Business English Listening and Speaking Course Blended Learning Activities: Evaluation Model Construction and Application

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Abstract: Based on the third-generation activity theory and blended learning instructions, this study explores the evaluation model of factors in on-line and off-line BL learning activities in Business English Listening and Speaking courses. The result shows that students' learning motivation positively influences their attitude towards the teaching resources and compliance with rules. The effective correlation of on-line and off-line resources integration further influence students' overall learning outcomes and gains. Teachers' on-line and off-line feedback shows great effect on the overall performance. The model contributes greatly to the solution of blended learning effects evaluation. The study provides meaningful and practical implications for applying the third-generation activity theory in blended learning activities evaluation model construction.

1 INTRODUCTION

Blended learning is a way to combine traditional teaching activities with online teaching activities. At present, BL based on SPOC and MOOC is a new form of teaching innovation. And the focus of BL has been shifted from the teaching resources design to the design of teaching activities. The third-generation activity theory focuses on the conflicts of internal factors in an activity system and the integrations of these factors. The third-generation activity theory can provide theoretical bases and guidance for BL activities design and better learning outcomes. BL in foreign language teaching has exhibited its unique characteristics. Its flexibility and effectiveness has been recognized widely. However, the studies on how to evaluate the effectiveness of foreign languages BL activities have been deficient. Business English Listening and Speaking course is the core curriculum for Business English major students. The course aims to improve students' listening and speaking ability in the business environment. Business knowledge, listening strategy, and communication skills are all important knowledge input for the course. The course is a big challenge for both teachers and students. Based on the third-generation activity theory, the study will focus on the conflicts and interactions in the blending learning activities of Business English

Listening and Speaking course. And the study aims to deepen the application of BL in Business Listening and Speaking courses and also to provide effective reference for the evaluation of BL activities.

2 RELATED THEORY AND RESEARCH

2.1 Blended Teaching Activities Design in Business English Speaking and Listening Course

Blended learning is a new approach that combines online teaching materials and resources with off-line classroom-based teaching activities (Guan, 2020). Blended learning is to enhance the teaching and learning experiences for teachers and students by combining face-to-face learning activities with on-line learning activities. In recent years, many cases showed that BL can achieve better learning outcomes. Also more efficient teaching and better course management can be seen in BL, as it provides more diversified ways of knowledge input and teaching methods. Technology advancement provides new opportunities and tools for students to learn in multi-medium environment. BL is designed and delivered in a way that enhances and changes the teacher's role

from a lecturer to a facilitator, from a dominator to a helper. BL on-line platforms can further support class activities like group discussions, deliverables submissions, and feedbacks provisions. Varied BL materials increase the availability and richness of learning resources for students to interact with each other and collaborate.

2.2 The Third-Generation Activity Theory

Activity theory views that in the process of human leaning activity, the role of mediations is very important and it is the key factor for the learning subject to change the objects and to realize the cognition development (Vygotsky,1978). Activity theory has evolved for generations. Vygostky in 1978 firstly proposed the first generation of activity theory as part of the social cultural theory. The idea of Vygostky is that human interactions are based on mediations and interactions with the surrounding environment. And in n1981, Leont forms the second generation of activity theory based on the first one. With the increased interest on individual and common complexity, together with the existing of social mediators, the second generation of activity theory contains more levels of activities. In 1999, Engestrom and Miettient further propose that human activities are realized through practices and collaborations. This is the third generation of activity theory and it includes at least two sets of interaction activities.

Based on the third-generation activity theory, the imbalance and mismatch between interactions is dynamic (Kuutti,1996), and the resolving of conflicts are helpful in realizing extended learning activity design. That is to say, the conflicts in the activities are conducive for the learning object to do extended learning (Vygotsky,1978). Combining the theoretical model of third-generation activity theory and the classification of conflicts, BL design in Business English Listening and Speaking courses should consider the very basic activity system, that is the offline teaching system, which includes the internal conflicts like students' learning motivations, teaching resources, and the learning experience. What's more, the conflict between the basic activity system with the new activity system, that is the BL system is very obvious as well. Finally, the conflict between the basic activity system and the on-line SPOC system, like the integration with SPOC on-line tools with offline class teaching. The first two conflicts are the internal conflicts within the basic activity system, and the third conflict is the conflict between the basic activity system and the new activity system, the forth

conflict is the conflict in the integration of on-line and off-line teaching activities. These conflicts are dynamic due to the characteristics of the learning subjects. The learning subject continuously interact and compromise with the conflicts to develop and evolve further (Kuutti, 1996). The third-generation activity theory not only provide the theoretical bases for the design of blended teaching activities, but also provided the framework and guidance for blended teaching evaluation model construction and application.

2.3 PLS-SEM Formula

PLS-SEM is short for Partial Least Square-Structural Equation Modelling. PLS-SEM includes measurement scheme, modelling scheme, and the weighting scheme. And the two main categories of PLS-SEM are Reflective measurement and Informative measurement, as it is shown is Figure 1. Partial least squares (PLS) is an iterative estimation that combines principal component analysis with multiple regression. It is a causal modelling method, which is used in Sweden, the European Union and the United States. PLS method has many advantages: there is no distribution requirement, while LISEREL method, one of the other methods, assumes that the joint distribution of explicit variables is multivariate normal, and the goal is to predict according to the block structure, internal relationship, and causal prediction relationship. PLS estimation is consistent and basically consistent when the sample size is large and there are many explicit variables for each hidden variable.
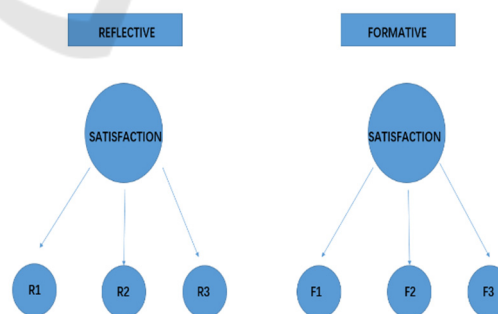

Figure 1: PLS-SEM Formula.

For Reflective measurement, it can be clearly seen that the latent variable Y causes items, which are expressed through indicators. For Informative measurement, it is obvious that the latent variable Y is caused by items, that is, the indicator forms the

latent variable. In fact, before 2010, the most commonly used method was CB-SEM, Covariance-based Structural Equation Modelling based on Covariance, which was a typical confirmatory method. The advantage of the model is used to determine whether the researcher result is consistent with the actual data. PLS-SEM evaluates the parameters based on the variance of the data. It focuses on what are the exogenous variables that affect the dependent variable. Thus, what are the Xs that affect Y. PLS-SEM focuses on multiple X explaining their respective Y (multiple Y), that is, multiple indicators explaining a single X, and how multiple X affects Y.

$$x = \Lambda_x \xi + \delta$$
$$y = \Lambda_y \eta + \varepsilon \quad (1)$$

In the above measurement equation, it describes the relation between variables and indicators, like the BL influential factors and the mediation tools in the teaching process. And X is the exogenous variable. Y is the endogenous variable. The measurement equation model is to study the relationship between the variables like the satisfaction rate and the credibility of the certain items. The equation model sets the potential rules and inter connections between different variables and the influential items.

3 EVALUATION MODEL CONSTRUCTION

3.1 BL Framework of Business English Speaking and Listening Course

The SPOC based BL model for Business English Listening and Speaking courses is to adopt and combine unit topic related SPOCs into the pre-class, in-class and after-class teaching procedures. SPOCs can be used as lead-in learning materials for students to learn about the unit topics. Also SPOCs are very important in the difficult and important knowledge points teaching, as they can provide basic concept explanations with varied examples and business cases combined. SPOCs can also be used in after-class course review and course assignment. We provide business case study materials and case analysis requirements for the students. SPOC is a good way to present business cases to the students after class through varied blended learning platforms, like Blue Ink Cloud Class, Rain Class and others. By using

SPOCs in their blended learning process, students can better their self-study before class and get prepared. They can internalize the knowledge in class and consolidate the knowledge after class (Zheng, 2019). In this way, SPOC is in every phase of the course learning and its flexibility can greatly promote independent learning online and offline.

Before class, teachers determine the teaching objectives and teaching contents according to the course requirement. Teachers need to prepare teaching materials for the course including PPTs, micro lectures, and other video and audio files, and publish them on blended learning platforms for students to do pre-class self-learning and get prepared for the class. Students need to preview micro lectures for the unit key points which are about listening strategies and then finish the basic and challenging exercises for the micro lectures. Also students need to preview the micro lectures for the unit difficult points which are about business communication skills and then upload the oral discussion group work to Blue Ink Cloud Class. Thirdly, students need to preview the Business Background Information part of the textbook. Supplementary micro lectures are also provided for students to watch and learn. Unit Study Guide and Unit Resource Usage Guide are also available for students' pre-class self-study usage. Students can enter the SPOC teaching platform to learn related relevant expanded contents to the unit topic and complete the online discussion and self-check activities. In class, teachers check and monitor students online learning process through Q&A session, group discussion and pair work. Teachers design various forms of classroom activities such as role-plays, case analysis, presentations, listening and dubbing tests and other offline activities to improve the interaction with students. More importantly, teachers must play the role as the scaffolder to give students timely feedback and comment according to the students in-class performance so that students can find their weaknesses and make rectified plans to complete the tasks better and make progress. Finally, teachers need to summarize and evaluate classroom teaching activities and review the key and difficult points. After class, students can access the after-class assignment and learning materials on the blended learning platform as well. The after-class study tasks mainly include oral debates and discussion oral work related to the business communication skills of the unit and the basic listening exercises, which are compulsory. The optional study tasks are the extra business case studies and the TED listening and speaking practices. The course blended learning model is shown in Figure 2.
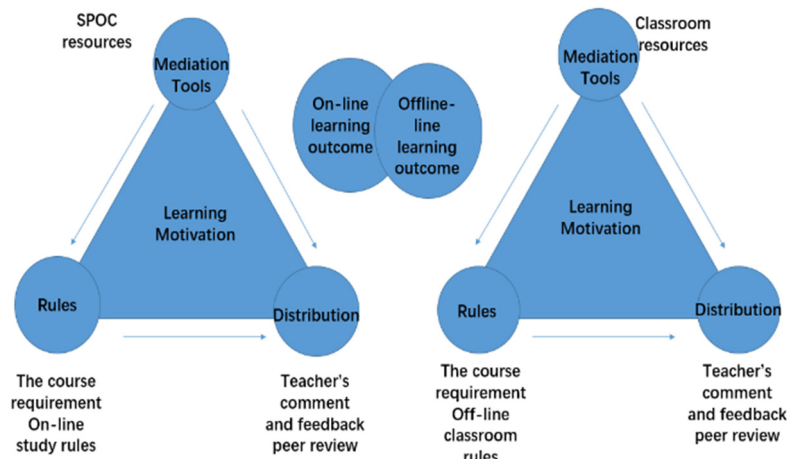
Figure 2: Blended teaching framework based on the third-generation activity theory

As it is shown in Figure 2, the SPOC teaching activity system includes the students learning motivation, the online learning effect, which, SPOC resources, and the course requirements, together with the teacher and student collaboration and the work distribution factors. What's more, how the students use the resources, whether the students obey the rules, and whether the students can finish the online study tasks are all critical factors in evaluating the realization of the course objectives in Business English Listening and Speaking courses. And on the left, it is the off-line teaching activity system. The mediation tools include the textbooks, the course resources and the related class activities, together with the classroom rules and regulations, the group work division, and the teacher's feedback are all very important in the internalization of the course input. Only through combining the off-line teaching with online teaching and deepening its integration, the utmost learning outcome can be achieved. BL design in Business English Listening and Speaking courses can promote the integration of on-line and off-line teaching effectively. Teachers served as mentors and guidance providers in the teaching process. The students are the subjects. SPOC resources and off-line teaching resources served as mediation tools. The on-line and off-line classroom rules, the work distribution, and the interaction and collaboration all

work together to realize the teaching objectives of the course.

3.2 The Bl Activities Evaluation Model Design

Based on the third-generation activity theory and BL of the Business English Listening and Speaking course, and referring to the existing research results by previous scholars, the study designed the following evaluation model to evaluate the teaching effects and effectiveness of the Business English Listening and Speaking course BL teaching. The evaluation model considers the course related item including the students' learning motivation, teaching resources, the course assessment, and the on-line /off-line classroom rules. All the factors are set according to the third-generation theory, including, the subject, the mediation tools, the object, and the rules. And the specific evaluation perspectives are set in details according to course settings, including 6 factors. The evaluation model includes open questions to get the students comment and feedback on on-line and off-line teaching effects. The corresponding evaluation model setting with all the relating factors are as follows:

Table 1: Business English Listening and Speaking course blended teaching evaluation model.

Activity Factor	BL Learning Elements	Evaluation Content
Subject	Learning Motivation	Based on the knowledge of the Business English Listening and Speaking Course
Mediation Tools	SPOC Resources	Based on the variety, quality and relevance of the SPOC resources
	Classroom Resources	Based on the text material and classroom quality and the interaction with SPOC resources

Object	Learning Outcome	Based on the satisfaction of business knowledge, Listening strategy application, and oral communication ability
	Evaluation Rules	Based on the requirements of online and offline rules and its relevance
Rules	On-line Study Rules	To obey the on-line learning rules and the blended learning platform usage data
	Off-line Study Rules	To obey the off-line classroom rules and the involvement and completion of classroom tasks
Feedback	On-line Feedback	Based on teachers on-line comment and feedback effect
	Off-line Feedback	Based on teachers off-line comment and feedback effect

3.3 Data Collection

The study was done through Sojump online survey tool. It is used as part of the course on-line test platform as well. The sample covers all together 135 Business English major students who are currently taking the course, and the survey was done three times respectively at the beginning of the term, the middle of the term, and the end of the term. The survey was designed covering all the activity factors as discussed above, and all together 27 questions were asked regarding the students learning motivation, the resource using experience, and the on-line and off-line task feedback, and etc. The study of the learning outcomes covered the three aspects of business English learning, including the listening comprehension ability, the oral communication ability in business environment, and also the ability to involve and participate in certain business occasions with cross-cultural backgrounds.

4 RESULTS AND DISCUSSION

4.1 Evaluation Model to Solve the Blended Teaching Conflicts

The driving power in the evaluation model design is to solve the possible conflicts in the BL teaching process of Business English Listening and Speaking courses. And the ultimate goal is to improve the overall learning effect of the course. Firstly, the students' learning motivation is the most important factor when considering students' learning outcomes. Only through the promotion of students' learning outcomes, the learning effects can be improved greatly. Teachers can do research on the students' learning motivations, and try to understand its variety and characteristics. After sufficient research, teachers can analyse the existing problems and weak points in the learning motivation, and set personalized study plans to effectively improve students learning

motivation. Secondly, the mediation tools, which are the on-line and off-line teaching resources, are the most important mediation tools between the study subject and the object. Thus, in the process of course teaching, students use SPOC and off-line learning resources available to realize the internalization of the course input, the listening strategy, business knowledge, and the oral communication ability in the business context. In this whole process, teachers should focus on the teaching resources and teaching activity design, to make sure the natural integration of the on-line and off-line content. Only in this way, the course intended input can be reconstructed, so as to realize the transition from knowledge learning to skills application. Thirdly, the rules and work division in the class activity setting are important to control and supervise the whole process of class activity implementation. In the Business English Listening and Speaking course teaching, teachers should focus on the unified goals of both on-line and off-line teaching. Also teachers should set measurable and realizable teaching objectives. The coherence between online and offline teaching is also very important, as BL is not about multiple teaching goals nor teaching methods, it is the integration of on-line and off-line teaching that really matters in the teaching process.

4.2 Data Analysis

Based on the evaluation model we have constructed, we set all the components and factors that are included in the model as F, standing for different factors. In the SPOC on-line activity system, students' study motivation is heavily influenced by the Quality of SPOC Resources, that is F1. Also the Obedience of On-line Study Rules(F2) is also an important factor effecting the students' learning motivation. And at the same time, F1 and F2 influence greatly on F8(Students Learning Effect). And between these two factors, the former influences the latter as well, that is to say the students' attitude towards the SPOC resources highly impact their

obedience of the on-line study rules. In the offline teaching activity system, Students Learning Effect are influenced by F3 (Off-line Study Attitude) and F4 (Obedience of Classroom Rules). And at the same time, F3 and F4 influence greatly on F8(Students Learning Effect). And likewise, the students' attitude towards the off-line classroom teaching materials influences the indicators in the obedience of the classroom rules. Last but not least, the teachers' mediation during the whole process plays an important role, as can be seen from the indicator F5(On-line Feedback) and F6(Off-line Feedback). On-line and off-line feedback both influences the F8(Students Learning Effect). And we can see from the below table that the off-line feedback is more effective, or to say more impactful.
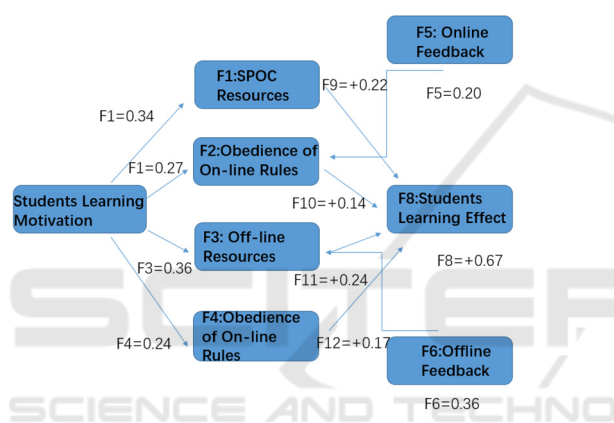

Figure 3: Blended teaching effect evaluation model.

Using the PLS-SEM formula to do the data calculation, we found that we set each factor with 3-4 relevant survey questions. The credibility of this setting is among 0.6-0.8. And the corresponding influencing factor has certain differentiability with other factors question setting. Also the credibility for each question is above 0.07, and it is an indicator to show that the questions and the factors are well set and has great corresponding relations. As it is shown in Figure 3, in the upper part, it shows the interrelations in the on-line SPOC activity system. We can see that the students learning motivation has positive impact on the students' attitude towards the SPOC resources(F1=0.34). Also the study motivation influences the obedience of online rules (F2=0.27). It is also a positive influence. All together, the overall influence on the students learning effect is great (F8=0.67) In the lower part, we can see the interrelations between students learning motivation and its relation with the off-line classroom resources. It has obvious positive impact as we the indicator

F3=0.36, which is little bit higher than the indicator between online resources. The same rules go with the correlation with the obedience of the offline classroom rules (F4=0.24). Both the off-line classroom resources and the obedience of on-line rules account for the overall students learning effects. The on-line and off-line feedback provided by teachers and peers also has positive influence on the overall learning effects, as it is indicated F5=0.20 and F6=0.36. We can conclude that the mediation on the above factors are quite obvious and has positive relations.

5 CONCLUSION

Based on the third-generation of activity theory, take the evaluation model of Business English Listening and Speaking courses blended teaching model as an example, the paper discussed the possible and potential conflicts in the BL process, and to extend the current understanding of BL practice. And the study has its limitations, as the evaluation model is set from the prospective of students only, not considering the perspective of teachers and other aspects. Also the evaluation model didn't include all the evaluation factors like the students' personal interest and the complexity of the teaching resources. Hopefully, in the future, the current model can be constantly improved through the future rounds of teaching and this teaching model can shine some light on the other coursed blended teaching design.

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