Model of English Language Learning Motivation in Ecological Perspectives to Improve Learning Motivation and English-Speaking Abilities of Chinese EFL Students at Heilongjiang International University, China

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Abstract

This study aimed to develop a model of English language learning motivation in ecological perspectives and investigate its effectiveness on improving English-speaking abilities of Chinese EFL students at Heilongjiang International University, China. The model comprising the elements of teacher, learner, learning and teaching, and ecological perspectives was designed based on socio-educational principles and the findings of HIU's learning motivation components in ecological perspectives (Zhang, 2021). The speaking instruction according to the designed model with the teaching steps of Igniting Motivation, Setting-Preparing for Speaking, Conversing, Discussing, and Reflecting and Presenting Speaking Task was launched with an experimental group, while a regular teaching of a speaking class was used with the control group. A pretest/ post-test was conducted with both groups. The results revealed an increase of the speaking ability scores at the significance level of 0.05 in the experimental group. The students in the experimental group also manifested a significant increase of learning motivation level. Recommendations for

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Lifeng Zhang, Ph.D. Candidate and Prannapha Modehiran, Ph.D.
Model of English Language Learning Motivation in Ecological Perspectives to Improve Learning
Motivation and English-Speaking Abilities of Chinese EFL Students at
Heilongjiang International University, China   166

English speaking instruction according to the designed model were also presented in this article.

Keywords: Chinese EFL students; Speaking Abilities, Model of English instruction, English Language Learning Motivation; Ecological Perspectives.

1. Introduction

Since the 1980s, China has represented one of the main growth countries in the world, and this has resulted in ardent English language teaching and learning.   Studying English has become a top priority among its foreign language educational policies (Liu, 2016). Over the past decades, China has gradually become a leader in the global community of economy and culture and established a high-profile presence in various areas of international scene (Pan, 2015). English language has therefore become crucial as one of the pivotal foreign languages in the global communication in China.

As English has gained more popularity in China, especially, "One Belt One Road" initiated by the Chinese government recently, some have noted the potential value of English as a means to a greater educational opportunity and social mobility (Pan & Block, 2011). There are studies investigating the effectiveness of the motivational classroom on Chinese EFL learners in the universities in China on their various language skills, especially the speaking abilities (Cheng & Sun 2010). Therefore, it can be seen that English learning is important for students in China (Geng, 2017). Chinese EFL learners view English as a key to a vast range of opportunities: to enter and graduate from university; to study abroad; to secure jobs, especially in international companies; or to get promoted in ideal jobs (Gao et al., 2007).

Research on teaching English as a foreign language (EFL) since the 1990s has paid a great deal of attention to learning motivation in China (Pan & Block, 2011; Wang & Zhang, 2021). However, we still have little understanding of their components and relations with other factors, such as, motivational intensity and achievement (Liu, 2016). These questions remain pressing to be investigated into.

In view of the difficulties of learning an L2, sustaining students' motivation is a key factor for teaching an L2 successfully. An investigation addressing the issue of students' components of

learning motivation (Zhang, 2021) can therefore yield its findings to be used to carry out an instruction motivating the learners to improve their English language performance.

Therefore, the current study aimed to create a teaching model based on language learning motivation theories, the theory of ecological learning, and the findings of HIU (Heilongjiang International University) students' learning motivation components (Zhang, 2021) and to investigate the effectiveness of the instruction as the model on improving the speaking abilities and the level of learning motivation of the HIU Chinese EFL undergraduate students.

2. Literature Review

The theories used as the framework of the current research included motivation in L2 language learning, language learning motivation, L2 motivational self-system, self-efficacy theory, self-regulated learning strategy, Deci's motivational orientation, HIU students' learning motivation components, classroom interactional competence, and ecology of language learning as the perspectives of the teaching model, as in the following.

3. Motivation in L2 Language Learning

In the field of education, motivation is viewed in a more dynamic way, as researchers seek the answers of the questions of not only why languages learners choose to learn a language but also how motivated they are. If learners are motivated in a proper way, they could achieve quite a lot in language learning.

In this model, Gardner (1985) identified two kinds of motivation, the integrative and the instrumental, with much emphasis on the former. The integrative motivation refers to learners' desire to at least communicate or at most integrate (or even assimilate) with the members of the target language. Gardner et al. (2001) focused on attitudes and motivation inside and outside formal classrooms in Spain, whereas the emphasis of Noels et al. (2001) was French learners of English in Canada, while Masgoret and Gardner (2003) on language learner motivation in multicultural classrooms. Despite the variety of learning contexts of these studies, the findings are relatively congruent, demonstrating that integrative motivation exerts a stronger impact on behavior and achievement than instrumental motivation. Gardner (2012) specifically explored the roles of integrative motivation in the prediction of student achievement in Polish schools. These

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Language in India www.languageinindia.com **ISSN 1930-2940 21:9 September 2021**
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Model of English Language Learning Motivation in Ecological Perspectives to Improve Learning Motivation and English-Speaking Abilities of Chinese EFL Students at
Heilongjiang International University, China   168

studies provide insights into the roles and effects of motivation on language learning from different language learning scenarios.

4. Language Learning Motivation

Social psychological studies were the first to initiate research on motivation in language learning (language learning motivation – LLM) due to the fact that it investigated into how awareness of the social and cultural had effects on L2 learning (Dörnyei, 2003). Gardner (2012) defined motivation as a "combination effort plus desire to achieve the goal of learning the language plus favorable attitudes towards learning the language". Dörnyei's (2005) motivation framework was developed and widely adopted as a widely used device to explain the complex concept of language learning motivation (Dörnyei & Ryan, 2015; MacIntyre et al., 2009; Ushioda, 2011).

Dörnyei (2019) confirms that motivation concerns generally the direction and magnitude of human behavior, namely, the choice of particular action (why), persistence (how long), and effort (how hard). Extending the concepts of integrative and instrumental motivation, Noels et al., (2000) distinguish intrinsic and extrinsic motivation, based on self-determination theory. This theory is then synthesized by Dörnyei (2005) in a L2 Motivation Self-System, in which motivation is viewed from social-cultural approach. Dörnyei (2006) and Kaneko (2012) explored that it is possible for the EFL learners to have both types of motivations (integrative and instrumental) concurrently in the process of language learning.

5. L2 Motivational Self System

In the trend of social cultural approach, research into the field of language motivation seems to have turned to a new page when researchers began to investigate this field in relation to learners' identity in the context of their learning (Norton, 2013). Dörnyei (2005) conducted an investigate into motivation and the L2 self and argues that motivation "involves the desire to reduce the discrepancy between one's actual self and the projected behavioral standards of the ideal/ ought-to selves" (p.18). Dörnyei's latest motivation framework (2005) was referred to as the "L2 Motivational Self System" or L2MSS. In a nutshell, L2MSS incorporates three elements: 1) the "ideal L2 self," 2) the "ought-to L2 self," and 3) the "L2 learning experience."

According to Dörnyei (2009), "the ideal L2 self" is the EFL learners' objective to learn and

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Language in India www.languageinindia.com **ISSN 1930-2940 21:9 September 2021**
Lifeng Zhang, Ph.D. Candidate and Prannapha Modehiran, Ph.D.
Model of English Language Learning Motivation in Ecological Perspectives to Improve Learning Motivation and English-Speaking Abilities of Chinese EFL Students at
Heilongjiang International University, China   169

ideally acquire the target language. In the meantime, "the ought-to L2 self" stresses an individual who argues that he or she ought to learn the target language in order to avoid possible negative outcomes. Finally, "the L2 learning experience" can be defined as situation-specific motives that are relevant to the immediate learning environment and experience (Dörnyei, 2005, 2009).

6. Self-efficacy Theory

Self-efficacy is an individual's belief in his or her innate ability to achieve goals. Bandura (1997) defines it as a personal judgement of how well one can execute courses of action required to deal with prospective situations. Psychologists have studied self-efficacy from several perspectives, noting various paths in the development of self-efficacy; the dynamics of self-efficacy, and lack thereof, in many different settings; interactions between self-efficacy and self-concept and habits of attribution that contribute to, or detract from, self-efficacy. Kolbe (2009) believes that the innate abilities focus on valuing individual's particular set of cognitive level to achieve goals.

Self-efficacy affects every area of human endeavor. By determining the beliefs, a person holds regarding his or her power to affect situations, it strongly influences both the power a person actually has to face challenges competently and the choices a person is most likely to make.

7. Self-regulated Learning Strategy

Self-regulated learning (SRL) is one of the domains of self-regulation and is aligned most closely with educational aims. Broadly speaking, it refers to learning that is guided by metacognition (thinking about one's thinking), strategic action (planning, monitoring, and evaluating personal progress against a standard), and motivation to learn. Self-regulated describes a process of taking control of and evaluating one's own learning and behavior.

Self-regulated learning emphasizes autonomy and control by the individual who monitors, directs, and regulates actions toward goals of information acquisition, expanding expertise, and self-improvement".

Finally, students who are self-regulated learners believe that opportunities to take on challenging tasks, practice their learning, develop a deep understanding of subject matter, and exert

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Language in India www.languageinindia.com **ISSN 1930-2940 21:9 September 2021**
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Model of English Language Learning Motivation in Ecological Perspectives to Improve Learning Motivation and English-Speaking Abilities of Chinese EFL Students at
Heilongjiang International University, China   170

effort will give rise to academic success (Perry, 2006). In part, these characteristics may help to explain why self-regulated learners usually exhibit a high sense of self-efficacy. In the educational psychology literature, researchers have linked these characteristics to success in and beyond school.

8. Deci's Motivational Orientation

The behavior of individuals who are intrinsically motivated is internally regulated, meaning that those individuals do not let other people or external events unduly influence them. Intrinsic motivation is likely responsible for the preponderance of human learning across the life span, as opposed to externally mandated learning and instruction (Ryan & Deci, 2017). Gnambs & Hanfstingl (2016) analysis showing that declines in intrinsic motivation are associated with decreasing psychological need satisfaction.

Extrinsically motivated individuals, in contrast, do not perceive themselves as being competent or self-determining. Their behavior is externally regulated, meaning that other people and external events play a large role in determining their decisions, and behavior. The more internalized the motivation, the more it becomes part of a learner's identity. Skinner et al. (2017) showed that basic need satisfaction was associated not only with higher engagement and performance in STEM courses, but also greater identification of oneself. Manganelli et al. (2019) found that college students' autonomous motivation predicted both higher academic performance beyond the effects of prior achievement.

9. HIU Students' Learning Motivation Components

Zhang (2021) conducted a mixed method research study investigated into components of learning motivation. The quantitative findings from the survey questionnaire answered by 120 university students who were Chinese EFL Students at Heilongjiang International University, China were supported by the qualitative findings from the 20 participants in the semi-structured interview. The results revealed that the HIU students reported seven 'components of learning motivation' ranking from most to least including: teacher's motivational strategies, intrinsic motivation, teachers' teaching styles, expectancy, self-efficacy, and extrinsic motivation from seeking self-reward and self-prosperity. The topics reported for each component obtained from the interview included the following.

For teacher's motivational strategies and teaching styles, the students reported they wanted strategies and teaching that could improve their language abilities, encourage them, improve their self-confidence, prompt the change of interest, and make them acquire language skills through discussion. For intrinsic motivation, setting learning goals towards spoken English was reported. For expectancy, they reported expectancy was beneficial for the construction of their knowledge system and for self-efficacy, they reported self-efficacy could improve their integrated skills and it fit for their upcoming examinations. For extrinsic motivation, they reported positive effect of classmates, increase of self-confidence, and favor in cooperative learning and friendly competition.

10. Classroom Interactional Competence

Classroom Interaction in English language learning is the crucial factor of pedagogical practices, and they can demonstrate the kind of teacher's real actions that can create or hinder the learning opportunities (Walsh, 2013). Walsh, (2011) raised an example of the ways in which Classroom Interactional Competence (CIC) is enacted by EFL teachers and learners in Content and Language Integrated Learning (CLIL) contexts.

Classroom Interactional Competence (CIC) can be defined as, 'Teachers' and learners' ability to use interaction as a tool for mediating and assisting learning' (Walsh 2011, p.158). CIC focuses on the ways in which teachers' and learners' interactional decisions and subsequent actions enhance learning and learning opportunities. Indeed, in language testing contexts, we frequently find descriptors or assessment criteria which use a wording like 'shows native like fluency of the language' in speaking tests and so on. Essentially, interactional competence is concerned with what goes on between interactants and how that communication is managed.

Peng (2013) claimed that in EFL contexts, the willingness to communicate inside and outside class needs to be measured differently. While the former requires situation-specific scale items, the latter may be captured accurately by including items describing 'natural situations' for communication in English.

11. Ecology of Language Learning as the Perspectives of the Teaching Model

Rooted in the field of biology, ecology is tentatively defined as "the study of the relationships among elements in an environment or ecosystem, in particular the interactions among

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Language in India www.languageinindia.com **ISSN 1930-2940 21:9 September 2021**
Lifeng Zhang, Ph.D. Candidate and Prannapha Modehiran, Ph.D.
Model of English Language Learning Motivation in Ecological Perspectives to Improve Learning Motivation and English-Speaking Abilities of Chinese EFL Students at
Heilongjiang International University, China   172

such elements" (van Lier, 2010, p. 4). It looks into the complexity of the interactions between people and environmental elements. Transferred to second language learning, ecology of language learning explores the totality and multiple layers of the relationships between the language learner and his/her social environment, with language being the semiotic mediator between them (Kramsch, 2008; van Lier, 2004). They aim to provide a holistic description of language learning in relation to personal, situational, and sociocultural factors whose synergistic effects may either facilitate or hinder language development.

An ecological perspective (van Lier, 2010) focuses primarily on the quality of learning opportunities, of classroom interactions, and of educational experience in general. Important pedagogical principles in an ecological perspective are the creation of ecologically valid contexts in the elements of emergence, relation, diversity, quality, and value.

The model of English language learning motivation in ecological perspectives in the current study was designed based on the findings of research on learning motivation components of HIU university students (Zhang, 2021) and the principles of learning motivation, the interactional learning, and the ecological language learning. was constructed by taking into consideration the elements including teacher element, learner element, learning and teaching element, and ecological perspectives element. The teaching and learning element included teaching steps, lesson plans, lesson sequence plan, learning activities, and learning materials. Every element had to give considerations to the ecological perspectives element which included relation, quality, emergence, diversity, and value. The ecological perspectives element covered every other element in the model because every other element had to follow the principles of ecology in that each had to have the five aspects of the ecological perspectives bring into considerations.

12. Research Methodology

The current research adopted an experimental design to investigate an area in which a teaching model could be designed and implemented to the English major students in HIU and discovered its effectiveness in enhancing the students' learning motivation and their speaking ability from the perspectives of ecological language teaching. The findings reported by Zhang (2021) about the components of learning motivation of the HIU students were used as a

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Language in India www.languageinindia.com **ISSN 1930-2940 21:9 September 2021**
Lifeng Zhang, Ph.D. Candidate and Prannapha Modehiran, Ph.D.
Model of English Language Learning Motivation in Ecological Perspectives to Improve Learning Motivation and English-Speaking Abilities of Chinese EFL Students at
Heilongjiang International University, China   173

fundamental analysis of the learners' significant viewpoints of learning motivation components.

13. Research Samples

The current research samples included 24 English major HIU students equally divided into two groups: 12 in the experimental group and 12 in the control group. The students were all second-year English major HIU students with the age range from 18 to 20. They have all received 12 years of school education in China. They all had English language competence in the intermediate level with at least 10 years of English as a foreign language education in China.

14. Research Instruments

The instruments used in the study included learning motivation questionnaire, pretest and post-test, and the instructional instrument of which the designed model of English learning motivation from the ecological perspectives.

Learning Motivation Questionnaire

In this research, learning motivation questionnaire constructed by Zhang (2021) was used as the preliminary questionnaire, which was the questionnaire taken *before* the instructional treatment, and the culminating questionnaire, which was the questionnaire taken *after* the instructional treatment to investigate as to what extent the learning motivation of the HIU students in the experimental group increased at the significance level.

Pre-test and Post-test

To investigate into to what extent the model of English language learning motivation in ecological perspectives is effective in improving speaking ability of the HIU English major students, a test conducted as both the pretest and the post-test was used. The pretest and post-test included a similar test using the same items of speaking prompts at the two points of times: before the treatment, the pretest, and after the treatment, the post-test. The rubrics descriptors from IELTS including fluency and coherence, lexical resource, grammatical range and accuracy, and pronunciation were used to evaluate the speaking ability of the students in both experimental and control groups.

The pretest and post-test were conducted with the students in both experimental and the

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Language in India www.languageinindia.com **ISSN 1930-2940 21:9 September 2021**
Lifeng Zhang, Ph.D. Candidate and Prannapha Modehiran, Ph.D.
Model of English Language Learning Motivation in Ecological Perspectives to Improve Learning Motivation and English-Speaking Abilities of Chinese EFL Students at
Heilongjiang International University, China   174

control groups (N=24) before and after the teaching treatment. The students were required to speak about 5 minutes and their speaking were recorded with a recording pen. The IELTS speaking rubrics and speaking mark scheme were used to assess the students' speaking abilities.

Instructional Instrument: Model of English Language Learning Motivation in Ecological Perspectives

To embark on this research, the researcher attempted to formulate the model of English learning motivation by using ecological perspectives which were validated by the experts. The course materials, lesson plans and course work were designed based on this model.

Lesson plans and learning materials were prepared for both groups. The researcher was the teacher of the experimental group which included ecological learning using intervention speaking activities/tasks in the lessons designed. The lesson plan with the activities and tasks were examined by the experts. The lessons for the students in the control group included a regular teaching without speaking practice in an ecological learning intervention.

15. Data Collection and Data Analysis

Data used to design the teaching model including the HIU students' learning motivation components were collected from Zhang (2021). The principles of learning motivation in ecological perspectives were collected from reviewing of literature. Once the model was designed, the speaking instruction as the model was implemented with the students in the experimental group. To see the effectiveness of the model, data were then collected from the learning motivation questionnaire (Zhang, 2021) and a pretest/posttest constructed for the current study.

The time for completing the questionnaire was around 15-20 minutes. The data from both preliminary questionnaire (taken before the treatment) and culminating questionnaire (taken after the treatment) were keyed and calculated by a computer program using descriptive and referential statistics.

The scores from the pretest and post-test to show the students' speaking ability were obtained from the experimental group to compare with the control group. The data collection was conducted during the academic year 2019/2020, when all the participants engaged in their second

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Language in India www.languageinindia.com **ISSN 1930-2940 21:9 September 2021**
Lifeng Zhang, Ph.D. Candidate and Prannapha Modehiran, Ph.D.
Model of English Language Learning Motivation in Ecological Perspectives to Improve Learning Motivation and English-Speaking Abilities of Chinese EFL Students at
Heilongjiang International University, China   175

year of university study. When conducting the pretest and post-test, the teacher took the test with the students one by one and face to face, and all tape-recorded, both experimental and control groups. The students in both groups were asked to speak about 5 minutes and their speaking were recorded. The use of audio recording equipment and the material collecting from it allowed the researcher to analyze the data both repeatable and in details. For reliability of the scoring, an interrater was asked to assign scores to the pretest/post-test in the tape recording for both groups.

16. Findings

As for the aim of the current research, a model of English language learning motivation in ecological perspectives were designed and investigated its effectiveness in improving the learning motivation and the speaking ability of the HIU English major students. The model was created based on the socio-educational principles which included L2 motivation self-system, self-efficacy, motivational orientation, and teachers' motivational strategies and the report of the HIU students' components of learning motivation (Zhang, 2021).

The model took into consideration the learning motivation which included students' English learning process in relationship between ecological classroom and other systems that aimed to look at the learning process, the actions and activities of teachers and learners, the multilayered nature of interaction and language use, in all their complexity and as a network of interdependencies among all the elements in the setting.

As a teaching model is an instructional plan comprising the patterns for designing educational activities according to the contexts and environments so as to achieve the particular goal (Joyce et al., 2009; Linh & Suppasetseree, 2016), the model of English language learning motivation in ecological perspectives was constructed by taking into consideration the elements including teacher element, learner element, learning and teaching element, and ecological perspectives element. Every element had to give considerations to the ecological perspectives element which included relation, quality, emergence, diversity, and value (See Figure 1).

Figure 1
The Model of English Language Learning Motivation in Ecological Perspective

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Language in India www.languageinindia.com ISSN 1930-2940 21:9 September 2021
Lifeng Zhang, Ph.D. Candidate and Prannapha Modehiran, Ph.D.
Model of English Language Learning Motivation in Ecological Perspectives to Improve Learning Motivation and English-Speaking Abilities of Chinese EFL Students at
Heilongjiang International University, China   176

Model of English Language Learning Motivation in Ecological Perspectives

Ecological Perspectives Element
Ecological Classroom Environment

Teacher Element

| Teacher Motivational Strategies | Teacher's Style |

Learner Element

| Extrinsic/ Intrinsic Motivation | Expectancy/ Self-efficacy |

Learning and Teaching Element
Teaching Steps - Learning Activities - Learning Materials

1. Igniting Motivation
2. Setting-Preparing for Speaking
3. Conversing
4. Discussing
5. Reflecting & Presenting Speaking Task
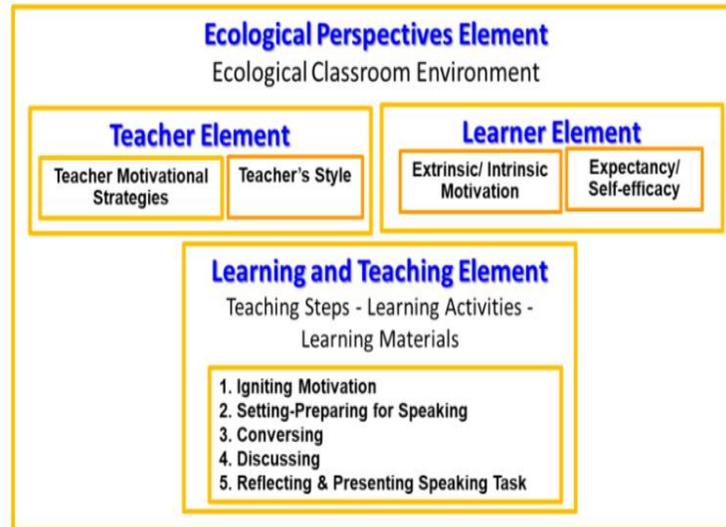
Instructional treatment constructed as the designed model was implemented in the current study. The treatment included, therefore, the learning and teaching activities presented in the lesson plans, which reflected the teacher's roles and the learners' roles through the ecological perspectives.

The lessons of English language learning motivation in ecological perspectives included five steps: Igniting Motivation, Setting-Preparing for Speaking, Conversing, Discussing, and Reflecting and Presenting Speaking Task. The lessons were also demonstrated and used in ecological teaching to create an instruction that could improve students' English-speaking ability. Motivational strategies were used in the lesson to activate and stimulate students to arm with ideas, activities, self-efficacy, and expectancy. All the activities in class teaching were designed and based on motivational strategies in ecological perspectives that were relevant to the lessons to keep consistency of students' speaking process. Students discussed and presented their speaking topics

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Language in India www.languageinindia.com **ISSN 1930-2940 21:9 September 2021**
Lifeng Zhang, Ph.D. Candidate and Prannapha Modehiran, Ph.D.
Model of English Language Learning Motivation in Ecological Perspectives to Improve Learning Motivation and English-Speaking Abilities of Chinese EFL Students at
Heilongjiang International University, China   177

and tasks in the class through speaking activities.

To investigate the effectiveness of the teaching treatment conducted as the designed model on improving students' learning motivation, the learning motivation questionnaire was used with the experimental group as preliminary and culminating questionnaire, or the questionnaire taken before and after the treatment. To investigate the effectiveness of the teaching treatment as the designed model on improving students' speaking ability, a pretest and posttest was used with both experimental and control groups to compare which group obtained the increase of the posttest than the pretest scores at the significance level of 0.05.

For the effectiveness of the teaching treatment as the designed model on HIU students' learning motivation investigation, the findings were from the comparison between the learning motivation levels received from the preliminary motivation questionnaire taken by the experimental group (N = 12) before the teaching treatment and the learning motivation levels received from the culminating motivation questionnaire taken after the teaching treatment.

The question items for the preliminary questionnaire and the culminating questionnaire were grouped into the 'question themes' according to the findings of the learning motivation components (Zhang, 2021) comprising Teacher's Motivational Strategies, Teacher's Styles, Intrinsic Motivation, Expectancy, Self-efficacy, Extrinsic Motivation from parents/peers/others, and Extrinsic motivation from seeking self-reward and self-prosperity. The students in the experimental group had learning motivation before the teaching treatment with the mean score of 3.87 and the SD of 0.68 and after the teaching treatment with the mean score of 3.98 and the SD of 1.04 (See Table 1).

Table 1
Summary of Preliminary and Culminating Learning Motivation Questionnaire

Learning Motivation Components (N = 12)	Preliminary LMQ	Culminating LMQ

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Language in India www.languageinindia.com **ISSN 1930-2940 21:9 September 2021**
Lifeng Zhang, Ph.D. Candidate and Prannapha Modehiran, Ph.D.
Model of English Language Learning Motivation in Ecological Perspectives to Improve Learning Motivation and English-Speaking Abilities of Chinese EFL Students at
Heilongjiang International University, China   178

	Mean	S.D.	Mean	S.D.
Teacher's Motivational Strategies	4.15	0.97	4.51	0.90
Teacher's Styles	4.11	0.99	4.32	1.00
Intrinsic Motivation	4.12	1.02	4.27	0.99
Expectancy	4.06	1.00	4.07	1.02
Self-efficacy	3.93	0.99	3.89	0.96
Extrinsic Motivation from parents/peers/others	3.00	1.26	3.43	1.17
Extrinsic motivation from seeking self-reward and self-prosperity	3.64	1.11	3.41	1.25
TOTAL	**3.87**	**0.68**	**3.98**	**1.04**

From the data analysis and the comparison between the preliminary motivation questionnaire and the culminating motivation questionnaire, the scores of the motivation levels in the experimental group were significantly higher than the scores before the treatment (See Table 1 and 2). The mean scores of the Teacher's motivational strategies (Prelim. LMQ M = 4.15; Culm. LMQ. M = 4.51), Teachers' style (Prelim. LMQ M = 4.11; Culm. LMQ. M = 4.32), Intrinsic motivation (Prelim. LMQ M = 4.12; Culm. LMQ. M = 4.27) and Expectancy (Prelim. LMQ M = 4.06; Culm. LMQ. M = 4.07) were higher than the other three components: Self-efficacy (Prelim. LMQ M = 3.93; Culm. LMQ. M = 3.89), Extrinsic motivation from parents/peers/others (Prelim. LMQ M = 3.00; Culm. LMQ. M = 3.43) and Extrinsic motivation from seeking self-reward and self-prosperity (Prelim. LMQ M = 3.64; Culm. LMQ. M = 3.41).

It can be seen that the teacher's motivational strategies played the highest rank of learning motivation in students' learning. Ranging from the highest to the lowest appeared to be similar in sequence in almost all the question themes in the two times of the questionnaire. The question items which had the same ranking from most to least included Teacher's motivational strategies, Teacher's styles, Intrinsic motivation, Expectancy, and Self-efficacy. The last two question themes about extrinsic motivation had slightly different ranking, namely when after the treatment, Extrinsic motivation from parents/peers/others was slightly higher than Extrinsic motivation from seeking self-reward and self-prosperity, while the converse ranking occurred before the treatment.

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Language in India www.languageinindia.com **ISSN 1930-2940 21:9 September 2021**
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Model of English Language Learning Motivation in Ecological Perspectives to Improve Learning Motivation and English-Speaking Abilities of Chinese EFL Students at
Heilongjiang International University, China   179

Table 2

Comparison Between Results from Preliminary and Culminating Motivation Questionnaire

Group		N	Mean	Standard Deviation	T	P
Experimental	Preliminary	12	3.87	0.68	-15.609	0.001
	Culminating	12	3.98	1.04		

The findings revealed the effectiveness of the teaching model in enhancing the students' learning motivation, since there was an increase of the learning motivation levels in the experimental group at the significance level of 0.05 after having received the treatment of ecological speaking lessons according to the teaching model (See Table 2).

For the effectiveness of the model in enhancing the HIU students' speaking ability, the findings were from the comparison between the pretest and post-test scores of both experimental and control groups. The findings revealed the effectiveness of the teaching model in that for the experimental group, there was an increase of the post-test scores when compared to the pretest scores at the significance level of 0.05, whereas there was no significance difference between the pretest and post-test scores of the control group.

The pretest and post-test, which was a similar test, was designed for the current study using the same items of speaking prompts. The rubrics descriptors from IELTS were used to evaluate the speaking ability of the students in both experimental and control groups.

When looking into the detail of the score descriptors in the scoring rubrics of the speaking pretest and post-test which included fluency and coherence, lexical resource, grammatical range and accuracy, and pronunciation, it can be seen in Figure 2 for the experimental group and in Figure 3 for the control group that the experimental group could perform better than the control group in every of the score descriptor aspects (See Figure 2 and 3).

Figure 2

Experimental group – Comparison of the pretest and post-test scores demonstrated in the four

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Language in India www.languageinindia.com **ISSN 1930-2940 21:9 September 2021**
Lifeng Zhang, Ph.D. Candidate and Prannapha Modehiran, Ph.D.
Model of English Language Learning Motivation in Ecological Perspectives to Improve Learning Motivation and English-Speaking Abilities of Chinese EFL Students at
Heilongjiang International University, China   180

score descriptors in the speaking test rubrics
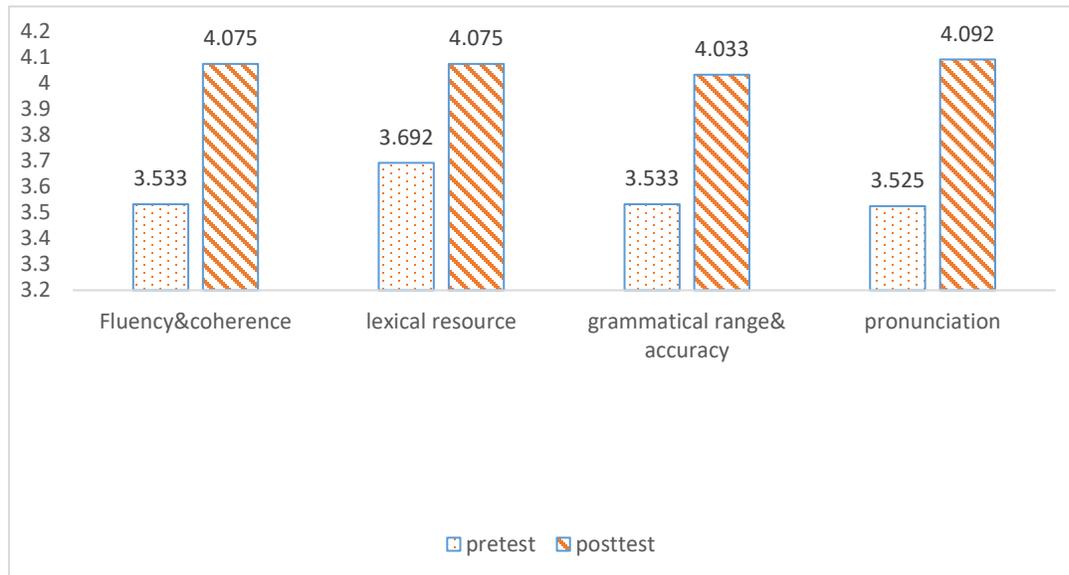
Figure 3

Control group – Comparison of the pretest and post-test scores demonstrated in the four score descriptors in the speaking test rubrics

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Language in India www.languageinindia.com **ISSN 1930-2940 21:9 September 2021**
Lifeng Zhang, Ph.D. Candidate and Prannapha Modehiran, Ph.D.
Model of English Language Learning Motivation in Ecological Perspectives to Improve Learning Motivation and English-Speaking Abilities of Chinese EFL Students at
Heilongjiang International University, China   181
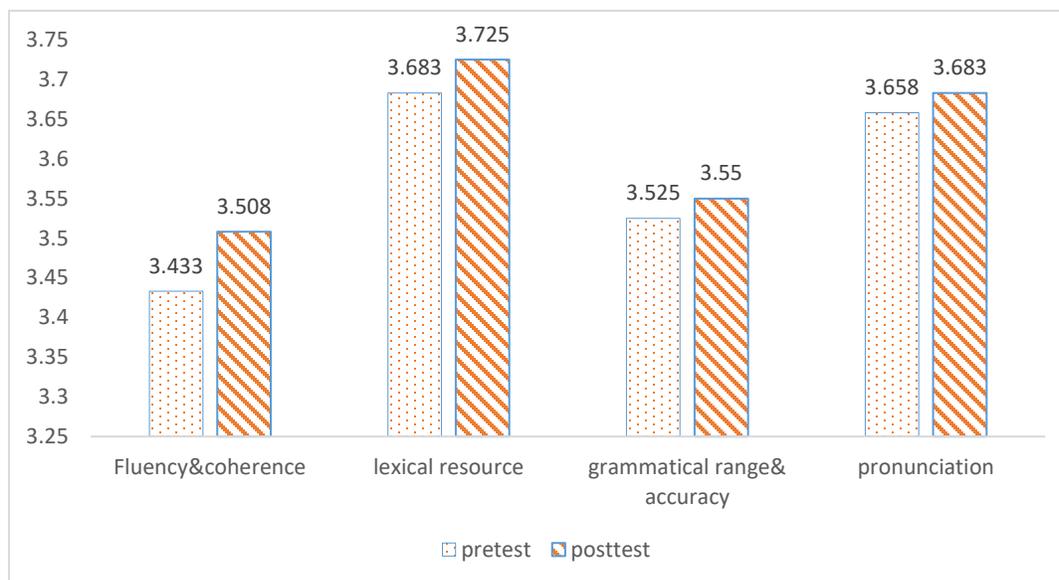
Figure 2 revealed that for the experimental group, the change of the scores from the pretest to the post-test in the aspect of fluency and coherence was from 3.53 to 4.08, whereas for the control group, the change was only from 3.43 to 3.51; in the aspect of lexical resource, the change of the scores in the experimental group was from 3.69 to 4.08, whereas for the control group, the change was only from 3.68 to 3.73; in the aspect of grammatical range and accuracy, the change of the scores in the experimental group was from 3.53 to 4.03, whereas for the control group, the change was only from 3.53 to 3.55; and finally in the aspect of pronunciation, the change of the scores in the experimental group was 3.53 to 4.10, whereas for the control group, the change was only from 3.66 to 3.68.

The detail of the aspects in the rubric score descriptors therefore yielded the increase of the scores of the experimental group more than the control group in every aspect of the speaking ability. The comparison of the four rubrics score-descriptors showed therefore a stronger development of the students' English-speaking abilities with ecological teaching. In comparison between groups, the results of the individual sample t-Test in comparing between the experimental and the control group revealed a non-significant difference for the pretest in all the four score descriptors (See Table 3), while they revealed a significant difference for the post-test in all the four score descriptors (See Table 4).

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Language in India www.languageinindia.com **ISSN 1930-2940 21:9 September 2021**
Lifeng Zhang, Ph.D. Candidate and Prannapha Modehiran, Ph.D.
Model of English Language Learning Motivation in Ecological Perspectives to Improve Learning Motivation and English-Speaking Abilities of Chinese EFL Students at
Heilongjiang International University, China   182

Table 3

Pretest scores of experimental and control groups on four rubrics score-descriptors

Rubrics	The experimental group (n=12)		The control group (n=12)		
	M	SD	M	SD	*p*
fluency & coherence	3.53	0.36	3.43	0.37	.33
lexical resource	3.69	0.38	3.68	0.43	.24
grammatical range & accuracy	3.53	0.25	3.52	0.36	.25
pronunciation	3.52	0.33	3.66	0.38	.36

Table 4

Posttest scores of experimental and control groups on four rubrics score-descriptors

Rubrics	The experimental group (n=12)		The control group (n=12)		
	M	SD	M	SD	*p*
fluency & coherence	4.08	0.27	3.51	0.43	0.04
lexical resource	4.08	0.33	3.72	0.47	0.01
grammatical range & accuracy	4.03	0.22	3.56	0.38	0.02

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Model of English Language Learning Motivation in Ecological Perspectives to Improve Learning Motivation and English-Speaking Abilities of Chinese EFL Students at
Heilongjiang International University, China   183

pronunciation	4.09	0.28	3.68	0.36	0.00

It could be interpreted that in the pretest, both experimental and control groups had equivalent speaking ability, but after the teaching treatment to the experimental group, the scores of the students' speaking ability in the experimental group differed significantly from the control group in all the aspects of rubric score descriptors. The scores of the pretest compared to the post-test made within group and between groups of the experimental group and the control group yielded the results that the post-test scores were higher than the post-test scores at 0.05 significance level.

17. Conclusion and Discussion

The current study employed quantitative method approach which was experimental design. Mean scores, or the differences between students' pretest and post-test scores were compared to determine whether students made progress significantly in with or without treatment class (Nunan & Bailey, 2009). The data were also gathered from the experimental group to compare the scores from preliminary/culminating motivation questionnaire to see a significant increase of the learning motivation level after the treatment.

The model of English language learning motivation in ecological perspectives was created considering four elements including the learner element: intrinsic/extrinsic motivation, self-expectancy/self- efficacy; the teacher element: teacher's motivational strategies, teaching styles; the learning and teaching: teaching steps, learning activities/materials; and the ecological perspectives environment: ecological classroom environment. According to the designed model, lessons in speaking instruction comprising six steps: Igniting Motivation, Setting-Preparing for Speaking, Conversing, Discussing, and Reflecting and Presenting Speaking Task was launched with the experimental group.

The effectiveness of the model and the instruction based on the model was revealed by a significant increase of the pretest/posttest scores and the learning motivation level scores in the experimental group.

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Language in India www.languageinindia.com **ISSN 1930-2940 21:9 September 2021**
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Model of English Language Learning Motivation in Ecological Perspectives to Improve Learning Motivation and English-Speaking Abilities of Chinese EFL Students at
Heilongjiang International University, China   184

The research brought insights on how learning motivation in ecological perspectives could be adopted to create a teaching model and how the model was used to conduct spoken English learning and practice. It also demonstrated that the effective classroom interaction with the students and group discussion could increase the fluency of oral English to a varying extent.

The current study raised a few pondering points for learning and teaching English speaking. First, classroom interaction activities should be applied after the step regarding motivation strategies with concerns of ecological perspectives each time as a technique. EFL learners should then understand that their speech including the intonation and the pronunciation as the speaker have effects on other EFL learners' performance of comprehension. When the students have difficulty in comprehending the speech of native speakers, the interaction with their friends can help as scaffolding steps to practice listening and speaking.

Mentioning comprehension performance as the other side of speaking on which the intonation and pronunciation can play an important role, the researcher found a listening deficiency of some students in this study that reflected their ability to speak. This helped to explain why the students were able to understand their own and their peers' speech better than the ones pronounced by the native speakers. Therefore, teachers could also provide certain amount of conversation activities comprising both listening and speaking in conversation, which could help students scaffold from classroom to the actual conversation situations with native English and also international English speakers, which can also be through online internet, starting from group conversation to individual out of class as they want.

The current study also proposes a push for interactional competence to give our students a truly emancipating, rather than compensating foreign language education. In addition, there should be ecological research that investigates language learning and teaching in real life inside and outside classroom, acknowledges the diversity and complexity, and adopts different methods for effective teaching and learning of oral English language.

For the students in English speaking classroom, the teachers should always provide them sufficiently and plenty supports in all classroom learning activities. However, the implications from the current study include that once it comes to the performance practice, teachers might

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Model of English Language Learning Motivation in Ecological Perspectives to Improve Learning Motivation and English-Speaking Abilities of Chinese EFL Students at
Heilongjiang International University, China   185

gradually decrease some supports provided that the students could become independent and self-regulated learners and problem solver who can perform well the task independently, which would also be aligned with ecological perspectives of learning.

For the teachers themselves, there should also be a detailed examination of their own emotions as a result of their interaction with a variety of environmental elements and relationships. As for the learners, Chinese EFL students' classroom willingness to communicate should socio-culturally be constructed as a function of the interaction of individual and environmental factors, both inside and outside the classroom.

Accordingly, as English language teachers, it was necessary to familiarize themselves with knowledge about the language learning strategies, learners' needs and diversity of teaching methods and materials, teaching oral English in particular. Teachers should provide not only in terms of the direction of using strategies but also in terms of the ways to encourage learners to select the most suitable strategies by the learners themselves. Therefore, teachers should regard strategy training as an integral part of regular class routine, if possible, rather than an additional activity.

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Model of English Language Learning Motivation in Ecological Perspectives to Improve Learning Motivation and English-Speaking Abilities of Chinese EFL Students at
Heilongjiang International University, China   186

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Model of English Language Learning Motivation in Ecological Perspectives to Improve Learning Motivation and English-Speaking Abilities of Chinese EFL Students at
Heilongjiang International University, China   187

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Model of English Language Learning Motivation in Ecological Perspectives to Improve Learning Motivation and English-Speaking Abilities of Chinese EFL Students at
Heilongjiang International University, China   188

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Model of English Language Learning Motivation in Ecological Perspectives to Improve Learning Motivation and English-Speaking Abilities of Chinese EFL Students at
Heilongjiang International University, China   189