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**PROJECT BASED LEARNING: A CONSTRUCTIVE WAY TOWARD
LEARNER AUTONOMY**

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ABSTRACT

Project-based learning (PBL) is based on the idea that students learn by experiencing and solving real world problems. Students, as a team, investigate a complex question, problem or challenge as an extension of what has already been learned in class in this extended process of inquiry and present a project. As it requires authentic use of language in order to communicate with group members, class mates and the teacher, PBL can be very useful in EFL (English as a Foreign Language) program if the "voice and choice" of the students are developed through carefully planned and managed instructional benchmarks. This research was conducted to investigate the opinions of the English prep school students about the Project Based Learning implementation they were involved in at the School of Foreign Languages at Selçuk University in Konya, Turkey, in 2011-2012 academic year. The case study, one of the descriptive qualitative research models, was used as a method in the study. 50 randomly selected prep class students participated in the study voluntarily. The data were gathered through face to face interviews and a semi-structured form with 6 open ended questions. The findings revealed that Project Based Learning could be used as a means to guide learners advance towards autonomous learning. It was also noteworthy that formative assessment should take place in the learning environment as involving learners in their own assessment will help them see their strengths and weaknesses.

Key Words: Project-Based Learning, autonomous learning, EFL.

ÖZET

Proje Temelli Öğrenme öğrencilerin gerçek dünya problemlerini yaşayarak ve çözerek öğrendikleri fikrine dayanır. Proje Temelli öğrenme sürecinde öğrenciler sınıfta öğrendikleri konuların bir uzantısı olarak karmaşık bir durum, soru ya da problemi ekip arkadaşları ile birlikte araştırırlar ve buna yönelik bir projeyi sunarlar. Proje Temelli Öğrenmede, proje geliştirme süreci boyunca iletişim kurabilmek amacıyla öğrencilerin grup üyeleriyle, projelerini sunarken ise diğer öğrencilerle ve öğretmenleriyle konuşmaları gerektiği için, dikkatlice hazırlanmış ve uygulanmış yönergeler yoluyla öğrencilerin “tercihleri ve sesleri” duyulabilir ve İngilizce öğretiminde faydalı sonuçlar alınabilir. Bu çalışma Konya Selçuk Üniversitesi Yabancı Diller Yüksekokulu’nda 2011-2012 akademik yılında uygulanan Proje Temelli Öğrenme sürecine katılmış İngilizce Hazırlık sınıfı öğrencilerinin Proje Temelli Öğrenme hakkındaki görüşlerini ve düşüncelerini araştırmak amacıyla yapılmıştır. Araştırmada yöntem olarak betimsel nitel araştırma yöntemlerinden vaka araştırması kullanılmıştır. Çalışmaya tesadüfî örneklem alma yoluyla seçilmiş 50 İngilizce Hazırlık sınıfı öğrencisi gönüllü olarak katılmıştır. Veri toplama aracı olarak yarı-yapılandırılmış 6 açık uçlu sorudan oluşmuş bir form kullanılmıştır. Ayrıca yüz yüze görüşmeler vasıtasıyla da veri toplanmıştır. Araştırma bulguları Proje Temelli Öğrenmenin öğrencilerin özerk öğrenme sürecinde ilerlemelerine yardımcı olabilecek bir araç olarak kullanılabileceğini ortaya koymuştur. Ayrıca, araştırmada öğrencilerin kendi güçlü ve zayıf yönlerini görmelerine yardımcı olacak formatif değerlendirme yöntemlerinin öğrenme sürecine dâhil edilmesi gerekliliği önemli bir bulgu olarak dikkat çekmiştir.

Anahtar Kelimeler: Proje temelli öğrenme, özerk öğrenme, İngilizce eğitimi.

1. Introduction

Project-based learning is based on the idea that students learn by experiencing and solving real world problems. The principle behind the model comes from a tradition of pedagogy that dates back Piaget (1952), who asserted that humans learn through the construction of complex logical structures progressively, rather than the transition of knowledge from teacher to student. Dewey (1938) also contributed to constructivist theory as he believed learning begins with the curiosity of the learner in a spiral path of inquiry, each step of which leads to the next: inspiring new questions, investigations, and opportunities for authentic “learning by doing”. Similarly, Vygotsky’s socio-cultural theory of development that focuses on the “zone of proximal development” has a significant place in the foundation of constructivism. According to this theory, learning takes place when students solve their problems beyond their actual development level under adult guidance or in collaboration with more capable peers. Vygotsky suggested that the teacher’s job is to help facilitate meaning construction by modelling or demonstrating, by asking questions or coaching, by creating a learning environment in which peer assistance can occur (cooperative and collaboratively providing readings or hands-on materials that support the next stage of learning), or group by modelling or demonstrating, by asking questions or coaching, by creating a group task in which peer assistance can occur (cooperative and collaborative learning), or by providing readings or hands-on materials that support the next stage of

learning (Vygotsky, 1978). Influenced by Vygotsky, Bruner (1996) proposes the idea that education tends to work well in participatory, provocative, communal and collaborative learning environments where learners are encouraged and guided to construct meaning through a process of discovery.

In putting the ideas based on Vygotsk's proximal zone development theory into the classroom practice, Pearson and Gallagher (1983) coined the phrase *gradual release of responsibility* to describe process that leads students to become independent learners. In this model, the teacher and the learner work together through a carefully guided process where the responsibility is transferred from teacher to learner. This model combines Piaget's work on cognitive structures and schema, Vygotsk's work on proximal zone of development, Bandura's work on attention, retention, reproduction and motivation, and Word, Bruner and Ross's work on scaffolded instruction. In their visual representation of the model, Fisher and Frey (2008) present the theory in the words of teacher addressing the student as follows: "*I do it*", "*We do it*", "*You do it together*", "*You do it alone*".

Project work is an extended process of inquiry through which students investigate a complex question, problem or challenge as an extension of what has already been learned in class. PBL complements Vygotsky's (1978) Zone of Proximal Development (ZPD) and constructivist view "learning by doing". PBL is an extension of Vygotsky's ZPD that allows learners to take-on learning independently after effective instructor modelling and group practice. Project Based Learning (PBL) can be used to help direct English language learners towards autonomy through well planned stages of learning that emphasize interaction, critical thinking, problem-solving, and collaboration. In PBL, the "voice and choice" of the students are developed through carefully planned and managed instructional benchmarks. Regular formative assessments of those benchmarks help serve to guide students along the sequence of the project encouraging them to dig deeper into the concepts presented and learned in class. Teachers and learners develop an inclusive relationship learning partnership among group members and facilitating classroom teacher.

In PBL, students work collaboratively, in pairs or teams, to develop a product or solve a problem by following some steps like planning, organizing, negotiating, arriving at a consensus about such issues as tasks to be performed, methods and materials to be used and responsibilities to be shared. Interaction, critical thinking, problem solving and collaboration are some of the benchmarks of PBL. The key components of PBL were identified by Larner and Mergendoller (2010) as significant content, a need to know, a driving question, student voice and choice, 21st century skills (collaboration, communication, critical thinking, the use of technology), inquiry and innovation, feedback and revision, and publicly presented report.

Since PBL requires authentic use of language in order to communicate, it can be very useful in EFL program if the "voice and choice" of the students are developed through carefully planned and managed instructional benchmarks. PBL creates a learning environment where learner centred activities like information gaps, learner-to-learner interviews, role plays, simulations and collaborative writing with peers are designed carefully so as to lead learners to use problem-solving strategies, language for negotiation and effective methods for developing the project.

In addition, as Moss and Van Duzer stated (1999), what makes project work exciting, challenging and meaningful to adult learners is that it is organic and unique to each class since not all problems can be anticipated and sometimes a project may move forward in a different direction than originally planned.

In the last decades, several studies conducted on Project Based Learning have revealed increasing concern about the issue (Blumenfeld, et.al., 1991; Meyer, Turner and Spencer, 1997; Becket and Slater, 2005; Becket and Miller, 2006; Bender, 2012). In Northwest Regional Educational Laboratory Report, Railsback (2002) assembled research on the common features of PBL as follows:

- Student centred, student directed
- A definite beginning, middle and end
- Content meaningful to students; directly observable in their environment
- Real-world questions or problems
- First hand investigation
- Sensitivity to local culture and culturally appropriate
- Specific goals related to curriculum and school, district, or state standards
- A tangible product that can be shared with the intended audience
- Connections among academic life and work skills
- Opportunity for feedback and assessments from expert sources
- Opportunity for reflective thinking and student self- assessment
- Authentic assessments (portfolios, journals, etc.)

As for Turkey, the overall picture of English language education does not seem to correspond to the features above since the results of various studies have revealed that English Language Teaching is not at satisfactory level in Turkey (EC, 2006; Zok, 2010; Education First, 2011; Koru and Akesson, 2011). A very comprehensive needs analysis report by TEPAV (The Economic Policy Research Foundation of Turkey) and British Council (2014) into the English Language Teaching in Turkish public schools has indicated that English is not taught according to the contemporary language teaching methods. The report states that grammar based language teaching which aims to get students to be successful at multiple-choice exams results in teacher-centred classrooms where memorized rules and gap filling drills prevail in the learning environment. As Project Based Learning is considered to have potential to offer a solution to the problems faced in English Language Teaching in Turkey, it has been a topic of several studies (Bas, 2011; Erdem, 2002; Gultekin, 2005; Gulbahar and Tinmaz, 2006; Kılınç, 2010; Zorbaz and Çeçen, 2009) However, these studies investigate the problem as either descriptively (Erdem, 2002) or from the point of other subjects like science education (Gultekin, 2007; Kılınç, 2010) and Turkish language education (Zorbaz and Çeçen, 2009), or at primary school English Language Teaching (Bas, 2011)

The lack of functional language use was a problem at the School of Foreign Language at Selçuk University where this study was conducted. A study held in the same school in 2010-2011 education year had revealed that teacher-centred English language education rather than focus on developing English skills for communication and collaboration hindered the communicative competence of the participants (Güven and Brewster, 2013). Also, another

study carried out in the same school to investigate the opinions of teachers about the PBL implementation in 2011-2012 education year had indicated that the participants had some considerations about Project Based Learning (Güven and Valais, 2014).

The needs analysis conducted, in the light of the literature review, by the researchers of this study revealed that both the instructors and the students needed help with more communicative approaches for developing the four skills in English, and thus a two week teacher training programme on empowering learner autonomy was conducted at the School of Foreign Languages through the collaboration between Selçuk University and U.S. Embassy, Ankara, English Language Office from October, 24 to November, 4 in 2011. The researchers of the study, who had worked before in the E-Teacher Scholarship programme by Maryland University as the trainer and the trainee took part in the programme as teacher trainers and programme designers. Just following the programme, Project Based Learning was implemented at school for five weeks and the researchers investigated the students' attitudes towards PBL implementation which they had for the first time in their life. Formative assessment was used as a way of assessment and the students were asked to assess their peers according to their weekly performance each week in the classroom. As for the topic of the project, the students were asked to plan, produce and present an advertisement campaign for a new product which they have devised.

The research questions were as follows:

- 1) *How did you like/not like Project Based Learning?*
- 2) *Was the time of the year suitable for implementing PBL?*
- 3) *What do you think about the project topic?*
- 4) *Was the rubric clear?*
- 5) *What do you think about how you were assessed?*
- 6) *Would you like to take part in future PBL projects?*

2. Method

The case study, one of the descriptive qualitative research models, was used as a method in the study. 50 randomly selected prep class students participated in the study voluntarily. Their views were asked to evaluate the process and get insights for further studies. The research environment was the School of Foreign Languages, Selçuk University, in Konya. The data were gathered through face to face interviews and a semi-structured form with 6 open ended questions. In forming questions, the findings of the preceding study which investigated the views of the teachers who had taken part in the same PBL implementation at school were taken into consideration (Güven and Valais, 2014).

3. Findings of the Study

According to the research findings, to the first question “*How did you like/not like Project Based Learning?*” most of the students, 36 out of 50, responded they liked Project Based Learning while 7 of them said they did not. As for the rest, 6 students said it was not bad / OK and one student said he had no idea about it. Another finding was that although they were not asked specifically in this question 18 students complained about the assessment.

The second question was about the time of the PBL implementation. 12 of the students said that the time of the year was suitable for PBL but the rest, 28 students, said it was not. The researchers decided to ask this question to see whether there was a parallelism about timing between the opinions of the teachers and the students who took part in the same PBL implementation, because the preliminary study of this research, which had investigated the views of the teachers that implemented the PBL with these students, had found that some teachers criticized the time of the PBL implementation as it had coincided with the first mid-term exam and thus caused stress among some students (Güven and Valais, 2014). The opinions of teachers and students about the timing were similar as both thought it was not a good time to do the project just before the mid-term exam.

The participants’ opinions about the topic of the project were mostly positive: twenty-eight students used such adjectives as “interesting, enjoyable, funny, motivating, and driving” and 11 students used expressions like “it was good/ not bad / OK” or “I liked it / I didn’t get bored” but 11 of these 39 students added some notes like “there should/might have been other alternatives”. The rest of the participants expressed negative opinions about the topic and said “it was boring/tiring/uncreative/I didn’t like it/etc.”

The fourth question was about the clarity of the rubric and the findings revealed that 31 of the students thought the rubric was clear /easy enough to understand, however 17 of these students also added there were too many things to do (e.g. *easy to understand but difficult to follow; clear but there too many things to do, etc.*). On the other hand, 12 students said it was unclear /difficult and the other 7 students said it was OK.

As for the question what they thought about the way they were assessed, it was found that majority of the students, 42 out of 50, meant they did not like being assessed in that way. The adjectives used in answers and their frequencies were as follows: unfair (23), unreasonable (8), unreliable (3), weird (1). The other 8 students used the following positive adjectives: interesting (3), enjoyable (2), funny (2), stressless (1).

The last question was about whether they would like to part in further PBL activities. The findings showed that 37 students said they would like to take part in other PBL activities. 6 students said they might do it if they are allowed to choose their team mates. The rest, 7 students, said they would not like to participate in any other PBL activities.

4. Implications for Further Studies

In view of the studies comparing learning outcomes students acquire through collaborative learning, it can be concluded that PBL brings about positive impacts on students' attitudes towards learning as well as improving their problem-solving and collaboration skills, and long-term retention of content (Johnson, Johnson and Stanne, 2000; Oakley, et.al., 2004; Strobel and van Barneveld, 2009).

PBL is one of the methods used in the constructivist classroom. In a constructivist classroom, students learn by making connections between what they already know and what they potentially can learn through various processes under the guidance of teachers who help students attain their intellectual identity. Teachers encourage students to use their higher thinking skills like analyzing, predicting, justifying and defending their ideas. Teachers do this by engaging students in experiences that challenge hypotheses, for which real-world possibilities and group discussion are very useful (Brooks and Brooks, 1993).

This study has revealed that most of the students liked working collaboratively to develop a product. The finding that the number of the participants with positive views about the overall picture of PBL implementation is higher than that of those with negative comments is significant as it suggests that PBL may be adopted as an alternative to traditional teaching methods used commonly at schools. On the other hand, it should also be noted that although the number of the students who did not like the topic is only 11, nearly half of them (22) directly or indirectly stated they might have preferred other topics. This finding suggests that topics should be varied so as to appeal to different learner needs and interests.

The findings of the study indicate that students did not like the way they were assessed because majority of the participants (42) expressed negative feelings in their answers to the fifth question that asks their opinions about the assessment, and 18 out of 50 students complained about the assessment though they were not asked in the first question. From the given data, it was found that they were uneasy about being assessed in collaborative groups as they said "*it was unfair to be assessed equally as a group when everybody in the team did not contribute to the project equally.*" Some others also said "*it was nonsense/not right, etc. being assessed by other students.*" or "*I don't think it was a good idea to assess myself.*" These results suggest that the principle behind formative assessment was not understood or explained clearly enough. It is noteworthy that the findings offer strong implications for better understanding between teachers and learners about formative assessment as an instructional classroom practice that helps identify where learners are in the learning process and what adjustments need to be made in instruction to help them achieve the targeted objective. This result is significant because it points out that formative assessment, a crucial part of Project Based Learning, should be dealt with comprehensively. The reasons behind the students' disapproval of formative assessment and the ways to overcome their difficulties in adopting this type of assessment should be taken into consideration.

In learner centred approach, students evaluate their own learning through self and peer evaluation as well as teacher evaluation. Assessment is used to promote and diagnose learning by leaving room for learner self-monitoring, peer feedback, reflection, and revision. Formative assessment is a critical part of instructional process because when incorporated in the classroom practice, formative assessment provides opportunities to reshape teaching and learning while they are happening. Formative assessment informs both teachers and students about student understanding at a point when timely instructional adjustments can be made that help insure students achieve targeted learning goals (Leahy, Lyon, Thompson, and William, 2005). The key point is that if students are not involved in the assessment process, formative assessment is not practiced or implemented to its full effectiveness; thus, students will not learn how to take responsibility of their success, nor “know how to fix” (self-correct) their failures. They will not develop strategic competence nor develop the metacognitive skills needed to achieve learner autonomy such as critical reflection, planning, monitoring, and self-regulation (Black, 1993; Black and William, 1998; Torrance and Pryor, 1998; Atkin, Black and Coffey, 2001; Shepard, 2009; De Meester and Jones, 2009; Heritage, 2010).

It could also be suggested that they are not familiar with how teamwork would be assessed as a group. Considering the state mandated exams in Turkey, which students have to pass to be able to study in reputable secondary schools or to go on their education at university, it might be argued that students are accustomed to multiple choice exams and teacher centered learning environments. It is a fact in Turkey that lots of students from various ages attend private learning centers apart from their schools to pass these exams. Since it is a must to be successful in these exams for the quality and the continuity of the students’ education, all stakeholders, not only students but also parents, teachers, schools and non formal education institutions, pay great importance and attention to passing them (Küçük and Çepni, 2004; Güven, Sunbul and Calışkan, 2008; Crawford, 2011).

These findings reveal that Project Based Learning could be used as a means to guide learners advance towards autonomous learning. It is also noteworthy that formative assessment should take place in the learning environment and the reluctance exhibited by students should be worked out because research has shown that through formative assessment, teachers and students move learning forward in reciprocal activity, where the provision of scaffolding, including feedback, self-monitoring, and self-regulation on the part of the students are key components (Leahy, Lyon, Thompson, and William, 2005). As Black and William (1998) concluded from their review of prior research into evaluation, effective formative assessment can be proposed to involve

- adjustment made by teachers to education process regarding the assessment evidence
- feedback given to students about their learning along with guidance to improve it
- students’ participation in the process through peer and self-assessment

Similarly, DeMeester and Jones (2009, p. 7) stated that “a critical component of quality formative assessment is teachers’ use of the evidence obtained from students’ performance on assessment tasks to adjust instruction and to guide students in adjusting their learning strategies”. The research into formative assessment seems to reach consensus around its potential benefits as researchers generally point out that formative assessment is the process of getting and using the information about students’ learning during the course of instruction, which help teachers interferences to improve students’ learning (Black, 1993; Black and William, 1998; Torrance and Pryor, 1998; Atkin, Black and Coffey, 2001; Shepard, 2009; Heritage, 2010). For the successful implementation of formative assessment, precise and measurable goals should be set, the type of the data and the ways to collect it should be determined, collected data should be reviewed regularly and on a determined basis, and a classroom culture in which teachers and students are partners should be established (Heritage, 2010).

As a conclusion, the positive attitude exhibited by the students towards collaborative learning suggests that Project Based Learning might bring innovation to the monotonous teacher-led language education which characterizes the English language education in Turkey. On the other hand, it should also be noted that the strong resistance towards formative assessment, which is an essential part of PBL, might pose an obstacle to reaching learner autonomy. Considering these findings, we recommend that more comprehensive studies into the use of PBL in different age groups be carried out at nationwide. We also would like to point out that formative assessment should be investigated from various aspects to see whether it is approved by other learners at different learning stages and environments. It might be helpful to determine the state and prospect of formative assessment beforehand so that the curriculums based on Project Based Learning and learner autonomy could be implemented properly.

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