

## **The Notion of Student Learning in Problem-Based Learning (PBL) Business English Course (BEC) in a Malaysian University**

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**Abstract:** There is a line of research dealing with the fundamental features of Problem-Based Learning (PBL) that are related to student learning. Aspects of learning context, social interaction and self-directed learning are the concepts frequently discussed in relation to real life scenarios, learning in collaboration and independent learning in PBL. Using the classroom concepts of Learner Identity (LI), Learning Context (LC) and Learning in Relation (LR) as the dimensions of variation to understand the teaching and learning process, this study unfolds the notion of student learning for the group of learners experiencing PBL in Business English Course (BEC). The data for this study is drawn from one of the researcher's research on learner's perceptions of PBL in a BEC. A phenomenographic research paradigm was adopted to study 25 research participants who are learners of English as a Second Language (ESL) from BEC using PBL. Data were collected through interviews, field notes and artifacts. The findings of this study draw both specific and general conclusions that are expected to raise implications for future scholarship and practice in teaching and learning of English using PBL in Malaysia.

**Key words:** Problem-Based Learning (PBL), student learning, interviews, notes and artifacts, findings

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### **INTRODUCTION**

There is a line of research dealing with the fundamental features of PBL that are related to student learning. Aspects of learning context, social interaction (Gibbins, 2008) and self-directed learning (Dahlgren and Dahlgren, 2002) are the concepts frequently discussed in relation to real life scenarios, learning in collaboration and independent learning in PBL. Savin-Baden (2000) dealt with the importance of similar concepts in her PBL study which she termed as Learner Identity (LI), Learning Context (LC) and Learning in Relation (LR) (Savin-Baden, 2000). Below is a brief explanation concerning the important terms and concepts used as a framework in this study.

**Classroom learning concepts:** Learner Identity (LI), Learning Context (LC) and Learning in Relation (LR) are used as the dimensions of variation in the current research. These concepts were introduced by reflecting on commonly used categories in the analysis of teaching and learning processes, especially the concepts of self, others and context. From the many versions of these general concepts, Savin-Baden (2000) framework is chosen because it is concise, relevant classification and located the interview responses into one of the categories of learning in relation, learner identity and learning context.

The researcher has modeled and termed the three dimensions of variation in the current research after the terms used by Savin-Baden (2000) and many other educational scholars. As the data analysis progressed, the findings which were the perceptions of the learners, fitted easily and naturally into these categories and no reworking of these categories was needed to honestly accommodate the emerging data. These categories employed in current research turn out to be quite similar to those employed in relevant phenomenographic research. Gibbing (2008)'s learning context and social interaction are the same as the concept of LC and LR in the current research. Dahlgren and Dahlgren (2002)'s self-directed concept is similar but not identical with LI used in the current research. The similarity can be drawn in relation to both being centred on the learners and the position learners take up in the learning. While, 'self-directed' connotes a narrow meaning and is confined to the learner's independence in the learning whereas LI constituted a broader meaning which includes the role and identity created by the learners in the learning.

### **MATERIALS AND METHODS**

The data for this study is drawn from one of the researcher's research on learner's perceptions of Problem-Based Learning (PBL) in a Business English Course (BEC). A phenomenographic research paradigm

was adopted to study 25 research participants from BEC using PBL (Mohd-Ali *et al.*, 2016). Data were collected through phenomenographic interviews, field notes and artifacts. Using the terminology of phenomenographic research, the learner's perception (the findings) is defined as the outcome space, containing two analytic aspects: the referential aspect (categories of description) and the structural aspect (dimensions of variation). In this study, only data related to student learning is presented and discussed in terms of LI, LC and LR.

## RESULTS AND DISCUSSION

Empirically, the variations of LI, LC and LR make sense. There is little overlap (Fig. 1). Generally, each variation can be divided and treated separately because the research data provided a picture of distinct experiences from learners that could be grouped into three different variations: LI, LC and LR. However, there is an element of overlap because LI, LC and LR are to some extent interrelated: although, analytically separable and empirically distinct in terms of perceptions both theoretically and in real life we know they are related parts of a recursive process or syndrome. LI is influenced by the context (LC) and interaction with people (LR). LC has a bearing on learner's position in the learning (LI) and the communication with people (LR). LR is influenced by the context (LC) and learner's taken up positions (LI). The variation in the current research is in line with the phenomenographical outcome space structure which reflects both the distinction and relationship between the variations.

In practice, Savin-Baden's learning concepts generally useful and reflected by the emerging data in the current research. The relevance and applicability of the concepts are distinctive in the current research. LR was the most salient experience (based on the frequency count of the dimensions of variation) and student-centredness is the most experienced element (based on frequency count on the categories of description). Thus, LR and student-centredness correspond with each other positively which reflects a collaborative teamwork basis of a PBL environment in a BEC that aims at English language usage through collaboration. The consequences of learner's most salient experience in LR might have prompted learners to talk about their identity (LI) more than LC. Although, there is no explicit evidence to show this as cause and effect, the logical reasoning here is the fact that their experience in the teamwork and collaboration (LR) work throughout the PBL has made them reflect on the roles and positions they took up as learners (LI) in completing the task. Accordingly, LC was

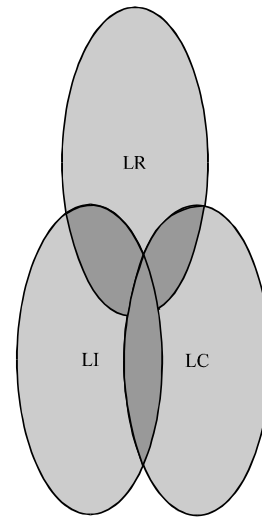


Fig. 1: The overlap of dimensions of variation

the least salient experience for them because in the context of the current research the learners had more experience of PBL discussions outside classroom hours and therefore, there was a high possibility that they were not able to explicitly link the context/environment of the learning.

In other words, Savin-Baden's concepts of learning: LI, LC and LR have been taken further in the current study because the concepts are consistent with but do not account for the actual spread of responses in dimensions of variation across the categories. They also work across the sequences of PBL (the Anchors) which is a dimension of phenomenographic or phenomenological research not given much attention. These findings imply that the use of these concepts can be extended as a way to measure learners interpretations because the concepts LI, LC and LR will vary in different contexts with different participants and thus can act as an in built tool for comparisons.

The outcome space and categories of description provide a platform for application to teaching practice. However, as Bruce *et al.* (2004) pointed out 'since the specific circumstances of learning environments differ greatly, it is usually not possible to be prescriptive concerning the practical application of research result's. Thus, it is only possible to make general suggestions to aid readers in using these findings as a point of comparison with and basis for application to, their respective cases.

**Learner Identity (LI):** Adopting Savin-Baden's concept of LI for the reasons mentioned at the beginning of this study, LI is defined as an identity formulated through the

interaction of the learner and learning. This notion of LI encapsulates but moves beyond the notion of learning style and encompasses positions that students take up in learning situations, whether consciously or unconsciously.

In terms of LI in the current research, learners delineated their understanding of knowledge and experience of being a consumer in future. They also mentioned that the experience improved their team building skills. They perceived the task as satisfying and fun due to the ability to perform. The student-centred nature and the various steps involved in the tasks made the learners perceive the task as difficult. It was also the student's individual preference to work on the task only (for the majority) on the brink of the submission date. Most have shown the gain in the PBL learning because their understanding of such knowledge came through their own efforts (under increasing timeline pressure) to engage with an unfamiliar learning environment.

However, they did signal some kind of disjunction in the LI. In this case, learners portrayed that the student-centred nature, the PBL steps and task were difficult for them and thus they needed assistance from the staff.

I think the task is not as easy as I thought because this is research and it involves many steps and teacher's help too (L10-12) TISUMP3i3RP3. Quest No. 3 in the log was difficult because we were not sure what to include (L65-66) TISUMP2i1RP7. Confused whether we should find only one solution for all the three problems and need help from the teacher (L101-103) TISUMP2i1RP7.

Being in a student-centred learning environment the learners were expected to find alternative scaffolds rather than getting direct help from the staff when they had problems in the learning. This is a kind of disjunction which could be related to what Savin-Baden (2000) termed 'performative slide'. This can mean that learners are denied the opportunities to formulate their learner identities because the learning was operationalized by the society or institution. In this case, the learners failed to create learner identities since the staff failed to operationalize the learning situation in which learners were expected to be more independent in handling the obstacles in their learning. Therefore, when the learning was beyond their current ability or without previous experience the learners lost the opportunity to formulate their identities as competent or successful learners.

Thus, one implication of my findings is that the staff has to be more flexible in extending the scaffolding specifically for the novice PBL learners who, if they struggle with the basics in PBL would not be able to cope. Research has proven that learners-especially novice PBL

learners-often have difficulty at the onset of the process (Kolodner *et al.*, 2003; Simons *et al.*, 2004). This trend tends to be consistent across various levels of students ranging from primary to post-secondary. Previous research based on student interviews has demonstrated that dissatisfaction arose from the ambiguity of not receiving clear instructions and not being aware of the exact amount of information needed to perform in a study of pre-professional students registered in PBL-focused programmes (Dahlgren and Dahlgren, 2002).

However, the staff has to be strategic in extending scaffolding as the amount of scaffolding introduces a number of tensions that the teacher or designer must weigh before proceeding. According to Reiser (2004), one of the biggest tensions shows the need to scaffold student's efforts but not control them to the level that it is no longer an open-ended environment. Students are expected to shoulder the responsibility and carry out investigation independently, so limiting them may prohibit independence.

The task of simplifying mechanisms of the problems and content without making them superficial is another strong problem (Simons *et al.*, 2004) because it is essential that students know the difficulty of the given area, weigh the trade-offs and realize the principles of cause and effect. At a certain stage, consideration should be focused on whether or not the simplified area actually reflects the intended learning. While it is undeniable that scaffolding can aid student success in PBL, especially when we consider they may not otherwise take charge of their own inquiry, understand or put together new content or think reflectively (Reiser, 2004), it is the teacher's responsibility to be aware of the fact that the success of these scaffolds depends, to a great extent, on the ability of the teacher to both create and apply them in the classroom.

There are no fixed rules on how to find the balance between too much or too little: the teacher's experience will assist in discovering the amount of scaffolding reasonable to meet the requirement of a student-centred environment. To produce effective student-centred learners, it is always ideal and usually effective to extend less scaffolding than more and assist learners to discover the possible scaffolding available, for instance by looking for extra materials, help from peers and by reflection on apparently unsuccessful learning attempts.

**Learning Context (LC):** The second concept that is in the dimension of variation of the current study is learning context. It incorporates the interplay of all the values, beliefs, relationships, framework and external structures that operate within a given learning environment.

In relation to LC, learners in Category 1 (mirrors real life/future experience) perceived that the context of the task was relevant to the learner's field of study because the subject matter was related to the business field. In taking up university education, many learners expect to enhance their future professional career prospects (Gibbins, 2008). The focus for students in my study is on how well university education prepares them for future professional work in the business field and how they experience this academic learning (Dahlgren *et al.*, 2000) in press. The real life nature of the PBL context prompts the nurturing of generic skills needed by the undergraduates to assist them to make a link to a future job. In Category 2, they were able to make a connection between learning outside the classroom boundaries and the real world job experience. Having a break from the traditional classroom nature of learning which is confined to the four walls in the classroom, learners saw the freedom of discussion they had outside the classroom as similar to the experience that they might experience in their future career.

In other words, student learning has been aided by the different learning context of PBL which helped learners see the direct link to their future life. Moreover, in Category 3, learners claimed that the nature of the learning contributed to the increase in external drive to engage in the task and the freedom in approaching and completing the task made the process of learning interesting and exciting.

The students felt that learning was interesting and fun as well as motivating because of the freedom they had in the learning process. Challenging because had the feeling that you are the real person in-charge to redesign the layout and had the freedom to design the layout (L512; 266-270) TISUM P2i1RP6. It was enjoyable too because it was not formal, more relaxed and everyone contributed ideas (L239-244). TISUMP3i1RP4-TEAMWORK. The meetings and discussions were done outside classroom so we had all the freedom to chat and have fun while doing our work (L247-257)TISUMP1i1RP7-PRO&PRE.

This shows the importance of learner autonomy in the learning because learners tended to relate the freedom they experienced with fun and joy. The degree of autonomy to be extended to learners in a student-centred environment is always an issue because no one can prescribe the right amount of freedom to be extended to the learners, except possibly for the respective staff teaching the specific class who has a grasp of the knowledge and understanding in respect of the learner's ability.

However, based on the current research, a general guideline is proposed in relation to novice PBL learners.

It relates to the familiarity of the PBL task and process. Based on the familiarity of the task and process, the staff could indicate the amount of freedom learners might need. For instance, PBL1 in the current research was a scenario-based case study and it was conducted as an introductory PBL lesson. Thus, the learners were guided and facilitated continuously to ensure they understand the new learning method. In PBL2, the learners were given more freedom to explore the task and the process and for PBL3 they had most freedom. Freedom here is not connoting that the learners were left alone without help: rather it means they were given the opportunity to make their own decisions when they were uncertain about how to proceed and were given appropriate levels of assistance if they sought help from the staff.

**Learning in Relation (LR):** LR means the idea of students learning with and through others in ways to make connections between their lives and other subjects and disciplines and with personal learning opportunities (Weil, 1989). Savin-Baden adopted Weil's definition on learning in relation and since the definition meets the type of data that have been categorized under this concept, the same definition without modification in the current study.

In Category 1, learners found that the redesigning of the layout of a team was challenging because it reflected their future job challenges. The learners were aware and able to make connection to their future job challenges. Gibbins (2008) found similar experiences with his people who made direct connections between their current studies and skills, competences, technical processes and transferable tools in their existing or future professional careers due to the context of learning and real life scenarios presented in the PBL problems. The challenge here could also be related to the difficulty of the task and the availability of different levels of experience and perspectives in the learning group.

Whichever the reason, both types of challenge are important for student learning because challenge triggers the cognitive aspect in learners to engage in the task successfully.

The task was difficult and challenging (L8-10) TISUMP3i3RP6. The task is interesting but challenging because we will be meeting 'real people' to interview and can improve communication skills (L83-86; L97) TISUMP3i1RP6.

Those responses highlighted that the learners felt that the task was difficult, interesting and challenging. However, the responses did not signal that the learners were not able to manage them. Viewing the learner's responses from Krashen's Input Theory (Krashen and Terrell, 1983), learner's possible reasons for the sense of

challenge can be better understood. Krashen's Input theory proposes the formula of I+1 (current cognitive level+1 level higher) in order to help learners move forward cognitively with the trigger one level higher which also acts as a challenge for learners to proceed. In the current research, the learner's current knowledge and ability in doing the PBL task and the element of challenge embedded in the task through the use of problems as cognitive triggers, helped learners for better learning.

The task is a challenge for us to complete and had to be more critical in the process (L156-159) TISUMP3i1RP8. Challenging because had the feeling that you are the real person in-charge to redesign the layout and had the freedom to design the layout; high responsibility (L512; 266-270) TISUMP2i1RP6.

The most challenging part was to respond to question 5 in the PBL log. Sometimes the possible solution isn't that difficult but we need to really think out of the box to get it right (L179-181) TISUMP1i1RP1.

In addition, the nature of the student-centred atmosphere also can be linked to Krashen's Input theory. The independent nature of learning in a student-centred environment which is another challenge for learners, might act as 'one level higher' of the current ability because it calls for higher level cognitive skills to be involved in a series of activities in the student-centred environment.

In other words, Krashen's input theory unfolded the learner's experience of challenge in an appropriately structured PBL environment, specifically in relation to having a problem/case as the departure point in learning and in encouraging students to adopt the role of independent learners in a deliberately structured student-centred atmosphere.

The reflection of the real world in activities such as meeting, communicating and gathering information from real people were considered by the learners in my study as interesting and improving communication skills. Learners seemed to be aligning with the aim of the current course because they managed to see the relevant aspects and at the same time to contribute to the benefit of student learning generally by sharing specific interpretations of real life scenarios. However, learning with and through people is always a big challenge because there are various types of individuals in a team. In the current study, learners were not happy when others put less effort into their work and did not contribute to the group work because it slowed down problem solving and caused the whole group work to be less successful.

This behaviour is called 'social loafing': it is widespread and resistant to appeals by staff in student-centred and flexible situations where supervision

might be less and where effective punishment for unequal contribution by students is difficult to enforce. Social loafing can be defined in several ways. Aggarwal and define social loafing as 'a behaviour pattern wherein an individual working in a group setting fails to contribute his or her fair share to a group effort as perceived by group member's (Aggarwal and O'Brien, 2008). Piezon and Ferree (2008) have a different definition which says social loafing is 'the tendency to reduce individual effort when working in groups compared to the individual effort expended when working alone' (Piezon and Ferree, 2008). Either way, the concept of social loafing involves group members who neglect their responsibilities within their learning groups and fail to pull their own weight (Goo, 2011).

In the current study, three reasons were identified for social loafing; first, being in an unfamiliar group of classmates; second, having a new member in the group and third having a passive member in the group.

Not knowing and being comfortable with a team member does affect my contribution of ideas (L383-388). TISUMP2i1RP6 I was upset with the teamwork because Mai was not cooperative and moody, especially in last two meetings (L51-57; 84-88) TISUMP3i3RP2. Decided to keep ideas to oneself because were not sure how the new group members would react (L102-104) TISUMP1i1RP8.

Found it difficult to accept new members or be in a new group (L219-220). TISUMP2i1RP2. We had a passive member in the group; I was tired of pacing out work just because of one person (L27-33) TISUMP2i1RP8.

In the current study, the members of each team were randomly selected by the staff. Since, the learners portrayed being uncomfortable in a new team or having a new team member, the implications for future improvement would be to reconsider the group formation. Chapman *et al.* (2006) found that students in self-selected groups more frequently rated their groups as having better teamwork. Additionally, these students voiced fewer concerns and had more positive attitudes towards their groups (Goo, 2011). Thus, it is recommended that learners be given the freedom to self-select the team members that they are comfortable with so that they could work better as a team.

However, there are also instances when a team member who is comfortable with another claimed that she had not been contributing to the teamwork. It was unfortunate that we couldn't do much in the meeting yesterday without another member's data, so I ended up not doing nothing and played around (L208-212) TISUMP2i1RP1-PROCESS. I really feel guilty because Nuha was trying to do something (L213-215) TISUMP3i2RP1-PROCESS.

The learner highlighted in the quotations above is a good friend of Nuha: however, since there was another member that she was not in favour of and who was absent for a group discussion, she lost her focus as a team member. Therefore, instead of cooperating with her good friend, Nuha the learner decided to go off focus and play around, even though she felt guilty for doing so. In this situation, there ought to be a set of shared goals for all the members of the group on which the assessment is based, so that each learner will be alert to the individual goal he/she has to obtain to gain the whole team goal.

Other significant issues in the current study in relation to teamwork were gender and culture. Had experience of a female teammate crying because I did not complete my study till the night before the assignment due date (L274-275) TISUMP2i1RP8-PROCESS.

Difficult to group with girls; they are pushy (L281) TISUMP2i1RP8-PROCESS. The girl in my group panic quickly and I told her not to because I was afraid the next day during presentation, her face will look gloomy (L294-295) TISUMP2i1RP8-PROCESS.

The responses above came from a male team member who was grouped with two females and another male learner. The respondent (the male) was very unhappy being in a group having female members since he claimed that they were emotional, pushy and panicky. Besides the highlight of the gender conflict, this situation also related to cultural conflict. The participants in the current research came from a religious school background and they were not used to having a mixed group in their previous classes. Being in a group with mixed gender for the first time, the male learner made such claims about the females in the group. Thus, both gender and cultural conflicts are embedded here.

In order to tackle these issues for future improvement, more mixed gender group work should be planned in future to make learners comfortable with each other. In a practical sense the mixed gender group was not favoured by students in the current study. This was because of the distance between the male and female hostels which would make the outside classroom meetings difficult for the learners as usually, they would have to hold their meetings at night and travel to a common location for discussions. Hence, the starting point would be to have mixed group discussions at class level and further extend this to outside classroom discussions. Once the learners are familiar and comfortable with each other, they would not see the outside group meeting as an issue at all.

However, the recommendation above was meant to break the barriers between the genders for a better social

relationship and not so much to improve group effectiveness. In the current study (based on the practical issue that was mentioned above) the learners still managed to achieve the aim of the group work even though they were having gender specific groups.

The most practical way to handle conflict is often through negotiation. Negotiation is defined as a dialogue between two or more people that is focused on resolving a perceived difference in interests or goals (Pruitt and Carnevale, 1993). In a study conducted by Miller and Engemann (2004), the results indicated that negotiations (Miller and Engemann, 2004). It is also recommended that negotiation skills are taught and modelled to learners in the learners and consequences are made clear. In this way, all the members in the team will be aware of the kind of negotiation skills they ought to apply when the need arises.

## **CONCLUSION**

Business English in Malaysia took centre stage when in 1993 the Malaysian political establishment set an aim to make Malaysia a fully 'developed' economy by the year 2020. There is a growing realisation in Malaysia that in order to stay competitive in the global market and to attract foreign investments, one of the practices required is to use English which is the language of communication in the domain of international business and industry (Kim, 2003; Samuel and Bakar, 2006). Business English communication is taught in Malaysia as part of teaching English for Specific Purposes (ESP) and Business English (BE). Business English courses are conducted at the tertiary level and are taught to learners who are enrolled in Business Studies (Baharum and Tretiakov, 2007).

The growing emphasis on generic skills in higher education has several sources. One is the increasing evidence of demand from business and employer organisations for graduates to possess generic skills. There are also various economic, technological and educational arguments that have brought generic skills to wider attention. The contemporary focus on generic skills is really part of a bigger as yet unresolved, debate about the purpose of university education and how to develop well educated persons who are both employable and capable of contributing to civil society.

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