturers. Most of the students indicated that they found this assessment

method appropriate. There were also students who stated that they found it appropriate to be assessed by friends. Some of the students considered this to be negative as there is an element of subjectivity in peer assessment. There were also students who wanted the exams to be more significantly a part of the pass grade. The students had generally positive opinions about the assessment method and this may have resulted from the fact that they did not experience exam anxiety.

As a consequence, it can be said that the PBL oriented teaching design created by the researchers can be used in CM lessons. It can be said that this exercise may enable them to deal with the problems more easily thanks to the problem solving skill it brings besides academic knowledge. A prospective teacher who learns by experiencing this approach in a faculty of education can apply the solution to similar problems when he/she becomes a teacher. The exercise process provided the prospective teachers with a motivating and active learning environment via student oriented practices. It can be said that the students had positive attitudes towards the teaching design using this method. The removal of problems encountered in the exercise by the teacher will make the exercise more effective. The researchers will again use this practice in subsequent years by improving the scenarios in line with the criticisms. Similar practices can also be used in other teacher training lessons. It is thought that it will be more appropriate especially in guidance and counseling and educational psychology lessons. Apart from that, experimental research studies, where this design and different teaching methods are compared, can be conducted on the CM lessons.

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