

A Study of Business English (ESP) Learning Anxiety from the Perspective of Ecology

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Abstract—Business English (BE) language characteristics and many classroom teaching factors contribute to the anxiety of BE learning. The ecology can be put in use into BE teaching to make the ecological classroom. This research is taken to show relations between the ecological classroom teaching of BE (BEECT) and BE learning anxiety (BELA). The findings are as followed: (1) BEECT is in good order and students' BELA is to the intermediate degree; (2) BELA has the generally negative correlation to students' general English proficiency; (3) BEECT has the higher negative correlation to BELA, and they are significantly linearly dependent; (4) as to BELA, significant statistical differences exist between high score group and low score group in the classroom learning efficiency, the teacher-student affective intercommunication, and student-student intercommunication. In order to lower BELA, BE teachers are suggested cultivating learners' academic English proficiency, strengthening learners' ambiguity tolerance, and using ecologically multimodal discourses.

Keywords—ESP; Business English; ecology; Ecological Classroom; Learning Anxiety

I. RESEARCH BACKGROUND

Business English is a branch of English for Specific Purposes (ESP). At present, in China, English for General Purposes (EGP) and ESP coexist in college English teaching system (Wen, 2014: 1-8). To establish a diversified, characterized, personalized and localized college English curriculum system based on comprehensive English, with ESP as the main development direction of diversification, accords with the training objective of multilayer talents, in line with the actual conditions of foreign language education, and with the urgent needs of social, economic, and cultural development (Ding & Dai, 2013: 17-23).

During the development history of linguistics, it has a close relation with philosophy, psychology and natural science and social science, etc.

Following the structuralism, behaviorism, cognitive psychology and constructivism theories, ecological linguistics, also known as the ecology of language, emerges as a new linguistic school, integrating research results of ecology and linguistics (Wang & Jia, 2011:3-6). Ecological theories have had a profound impact on the language teaching (Wu, 2011: 111-122), emphasizing the interactive

process of the learners' knowledge and experience with the outside world (Wang & Jia, 2011:3-6).

In the 21st century, the ecological classroom teaching of foreign languages has gradually been approved and it is conducive to maintaining the exuberant vitality of foreign language classroom teaching (Wang & Jia, 2011:3-6). The ecological classroom teaching promotes students' learning motivation (Leather & Dam, 2003), and conforms to the students' individual needs and is agreeable with teachers and students (Guo Jianjing, 2013: 99-106). The ecologicalized teaching environment is a direction of the development of the foreign language teaching (Chen & Gu, 2008: 3-8). Likewise, ESP teaching environment should be ecological (Gu, 2012: 47-59).

II. LITERATURE REVIEW OF THE ECOLOGICAL CLASSROOM TEACHING OF BUSINESS ENGLISH (BEECT) AND BUSINESS ENGLISH LEARNING ANXIETY (BELA)

A. Ecological Classroom Teaching of Business English (BEECT)

ESP is a subsystem of language ecology system, in which professionalism is characteristic of ESP ecosystem, the communicative nature reflects the dependence on the environment, and learners' needs embody the ecological subjects (Wu, 2014: 283-284).

With the perspective of ecology in foreign language teaching, it is based on the principle of ecology to investigate the interaction and co-adaptation between internal elements of the teaching system and the surrounding environment, to study various teaching phenomena, such as imbalance phenomenon, and their causes, and to probe into the features and functions of foreign language teaching ecology and its basic law of evolution and development (Chen, 2010). In this way, BEECT is a special kind of ecology, and it has unique ecological subjects (Business English teachers and learners), with the interaction and interrelation of teachers, learners and classroom environments into the organic whole. BEECT is in the harmonious atmosphere and multi-dimensional interaction, respects differences, and is full of competition and cooperation.

B. Business English Learning Anxiety (BELA)

Horwitz et al. (1986:128) defined foreign language anxiety is as "a distinct complex of self-perceptions, beliefs,

feelings, and behaviors related to classroom language learning arising from the uniqueness of the language learning process”.

According to their foreign language classroom anxiety scale (FLCAS), business English learning anxiety is associated with communication apprehension (item 1,3,4,9,13,14,18,20,24,27,29,33), test anxiety(item 8,10,21), fear of negative evaluation (item 2,7,15,19,23,31), and general fear of BE classes (item 5,6,11,12,16,17,22,25,26,28,30,32).

BE, as one variety of ESP, has its special linguistic features. There are a large number of technical terms in BE which have accurate but relatively narrow meanings different from those in EGP. What is more, BE vocabularies are characterized by nominalization. Learners may be unfamiliar with old words and uncertain of new words. Moreover, hedges are used in BE communications based on theories of conversational implicature, co-operative principles and politeness principles. These features may directly lead to learners' anxiety, and cause mental tension or fear, which influence and hinder ESP learning (Shi, 2014: 141-143). These features also bring in tolerance of ambiguity of language (TAL), which, as an important factor of individual difference, also affects learners' BE learning proficiency. As Lei (2011) pointed out, during the process of learning, the learners may confront a lot of ambiguous, unfamiliar or uncertain situations. Learners with different level of TAL may have different attitudes. Learners who have higher level of TAL tend to cope with the ambiguities more easily and they can achieve a better performance in language learning. While learners with lower level of TAL may feel nervous or anxious when they are confronting ambiguities, and they are tend to have poorer performance in language learning. TAL is also true of the process of BE learning. TAL has a negative correlation with BE learning anxiety. Generally speaking, the higher the level of TAL is, the lower the level of anxiety is.

III. METHODOLOGY

Chinese scholars carried out some researches on ESP learning anxiety. Huang & Zou (2010: 166-167) made an investigation about the anxiety in learning English for geographic information system (GIS). Gao et al. (2010: 138-140) and Shi (2012: 225) studied medical English learning anxiety. Sun & Wang (2013: 90-91) explored the anxiety in ESP oral expression. Shi (2014: 141-143) gave a comparative study of the anxiety between ESP and EGP learning. On their bases, this study, from a new perspective, is to discuss the BE learning anxiety in the ecological environment of classroom. It is guided by the following research questions.

- 1) *To what extent are BEECT and students' BELA in BEECT?*
- 2) *What are the relationships between BEECT factors and BELA?*
- 3) *How different is BELA behaved by students in high score group (HSG) from those in low score group (LSG)?*

A. Subjects and Instruments

In June 2015, a sample of 60 junior students of Business English major from East China Institute of Technology, participated in the study. They were asked to complete the Business English Learning Anxiety Scale (BELAS) and the Questionnaire of Ecological Classroom Teaching of BE (QBEECT). 60 students' data were effectively adopted for statistical analysis. BELAS is adapted on the basis of Horwitz's FLCAS. QBEECT is based on the questionnaire of ecological environment of College English teaching (Chen& Shan, 2008: 96-100). The students are asked to show their opinions in terms of a five-point scale:

- 1= “This statement is almost never true of me”
- 2= “This statement is usually not true of me”
- 3= “This statement is sometimes true of me”
- 4= “This statement is usually true of me”
- 5= “This statement is almost always true of me”

Student's TEM4 scores are used as the examination of their general English proficiency.

B. Data Analysis

All the data were computerized by means of SPSS13.0. Internal consistence reliability was calculated for the instruments. The overall Cronbach's alpha reliability for BELAS was 0.933, and QBEECT 0.871, which showed the reliability of the questionnaires convincingly (See Table I).

TABLE I. DETAILS OF QUESTIONNAIRES

| Questionnaires | Factors | Amount | Cronbach Alpha |
|----------------|---|--------|----------------|
| BELAS | Communication apprehension (CA) | 12 | 0.933 |
| | Fear of negative evaluation (FNE) | 6 | |
| | Test anxiety (TA) | 3 | |
| | General fear of BE classes (GA) | 12 | |
| QBEECT | Classroom learning efficiency (CLE) | 5 | 0.871 |
| | Teacher-student interaction (TSI) | 7 | |
| | Student-student intercommunication (SSI) | 8 | |
| | Teacher-student affective intercommunication (TSAI) | 7 | |
| | Students' cognition of learning (SCL) | 2 | |

The quantitative analysis involved several statistical procedures:

1) Descriptive statistics were computed to summarize the students' responses to BEECT and BELA;

2) Pearson correlations analysis was conducted to examine the relationship between BELA and students' general English proficiency, and the relationship between BEECT and BELA; multiple regression analysis was used to determine the predictive power of BEECT over BELA;

3) Independent samples t-tests were carried out to check the differences between HSG (top 25% of subjects in BELA) and LSG (bottom 25% of subjects in BELA).

IV. RESULTS AND DISCUSSIONS

The questionnaires are the five-point Likert scale. The higher marks students score, the more frequently they behave. The frequency is divided into three levels—high (Mean Score 3.5-5.0), medium (Mean Score 2.5-3.4) and low (Mean Score 1.0-2.4) as the following Table II.

TABLE II. FREQUENCY SCALE

| Mean Score | Frequency | Degree |
|------------|-----------|---------------|
| 4.5-5.0 | High | Almost always |
| 3.5-4.4 | | Often |
| 2.5-3.4 | Medium | Sometimes |
| 1.5-2.4 | Low | Seldom |
| 1.0-1.4 | | Almost never |

The correlations between different variables are: positive correlation, negative correlation and zero/no correlation. Positive correlation indicates if variable A is increasing, variable B is increasing accordingly. Negative correlation means if variable A is increasing, variable B is decreasing. Zero or no correlation shows that no regularity can be drawn from the two variables. The degree of correlation is usually evaluated by Pearson Product Moment of Correlation Coefficient (r), which is between -1.0 to +1.0 as the following Table III shows. Generally, there are three kinds of levels (**P<0.01, * P<0.05) at which correlation is significant. ** P<0.001 or P=0.000 means there is only 0.1% error, which shows variable A is most

significantly correlated to variable B; ** P<0.01 or P=0.01 means there is only 1% error, which shows variable A is more significantly correlated to variable B; * P<0.05 or P=0.05 means there is only 5% error, which shows variable A is much significantly correlated to variable B; only if p value is less than 0.05, correlation coefficient (r) is statistically significant or meaningful.

TABLE III. PEARSON PRODUCT MOMENT OF CORRELATION COEFFICIENT (R)

| Correlation Coefficient (r) | Degree of Correlation |
|-----------------------------|--------------------------------|
| ±0.90 ~ ±1.0 | Highly significant |
| ±0.70 ~ ±0.90 | Obviously significant |
| ±0.40 ~ ±0.70 | Moderately significant |
| ±0.20 ~ ±0.40 | Generally significant |
| < ±0.20 | Lowly significant or ignorable |

A. Analysis of BEECT

1) Overall Frequency of BEECT

TABLE IV. BEECT VARIABLES

| BEECT factors | Mean |
|---|------|
| Students' cognition of learning(SCL) | 4.07 |
| Teacher-student affective intercommunication (TSAI) | 4.00 |
| Student-student intercommunication(SSI) | 3.44 |
| Teacher-student interaction(TSI) | 3.38 |
| Classroom learning efficiency (CLE) | 3.28 |

According to Table IV, in BE classroom, students have high-level cognition of learning; the affective intercourse between the teacher and students is to the high degree; the intercommunication among students, teacher-student interaction, and students' learning efficiency are at the medium level. In Table V, the factor about students' cognition of learning has little significant correlation with the other four factors among which there is moderately significant correlation to one another. Therefore, BEECT is in good condition.

TABLE V. CORRELATIONS BETWEEN BEECT FACTORS

| Correlations between BEECT Factors | | CLE | TSI | SSI | TSAI | SCL |
|------------------------------------|---------------------|-------|-------|-------|-------|-------|
| Overall BEECT | Pearson Correlation | 0.697 | 0.737 | 0.827 | 0.800 | 0.335 |
| | Sig. (2-tailed) | 0.000 | 0.000 | 0.000 | 0.000 | 0.009 |
| CLE | Pearson Correlation | 1 | 0.344 | 0.433 | 0.462 | 0.157 |
| | Sig. (2-tailed) | | 0.007 | 0.001 | 0.000 | 0.232 |
| TSI | Pearson Correlation | 0.344 | 1 | 0.522 | 0.458 | 0.180 |
| | Sig. (2-tailed) | 0.007 | | 0.000 | 0.000 | 0.169 |
| SSI | Pearson Correlation | 0.433 | 0.522 | 1 | 0.524 | 0.169 |
| | Sig. (2-tailed) | 0.001 | 0.000 | | 0.000 | 0.197 |
| TSAI | Pearson Correlation | 0.462 | 0.458 | 0.524 | 1 | 0.255 |
| | Sig. (2-tailed) | 0.000 | 0.000 | 0.000 | | 0.050 |
| SCL | Pearson Correlation | 0.157 | 0.180 | 0.169 | 0.255 | 1 |
| | Sig. (2-tailed) | 0.232 | 0.169 | 0.197 | 0.050 | |

To be specific and prominent, concerning SCL, students have highly recognized that only if passively learning is transformed into initiatively learning, they would achieve the life-long learning capability.

As for TSAI, the teacher has the strong love and patience of students, maintains the surrounding with peace and friendship with students, gives good care to students, fully respects students, and stimulates students' interest in learning. Besides, the teacher often communicates with students after class, such as how to conduct oneself, and students get useful advice and help. Therefore, the harmonious relationship between the teacher and students is highly better established.

In regard to SSI, students are more likely to cherish the time and opportunities communication of business English knowledge. In TSI, the teacher seldom buckets knowledge. Instead, in BE classroom, the group discussion is regularly carried out, in which whether students' learning achievement is good or not, all students are treated equally without partiality, and offered the similar opportunity to perform. The teacher-student cooperation degree is higher, and the

classroom atmosphere is favorable and harmonious. In CLE, students are usually willing to learn BE autonomously, feel little anxious, participate in the classroom activities and master the content of BE course.

B. Analysis of BELA

1) Analysis of BELA Variables

The total score of 33 items of BELAS is the anxiety index from 33 to 165, with higher scores indicating more anxiety.

In terms of "Table VI" and "Fig. 1", CA, FNE, TA, and GA are all to the moderate degree. The overall anxiety is to the same degree, basically presenting the normal distribution.

On the basis of "Table VII", CA, FNE, TA, and GA are positively significantly correlated with the overall anxiety ($r>0.7, p<0.01$), and so is the correlations between BELA four variables ($r>0.6, p<0.01$), among which the correlation between CA and FNE is obviously significant ($r>0.7, p<0.01$).

TABLE VI. BELA VARIABLES

| Anxiety score | Overall anxiety (OA) | Communication apprehension (CA) | Fear of negative evaluation (FNE) | Test anxiety (TA) | General fear (GA) |
|---------------|----------------------|---------------------------------|-----------------------------------|-------------------|-------------------|
| Mean | 92.27 | 33.97 | 15.87 | 8.35 | 34.08 |
| Minimum | 50.00 | 17.00 | 6.00 | 4.00 | 17.00 |
| Maximum | 142.00 | 52.00 | 27.00 | 14.00 | 58.00 |

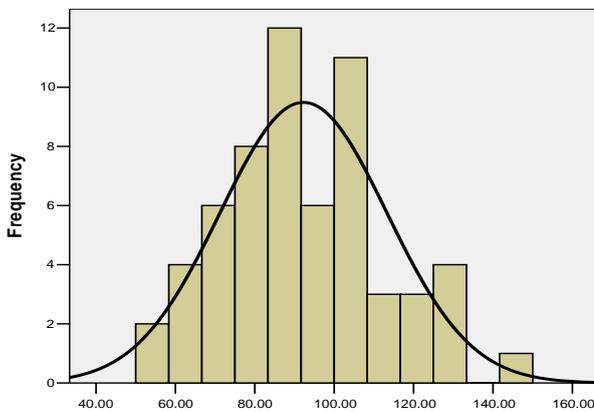


Fig. 1. Histogram for BELA

Generally speaking, the relationship between anxiety degree and learning efficiency is presented by inverted "U" curve. Namely, both high and low anxiety degree will reduce learning efficiency, while only medium degree can lead to the highest level of learning efficiency. A harmonious learning atmosphere can stimulate more facilitating anxiety and decrease debilitating anxiety, the former of which can promote the language learning course and the latter inhibit it (Ellis, 1994:34-35).

In general fear of BE classes, it wouldn't bother the students at all to take more BE classes and they feel at ease and acceptable in learning professional vocabulary, grammar

and passages in BE. All they feel on their way to BE is very sure and relaxed.

In the respect of communication apprehension, without trembling, Students have great confidence in speaking in English in BE classes, which indicates strong control in their own psychology. Sometimes, students are panic and nervous in answering questions, which only indicates their concerns to the knowledge and is beneficial to their further thinking and exploration.

TABLE VII. CORRELATIONS BETWEEN BELA VARIABLES

| BELA Variables | | OA | CA | FNE | TA | GA |
|----------------|---------------------|-------|-------|-------|-------|-------|
| OA | Pearson Correlation | 1 | 0.925 | 0.885 | 0.742 | 0.913 |
| | Sig. (2-tailed) | | 0.000 | 0.000 | 0.000 | 0.000 |
| CA | Pearson Correlation | 0.925 | 1 | 0.786 | 0.606 | 0.741 |
| | Sig. (2-tailed) | 0.000 | | 0.000 | 0.000 | 0.000 |
| FNE | Pearson Correlation | 0.885 | 0.786 | 1 | 0.664 | 0.719 |
| | Sig. (2-tailed) | 0.000 | 0.000 | | 0.000 | 0.000 |
| TA | Pearson Correlation | 0.742 | 0.606 | 0.664 | 1 | 0.637 |
| | Sig. (2-tailed) | 0.000 | 0.000 | 0.000 | | 0.000 |
| GA | Pearson Correlation | 0.913 | 0.741 | 0.719 | 0.637 | 1 |
| | Sig. (2-tailed) | 0.000 | 0.000 | 0.000 | 0.000 | |

In the respect of negative evaluation, students don't worry about being laughed at by others, when discussing business knowledge in English. By contrary, it is the point of admiration, as fluency in speaking English is symbolic of education and self-cultivation and the concrete infestation of learning strategies. Meanwhile, ecological classroom environment also requires mutual respect between teachers and students. Sometimes, When the BE teacher correct their mistakes in English, the students will feel troubled, but rarely frightened. Trouble will make the learner to take their utmost effort to understand the English correction, which is in favor of BE learning. As for the teachers, they should correct students' mistakes properly with the purpose of making themselves understood by every possible means, in bilingual teaching, if necessary.

In the respect of test anxiety, students are usually worried about their failing in BE courses, which has close relationship with their graduation certificate. Diploma strategy is the most intense and unavoidable phenomenon among college students, which reflects the lowest level of safety needs and higher needs. The test anxiety is the temporary response to curriculum evaluation and not specific to the foreign language teaching. In practice, both the student and teachers should first try their best to meet the students' lower level need in safety; Then teachers should raise their professional ethics and competence and students promote their inner learning motivation so as to form facilitating anxiety, build harmonious teacher-student relationship, and promote classroom teaching quality. Finally, the students can realize their individual and social value by sublimating the lower level of needs to the higher level of personal realization.

2) *The relationship between EGP proficiency and BELA*

Based on Table VIII, students' EGP proficiency (represented by TEM4 Score) and BELA are generally negatively correlated ($r=-0.25, p=0.05$), which shows that the more proficient students' EGP is, the lower the anxiety is during students' learning BE. The two variables---FNE ($r=-0.35, p=0.01$) and TA ($r=-0.36, p=0.01$) are also generally negatively correlated to students' EGP proficiency. Specifically, the more proficient students' EGP is, the less degree of their FNE and TA in BE classroom.

The empirical study of Kong (2012: 74-78) indicates that EGP teaching and ESP teaching should be necessarily integrated, on account of the coordination relation between EGP and ESP that are different components of one linguistic continuum. ESP knowledge acquisition is attributed to students' continuous processing of the implicit learning of EGP. The synergistic effect of the implicit and explicit learning is the important prerequisite to the improvement of ESP course teaching quality, which is the reason why EGP is attached great importance to in BE teaching. EGP is favorable for students to enhance the capacity of self-monitoring and self-repair on the input and output of BE knowledge, and to heighten the accuracy and appropriacy of BE knowledge application, accompanied by the consolidation of EGP.

TABLE VIII. CORRELATIONS BETWEEN BELA VARIABLES AND TEM4 SCORE

| BELA Variables | | TEM4 score |
|----------------|---------------------|------------|
| OA | Pearson Correlation | -0.25 |
| | Sig. (2-tailed) | 0.05 |
| CA | Pearson Correlation | -0.17 |
| | Sig. (2-tailed) | 0.12 |
| FNE | Pearson Correlation | -0.35 |
| | Sig. (2-tailed) | 0.01 |
| TA | Pearson Correlation | -0.36 |
| | Sig. (2-tailed) | 0.01 |
| GA | Pearson Correlation | -0.18 |
| | Sig. (2-tailed) | 0.17 |

C. *The analysis of relationship between BEECT factors and BELA variables*

1) *The correlation and multiple regression analysis*

Referred to Table IX the overall condition of BEECT is negatively significantly correlated with BELA ($r=-0.511, p=0.000$). The better BEECT environment is, the lower students' BELA is, so are CA ($r=-0.443, p=0.000$), FNE ($r=-0.413, p=0.001$), TA ($r=-0.366, p=0.004$), and GA ($r=-0.522, p=0.000$). In particular, the factors of CLE ($p=0.000$) and TSAI ($p=0.001$) have the negatively significant correlation with BELA and its variables. CLE and TSAI contribute to reducing the anxiety. The factor of SSI ($p=0.003$) is simply negatively correlated with GA variable, with other BELA variables at the level of little significance.

In general, when communication or interaction between students does not go well, CA or FNE will come into being. On the contrary, if it is smooth, the degree of CA or FNE will be decreased. SSI is concerned with classroom activities, and has no direct relation to the test. The above discussion also accounts for the little significant correlation of TSI to BELA variables. In addition, TSI might bring in the pressure and anxiety especially in communicating the BE specialized or complicated knowledge, or in Q&A (questions and answers) activities.

TABLE IX. CORRELATIONS BETWEEN BEECT FACTORS AND BELA VARIABLES

| BEECT Factors and BELA Variables | | Overall anxiety | CA | FNE | TA | GA |
|----------------------------------|---------------------|-----------------|--------|--------|--------|--------|
| Overall BEECT | Pearson Correlation | -0.511 | -0.443 | -0.413 | -0.366 | -0.522 |
| | Sig. (2-tailed) | 0.000 | 0.000 | 0.001 | 0.004 | 0.000 |
| CLE | Pearson Correlation | -0.716 | -0.624 | -0.597 | -0.561 | -0.705 |
| | Sig. (2-tailed) | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| TSI | Pearson Correlation | -0.191 | -0.188 | -0.076 | -0.039 | -0.241 |
| | Sig. (2-tailed) | 0.144 | 0.149 | 0.566 | 0.766 | 0.063 |
| SSI | Pearson Correlation | -0.319 | -0.246 | -0.218 | -0.246 | -0.374 |
| | Sig. (2-tailed) | 0.013 | 0.058 | 0.095 | 0.059 | 0.003 |
| TSAI | Pearson Correlation | -0.404 | -0.374 | -0.413 | -0.297 | -0.338 |
| | Sig. (2-tailed) | 0.001 | 0.003 | 0.001 | 0.021 | 0.008 |
| SCL | Pearson Correlation | -0.120 | -0.062 | -0.137 | -0.140 | -0.128 |
| | Sig. (2-tailed) | 0.361 | 0.635 | 0.297 | 0.287 | 0.330 |

In order to get further relationships between BEECT and BELA, multiple regression analysis is necessary to be used to determine to what extent BEECT (independent variables) predict BELA (dependent variable).

In Table X, Enter method is adopted for this multiple regression analysis to find out the predictive power of every factor of BEECT over BELA.

Multiple R=0.727 indicates that the multiple correlation coefficient between BEECT and BELA is at obviously significant level. R Square=0.528 means that the overall BEECT can account for 52.8% of variance in BELA, which shows that BELA is determined by BEECT to 52.8% extent. Sig. F=0.000, namely, P<0.001 reports that the overall BEECT can significantly interpret and predict BELA.

About the five predictors in Table10, Beta value means the predictive power of each independent variable. The bigger absolute Beta value of the independent variable is the stronger predictive power the independent variable has over the dependent variable. Beta value can be positive or negative. Beta value can be positive or negative. Positive Beta value means positive predictive power that the better BEECT is, the more likely BELA is, while negative Beta value means the better BEECT is, the less likely BELA is. The t- value is used to determine the relative importance of each independent variable; if t-value of an independent variable is more than 2 or less than -2, namely, t>2 or t<-2, the independent variable will be a useful or significant predictive variable; if p-value is less than 0.05, namely, P<0.05, the multiple correlation coefficient is at the significant level.

As shown in Table 10, in the five independent variables, only CLE (Beta=-0.69, t= -6.304, p=0.000) has negatively significantly predictive power over BELA. The more efficiently students learn BE, the less BELA students can produce; other four predictor are not statistically significant.

TABLE X. FIVE FACTORS OF BEECT PREDICTING BELA

| Dependent Variable | Multiple R | R Square | F-value | Sig.F |
|---|------------|----------|---------|-------|
| BELA | 0.727a | 0.528 | 12.089 | 0.000 |
| Predictors: Five Independent Variables of BEECT | | | | |
| Independent variables | Beta | t | Sig. | |
| CLE | -0.690 | -6.304 | 0.000 | |
| TSI | 0.111 | 0.977 | 0.333 | |
| SSI | -0.010 | -0.079 | 0.937 | |
| TSAI | -0.132 | -1.100 | 0.276 | |
| SCL | 0.003 | 0.033 | 0.974 | |

2) T-tests of Differences between HSG and LSG

Independent samples t-tests are adopted to find out the differences between HSG (top 25% of subjects in BELA) and LSG (bottom 25% of subjects in BELA) in BEECT.

As Table XI reports, in BEECT, there are significant differences between HSG and LSG of BELA, especially in CLE (p=0.000), TSAI (p=0.007), and SSI (p=0.011), which means LSG behave better than HSG in CLE, TSAI, and SSI. The bigger difference is CLE. The differences of TSI and SCL are not at the statistically significant level in that whether the degree of BELA is high or low, in BEECT, all students pay attention to the interaction with the teacher and realize the importance of initiative in BE learning.

The distinct characteristics LSG in this study are listed as follows:

- a) LSG are able to master BE teaching content more effectively.
- b) LSG are more active in participating in BE teaching activities and answering questions.

c) LSG have little sense of anxiety in BEECT.

d) LSG are more likely to assist the teacher in building a harmonious classroom and optimizing classroom teaching.

e) LSG are more generous and confident in communicating with classmates.

f) LSG are more inclined to keep the harmonious relationship with the teacher, and more willing to have heart-to-heart talks with the teacher, and gain valuable guidance.

TABLE XI. T-TESTS OF DIFFERENCES BETWEEN HSG AND LSG OF BELA IN BEECT

| Independent variables | Group | Mean | Mean Difference | Std. Error Mean | Sig. (2-tailed) |
|-----------------------|-------------|-------|-----------------|-----------------|-----------------|
| Overall BEECT | HSG of BELA | 3.265 | -0.578 | 0.126 | 0.000 |
| | LSG of BELA | 3.843 | | | |
| CLE | HSG of BELA | 2.750 | -1.113 | 0.172 | 0.000 |
| | LSG of BELA | 3.863 | | | |
| TSI | HSG of BELA | 3.170 | -0.357 | 0.180 | 0.056 |
| | LSG of BELA | 3.527 | | | |
| SSI | HSG of BELA | 3.094 | -0.500 | 0.184 | 0.011 |
| | LSG of BELA | 3.594 | | | |
| TSAI | HSG of BELA | 3.732 | -0.580 | 0.199 | 0.007 |
| | LSG of BELA | 4.313 | | | |
| SCL | HSG of BELA | 3.938 | -0.313 | 0.193 | 0.116 |
| | LSG of BELA | 4.250 | | | |

V. ENLIGHTENMENT ON BE TEACHING

A. Cultivating Learners' Academic English Proficiency

Currently, ESP teaching is carried out in a relatively closed teaching ecology. Without new energy of information, Teaching is usually restricted to the exchange among teachers, teaching materials and students. Learners are good at book knowledge, but they are panic and unaccustomed to the new working circumstances (Kang & Zhen, 2013: 179-180). Therefore, BE teaching should first foster learners' academic English ability. Cai (2012: 30-35) analyzes the academic needs for English courses, believing that, with the internationalization of Higher Education, learners are crying for academic English, which is the basic communicating medium in professional learning, the common lingual-core for interdisciplinary study, and the true fundamental course

serving for professional learning. He also considers the academic English as the sublimated foreign language teaching, advocating the guidance from learner's personal need for foreign language ability to the national level, since what most of the college students need is the ability to communicate academically in English and consult professional literature (Cai, 2014: 3-8).

In order to make the learner communicate successfully with English in business circumstances, teachers should first foster learner's academic English ability. With the content-based approach, teachers can teach the business knowledge with the assistance of the really language material. They can compile the BE teaching material in accordance of Chinese learners and cover all the aspects of language specifications, business knowledge and academic competence training. The Teaching activity design should take learner's linguistic ability, knowledge level and thinking ability into consideration. Linguistic knowledge includes academic vocabulary, syntax and discourse structure; the academic ability training contains all the abilities---listening, speaking, reading and writing---related with academic events.

In BE teaching activities, teachers should also give consideration to the basic components of the EGP language, enhancing learner's fundamental linguistic knowledge and skills. They should also process the EGP resources selectively, paying attention to the consistency between the external linguistic output of BE and internal knowledge of EGP. The unconsciousness of implicit learning is beneficial to BE teaching, stimulating the consciousness privilege of explicit learning, strengthening the learning strategy and reducing learning anxiety so as to enlarge the effect of explicit learning and make the language and skills specialized.

B. Strengthening Learners' Ambiguity Tolerance

Unfamiliar, vague and complicated linguistic phenomena will result in learner's different feedback and influence their learning outcome (Zhang, 2004: 457-461). Therefore, in the course of BE learning, learners should first clarify the definition of ambiguity tolerance and its application with the assistance of teachers. The teachers should also intervene and regulate emotionally the learners with high or low level of ambiguity tolerance. Comparing with Learners with low level of ambiguity tolerance, learners with high level of ambiguity tolerance are weak in learning anxiety and strong in control and innovation, and they usually succeed in linguistic missions (Wang & Zhang, 2012: 324-325). Teachers should be tolerant to the learner's mistakes to certain degree and make proper correction to those repeated errors. Zhang (2012: 89-95) believes that intolerance will lead to excessive correction and aggravate the learning anxiety, which is bad for the stimulation on learning strategies, founding correct attitude towards the linguistic ambiguity, and failure in linguistic attempts and speculation.

In addition, teachers should also foster learners ambiguity tolerance in the aspect of BE teaching and learning method. It is necessary for the teachers to know, master and use the proper teaching methods to reduce the learning anxiety, analyze the learner's need and organize

flexible teaching activities so as to create ecological learning atmosphere (Li, 2004: 46-51). Also, the teacher should foster learner's trans-cultural ambiguity tolerance in order to understand and practice the culture of the target language better.

C. *Using Ecologically Multimodal Discourses and Building Relaxed and Harmonious BE Learning Atmosphere*

Harmonious learning atmosphere is important for the development of learner's creativity, while undesirable atmosphere will make learners feel depressive and insecure (Huang & Zou, 2010:166-167). In other words, in undesirable atmosphere, not only can the learner develop his initiative creativity, but also it will put him on guard. Without the psychologically safe atmosphere, learners will feel anxious. Accordingly, a low pressure, safe and co-adjutant learning atmosphere will be beneficial to the decreasing of learning anxiety and stimulating confidence (Yuan, 2012: 41-45).

Quantity and quality of discourse, questions, feedback, and interactive adjustment---all are playing positive role in building harmonious and sustainable ecological teaching atmosphere (Song, 2013). According to the principle of model state choice given by Zhang (2010: 48-53), whatever way of expression the BE teacher takes, they should adhere to the principle of optimization(i.e. learners should achieve the success of communication by expressing the meaning of discourse to the largest extend), the principle of effective stimulation(i.e. according to the need analysis and learning psychology, teachers should stimulate learner's passion of participation and initiative learning strategies so that the learner can participate in the BE learning activities willingly and transform the external factors into internal factors), and the principle of adaptive coordination(i.e. both the teacher and the learner try their best to build natural ecological BE atmosphere by adapting and coordinating different modes).

Teachers should constantly explore the optimum modal of various discourse factors, insisting on the principle of effective economy and controlling the quantity of discourse. Then, BE will be the "i+1" comprehensive input, both challenging and acceptable. The teacher should also pay attention to the flexibility of questioning, providing opportunity of two-way communication to learners with different academic levels and summarizing the learner's feedback. In choosing multi-modal discourse, teachers should take full consideration of the academic sectors related with the BE teaching activities (e.g. course content, genre), the adaption of multi-media environment and information technology, the learner's individual situation(i.e. the structure of knowledge, the structure of ability, hobby so on and so forth), the harmonious teacher-student relationship, so as to finally realize the teacher-student interaction physically, emotionally and culturally.

Multimodal ecological discourse (Fan, 2013: 69-72) not only emphasizes the regular logical structure, but also stress on all the life-related natural features: body, emotion, culture, context, media, so on and so forth. With the target of stimulating learner's passion and potential and building

harmonious teaching atmosphere, the theory values the teaching environment, learner's talent and cognitive ability, teacher's wisdom and creativity .In the interaction among teacher-student emotion, linguistic performance, functional context, cultural integration, teachers can stimulate the learner's original energy, realize the discourse meaning(i.e. conceptual meaning, interpersonal meaning, textual meaning) effectively, expand learner's cognitive range, touch learner's heart and mind, and finally realize the natural connection of teaching.

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