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Assessing EFL Teachers' Reflective Thinking: A Case Study of Two In-Service Secondary Teachers

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Abstract: This study aims to investigate ways of assessing the quality of teachers' reflective thinking and the factors that influence reflective thinking in EFL teachers through case studies. The reflections are assessed from two perspectives: content, depth and changes in action. The findings of this study reveal that there are two main factors, which affect teachers' reflective thinking: differences of schools in different economic regions (teaching environment); mode of cooperation; teachers' beliefs. It also indicates that improvement of teaching lies on teaching context, teachers' beliefs and teachers' reflection regardless of their professional titles. EFL teachers' reflections can deepen based on their personal beliefs, their teaching contexts and background and the mode of cooperation.

Key words: Assessing, EFL teachers, reflective thinking

INTRODUCTION

Qualified EFL teachers are a key factor in the successful reform of EFL teaching in China. In 2003, the Chinese government introduced into high schools a new standard curriculum, which required teachers to develop students' ability to use language appropriately and to develop students' ability in autonomous learning. It also required teachers to integrate language teaching with non-linguistic teaching, such as affective teaching, strategy teaching and inter-culture teaching (Chen *et al*., 2003). It is a serious challenge for EFL teachers. They need a large quantity of new knowledge, constant learning, to reform their teaching methods and improve their teaching so as to sustain professional development.

The effectiveness of English Curriculum Standard's execution depends to some extent on the improvement of the qualities of EFL teachers, teachers' qualifications, so the development of teachers should be put in a dominant place in the reform of education. Teacher development means a process of evolving as a teacher, of the continual unfolding of beliefs and teaching practices throughout a teacher's career (Gebhard, 1998). For Underhill (1986), teacher professional development is a self-reflective process of becoming the best kind of teacher that I personally can be. During the process, personal awareness is of first importance. As Bailey *et al*. (2004) put it, self-awareness and self-observation are the cornerstones of all professional development. They are essential ingredients, even prerequisites, to practicing reflective teaching.

There is a general consensus that reflectivity leads to professional growth and that without systematic reflection, professional growth is unlikely to occur (Wildman *et al*., 1990). Professional development is a lifelong process and obtaining initial certification and basic techniques is only a first step in this process. On the other hand, reflective practice is predicated on lifelong professional renewal. Nunan and Lamb (1996) state that reflecting on one's teaching and in the process, developing knowledge and theories of teaching is an essential component in this lifelong process. Richards (1990)

considers reflection as a key component of teacher development. He says that self-inquiry and critical thinking can help teachers move from a level where they may be guided largely by impulse, intuition, or routine, to a level where their actions are guided by reflection and critical thinking. Reflection is also seen as a process that can facilitate teaching, learning and understanding and that plays a central role in teacher development.

Therefore, in EFL teachers' development, reflective thinking and practice plays an important part and has come to be widely recognized as a crucial element. The main purpose of reflective teacher education is to develop teachers' reasoning about why they follow certain strategies and how they can improve their teaching to have a positive effect on their students. Thus, if reflection leads to better teaching then it will enable students to learn better.

Teaching is a complex and highly skilled activity, which requires classroom teachers to notice chains of reasoning and judge what happens in the classroom and decide how to act. High-quality teaching relies on such professional expertise. The process of reflective teaching supports the development and maintenance of professional expertise. The process of reflection thus feeds a constructive spiral of professional development and capability. Reflective teaching should be personally fulfilling for teachers, but also lead to a steady increase in the quality of the education (Pollard, 2002).

Zhu (2004) explains, The reflective process is of two types based on two different time frames. The first is reflection-on-action, which refers to the reflection that is happening before and after the event; the second is reflection-in-action, which means the reflection that is occurring during the event. Schon (1983) proposes that expert professionals core of practice is reflection-in-practice in terms of holding a reflective conversation with the situation. Reflection involves conscious thought. At its core, reflection is a process of becoming more conscious about teaching purpose, action, conditions and social consequences of actions.

Richards and Lockhart (1996) asserts that individuals working alone can carry out reflective teaching. In reflective teaching teachers and student teachers collect data about teaching, examine their attitudes, beliefs, assumptions and teaching practices and use the information obtained as a basis for critical reflection about teaching. This version of reflective teaching could be practiced in isolation as it focuses on teachers' action and thoughts before, during or after class. The nature of reflective thinking of teachers refers to the process of their constantly improving teaching effects by the ways of recalling, diagnosing, self judging etc. Teachers should develop ways of thinking about their classrooms, ways of carefully looking back on their actions and ways of reflecting on their own knowledge.

However, as Rodgers has pointed out Due to the lack of a clear definition of reflection and vague criteria to assess the quality of reflective thinking, there have been problems in implementing reflective activities in teacher education program (Rodgers, 2002). Teachers are not willing to or are not used to reflecting on their teaching. As a result, the quality of reflection is unsatisfactory. Much research has been done on ways of improving teacher development, such as teacher training, teacher learning, teacher autonomy, teaching methods and materials etc., but little has been done on factors, which influence teachers' reflective thinking and assessment of teachers' reflection. Effective assessment of reflection can develop the teachers' reflective thinking because it can show clear picture of how well teachers reflect and give them feedback. Through feedback, teachers can review and improve their reflecting skills. This study aims to investigate factors, which influence EFL teachers' reflective thinking, ways of assessing the quality of teachers' reflective thinking and promoting teachers' reflective thinking. The aim of this research is to explore ways of assessing the quality of teachers' reflective thinking and factors that influence reflective thinking in EFL teachers in China.

Although the analysis of the data is on going, the research is motivated by the following questions:

- What are factors which influence teachers' reflective thinking in China?
- How do we assess the quality of EFL teachers' reflective thinking in China?

MATERIALS AND METHODS

Case Study Approach

This study was conducted in 2005-2007 in Guangdong province of China and set out to discover what factors influence EFL teachers' reflection and how to assess the quality of reflection and how to improve teacher's reflective thinking. A case study method was used as Johnson (1992) defines case study in terms of the unit of analysis. A case study researcher focuses attention on a single entity, usually as it exists in its naturally occurring environment. Johnson (1992) also states the following advantages of the case study method. First, a close study of one case allows researchers to find answers to different types of questions from those for which corelational techniques are appropriate. Second, while the findings of a case study cannot be generalized, it is useful to compare case studies and search for useful general principles. Third, the case-study methodology is flexible and can be formulated to suit the purpose of the study. It can vary along a number of dimensions.

Subjects

The two participants of this study are serving as high school EFL teachers in China. One is a female teacher called Mary aged of 37, who has 15 years of teaching experience in a high school in a developed region and the other is a male teachers called Tom aged of 38, who has 18 years of teaching experience working in a developing region. Both teachers have similar education backgrounds and they majored at English at the university level and they have got same professional status senior teacher. A senior teacher has at least five years of teaching as a sub-senior teacher with a good record of teaching and publications. A senior teacher is the highest position for high school teachers in China. They both teach English as foreign language to about 100 students of 2 classes (50 students in a class) in the same grade-senior grade one. Their students have all studied English for at least 6 years and have reached the intermediate English level.

Procedures

This study is part of a three-year longitudinal research project. It gathered data from multiple sources: the workshops before the lesson, field notes during the lesson, interview immediately after class and reflective journals to examine the two teachers' reflections of Chinese high schools (Table 1). The workshop was usually held in the teachers' school on the day before the researchers were going to observe classroom. The purpose of the workshop was to provide an opportunity for high school teachers to carefully consider their teaching and for researchers to promote the teachers' reflective thinking as a tool to solve their teaching problems. The workshops and interviews, (one interview each half a semester) which were conducted after the classroom observation were tape-recorded and transcribed for analysis. Reflective journals were sent to the researchers either by E-mail or on paper. Data collection began during the Chinese school year's first semester, September 2005.

Table 1: Teacher's background information

Name	Sex	Age	Years teaching	Teaching grade	School location	Lifelong learning status	Professional title
Mary	F	38	15	Senior grade 1	Developed	1-month course in Britain	Head of English section
Tom	M	39	17	Senior grade 1	Developing	1-week training in China	Head of senior grade one

The teachers' names are pseudonyms

RESULTS AND DISCUSSION

The results reported here are summarized according to the 2 research questions asked in this survey study what factors influence teachers' reflection and how their reflections are assessed. The discussion is based on their reflections. The content of reflective thinking addresses the teachers' main concerns and the depth of reflective thinking evaluates how they develop the thinking process. For the contents of reflection, participants usually focus on the purpose of their teaching, the procedure and reasons behind their teaching and evaluation of their teaching that is what they did and how they did it, why they did things to achieve their goal, whether they succeed in achieving that goal, the reasons for their failure to achieve it, how to improve it. Reflective thinking was assessed on three levels: Recall level (R1): one describes what they experienced, interprets the situation based on recalling their experiences without looking for alternative explanations and attempts to imitate ways that they have observed or were taught. Rationalization Level (R2); one looks for relationships between pieces of their experiences, interprets the situation with rationale, searches for why it was and generalizes their experiences or comes up with guiding principles. Reflectivity level (R3): one approaches their experiences with the intention of changing/improving in the future, analyzes their experiences from various perspectives and is able to see the influence of their cooperating teachers on their students' values/behavior/achievement (Lee, 2005).

Contents of Mary's Reflection

Mary concerned mainly about her students in her teaching. Her reflection indicated that she considered her students' behavior and learning abilities and created conditions for her students to learn. She usually prepared her lessons from the students' perspective. She understood different students who needed different amounts of time to do the same activities. She also considered individual differences of students when preparing her lesson plans. Her great rapport with class could be illustrated in an interview by what she said: "I like my students and have very good relationship with them. My students also like me very much. They show a high level of comfort, interest and a willingness to participate in classroom activities. This makes me work harder to design various activities and prepare my lessons carefully to meet my students' needs, interest and learning abilities etc." Her reflection indicated she had thoroughly pleasant personality.

She frequently recalled her lesson implementation on teaching purpose, classroom activities, her roles, evaluation on students, her question techniques, appropriateness of resources of teaching and effectiveness of a lesson etc. In her reflective journal, for example she showed her concern about vocabulary teaching in her reflective journal. She considered various methods of vocabulary teaching. She reflected that vocabulary teaching was important for students, which could not be neglected. But more important was how to teach vocabulary. She summarized 5 activities in vocabulary teaching, which is very useful for developing students' learning strategies, encouraging students' autonomous to learn, remember and use words effectively. She pays great attention to her questions asked in class and reflected whether her questions focused on eliciting right answers from her students or encouraging them to think and created in order to develop students' learning ability. She was used to recalling whether each step of her teaching in class met the purpose of her lesson design before the lesson and whether the result was satisfactory or not.

However, she expressed her weakness in teaching theory in a workshop, although she was familiar with National New Curriculum and understood how to integrate non-linguistic knowledge with linguistic knowledge. She stated that she could not think of any methods theoretically and teaches only by her experience. That was to say she was quite experienced in what to teach and how to teach her students, but she could not explain why it is, sometimes when she was not satisfied with her lesson or some steps of teaching in class. She recognized the importance of learning teaching theory and hoped to improve it.

Depth of Mary's Reflection

When she was first interviewed, her reflection was mainly a descriptive explanation with no mention of rationale and at level R1. For instance, she focused on recalling what she did in class, what students did in class, what activities she asked student to participate in and whether she was satisfied with the lesson or not etc when she began to reflect. Her reflective thinking in the workshop also indicated that she focused on describing what she experienced and recalled her experiences without looking for explanations. However, in the following workshops and her reflective journals, there was a growing tendency toward levels R2 and R3. She gradually showed her awareness in what to teach, how to teach and concerned about her students' needs with rationale.

In her reflective journal, her reflective thinking mainly belongs to the domains of levels R2 and R3 although she sometimes stays at level R1. For example, she looked for relationships between her experience and theory and interpreted the situation with rationale. She explained the reasons why she did it and generalized her experiences. Another example of this is that in her reflective journal, she summarized why vocabulary learning is important to learn and how students learn them effectively. She listed 5 specific ways of learning words, which would influence her co-teachers. In addition, she intended to change and improve her teaching by improving her teaching theory level. For example when she realized her understanding of theory was weak, she dedicated herself to learning and in doing the project in teaching. The level R2 and R3 are significantly extended.

Contents of Tom's Reflection

In the interviews, Tom's reflection mainly focused on the content of classroom teaching in lesson implementation. He reflected that he often presented too much content, which he could not finish, because he had to deal with the problem of explaining many language points appeared in the text and emphasized vocabulary and grammar teaching in class. Therefore, he had to ask students to do a lot of exercises to consolidate what he taught. Most of class activities in his class is lecturing and doing exercises and students had few opportunities to use English in communicative way. This can be illustrated in the workshops and interviews by what he said "I focus on vocabulary and grammar teaching because we have to do this to face various examinations. I myself do not like the way of teaching but teachers' work is evaluated from the result of the examination and the school is evaluated form the result of the examination. What we are trying to do is to finish all the contents in the textbooks. So it takes time to do it and it is difficult to finish all the contents provided by the administrators". This reflected his belief that teaching was for the examination. In the workshops, Tom tended to raise problems, which he felt difficult to solve during his daily teaching. The typical example of this was the problem of management of the classroom, such as designing various activities, organization of discussion in a big class, group work and appropriateness of teacher talk in class. Tom thought that not only students did not like group work so much as they felt they can hardly learn in groups but also his headmaster did not like it either, because his headmaster did not agree that the students should do many activities in a class instead of doing much explanation. What his headmaster only concerned about was the results of examinations.

Depth of Tom's Reflection

Tom's reflection indicated that he recalled what he did and how he did it, which was mainly a descriptive explanation with no mention of rationale and at level R1. Although he sometimes reflected why he did it, he tended to find the problems in his teaching but he thought that he had to do it and it was impossible for him to change because of misconception of students, uncooperative school headmaster and the requirement of examination. He could reflect the problems but he seldom analyzed

the problems from himself and always complained about others, which resulted in his traditional way of grammatical teaching and teacher-centered classroom teaching with little change in his teaching during the project time. His reflection focused on the explanation or description of the classroom events and steps but he could not explain why the teaching and learning result was not effective. Besides, Tom did not make any changes in teaching even for students with different English levels. His reflection in the interview seemed list-oriented without any explanation and only occurred on description of what happened in class. So his reflection only stays at level R1 and is recall-oriented.

In the recent interviews, his concerns shifted from grammar teaching to roles of teacher, lesson preparation issues to students. On the surface, there was a growing tendency toward levels R2. However, his reflection implied that he did not understand what a perfect lesson design was. He thought he knew the subject matter well and his lesson plans were designed by dealing with subject matter because his teaching methodology was perfect. He did not realize that a lesson without considering students and involving them in some activities was not a good lesson. He was not concerned about his students and the students were not effectively involved in activities. It implied that he had got a wrong concept of the perfect design and did not ask himself why students could not do it. He just recalled what happen in class without asking why it was and how to change it. So, he still remains at level R1.

In the year's longitudinal program, Tom did not write in the reflective journal. When he was asked why he did not write in it. He complained that he was too busy with preparing lessons and meetings of schools and he said he was under a lot of pressure because the school or government evaluated the results in examinations. This indicates that he does not think frequent reflection can improve his teaching or he has not seen the good result of keeping a reflective thinking. However an awareness of the need for reflective thinking might be the first condition for its improvement. This should be followed by continual practice of reflection in various formats and on multiple specific issues (Lee, 2005).

Changes as Result of Reflective Thinking and Further Discussion

Table 2 shows that Mary has changed a lot through reflection as what she said I benefited a lot from reflection. She reflected and took action. However, Tom remained almost the same although he had some changes in his beliefs. What makes such a big difference between the two teachers? I think there are two main factors:

Table 2: Changes in beliefs and action

Name	Problems of reflection	Changes in beliefs (data from reflection)	Changes in action (data from classroom observation)
Mary	Weak in theory; effective assessment	I read some books in theory to improve my teaching. Students like 'good, excellent' but they like more specific comments or assessment from their peers or their teacher. Students are very happy about such assessment, which strengthen the good relationship between students and the teacher.	Decision making in her class is shared and negotiated. She is a guider, helper and partner in class. Why do you think he has made a good speech? (Elicit answer from students) Because he speaks fluently. He gives us good examples. His speech is informative.
Tom	Discussion activities; How to deal with students' exercise; Grammar	It is important to provide chances for students to speak through activities. It is useless to just check the answers in dealing with students' exercises. We should most focus on language points in class because of examinations.	Teacher-centered classroom, the teacher does a lot of explanation. Still check the answers with students about their exercises. In most of class, the teacher does a lot of explanation in language points then some practice on them.

First, it might be a difference of different schools in different regions. Working in a developed region, Mary is better informed and it is easier for her to get books to read, share ideas with various kinds of teachers and attend good lectures of many universities and research institutions. Generally speaking, there are more capable and qualified teachers in developed areas than developing areas. Therefore Mary has very good co-teachers working with her.

However, unlike Mary, Tom is less informed in a developing area. For example, only a few top teachers in his district can get a chance for teacher education at a university, most of teachers get lifelong learning from the top teachers in their area or from reading books. The professional development of the teachers in developing area is strongly affected by the surroundings and teaching context.

Second, constant cooperation may increase the amount of interaction among teachers. By interacting with colleagues, teachers can learn a lot by working together. Mary's school has good atmosphere to cooperate with each other (Table 2). We make it a rule that we share resources in our English section and discuss the teaching plan for each lesson and then one of the teachers makes it in details into PPT. When all teachers have the same lesson, they can use it with a little bit of change if necessary since the teachers keep the pace in their teaching. Every teacher has his/her turn to do it (Mary in interview after class).

However, Tom is not in the atmosphere of cooperation or they do not tend to cooperate effectively. Although they share lesson plans together the main purpose for them to do it is to release working load and a teacher do not need to prepare each lesson. So they adopt it without any change to their different students. Working together usually occurs before, in and after lessons. Before lessons, teachers can work together to plan the lesson. Such planning can entail the macro levels of an entire curriculum or the syllabus for a course, or it can be the preparation for a specific lesson plan (Bailey *et al*., 2004). That is the pro-active decision making. Likewise, in lessons, teachers will make decision by reflecting what they discuss and after lesson and teachers can have a lot of discussion on the effectiveness of lesson plan after class, which can provide good opportunities for them to learn from each other, even for veteran teachers. Therefore, team teaching really consists of three phases:

- Pre-instructional planning
- Instructional in-class teamwork
- Post-instructional follow-up work.

Third, it is teachers' beliefs that affect teachers' reflective thinking. Tom does not think reflection is useful for improving teaching. He holds strong belief that teaching is for examinations in China, because our teaching is assessed according to the result of examinations which is related to the teachers' income and promotion (Tom in interview after class). Therefore, he has to take every chance to focus on language points in teaching and practice to meet the needs of examinations without being aware students are involved or challenged although sometimes he does not think it is good way of learning English. However, Mary holds strong belief that teaching is for the development of students. Therefore, she considers curriculum, teaching materials, methods, learning strategies etc regarding to the needs and development of students. She is confident to share control with students. In many cases, she takes her lead from her students; seeing herself as someone whose job is to create the conditions that enable the students to learn for themselves. Her own personality and attitude are active encouragement to learn (Scrivener, 2002).

Over the two years of the study the changes that the two teachers experienced were changes in beliefs and teaching practices. This is a long, slow, ongoing process, during which their improvement in both beliefs and teaching practices emerges gradually. Individual teachers have different concerns and preferences among the reflective practices. Mary concerned more about her students learning, which can make her to frequently reflect on how to improve students' effectiveness of learning, while Tom

concerned more about the result of examination, which makes him have short-term goal in his teaching. Therefore, changes in Mary's teaching practice are highly visible. However, Tom's improvement in his reflection was not steady and sometimes seemed to go ups and downs and changes in his teaching are not invisible.

CONCLUSIONS

This study serves as a first step to understand the teachers' reflective thinking. In this study, the teachers' reflective thinking is explored from what they said and what they wrote in workshops, interviews and a reflective journal. The analysis of the data reveals the content, depth, difference of reflective thinking between the two teachers, changes of beliefs and actions through reflective thinking and factors influencing their reflective thinking. Beliefs can drive reflection and reflection can change beliefs. Teachers' beliefs and reflection are closely related to each other.

Through examining what influence teachers' reflection about language teaching, we find that differences in different economic developing area are associated with EFL teachers' reflective thinking in their professional development. Teachers in developed area with good learning surroundings are more motivated to learn and reflect than those who are in developing area with poor learning surroundings.

Scrivener states (2002) that there are three kinds of teachers: First, an explainer who knows their subject matter very well, but have limited knowledge of teaching methodology relies mainly on explaining or lecturing as a way of conveying information to their students. Second, an involver who knows both the subject matter and teaching methodology can use appropriate teaching techniques to help his/her students to learn subject matter and involve students actively in designed activities but still retaining clear control over what happens in the classroom. Third, an enabler who is about working with other human beings not only knows subject matter and teaching methodology but also has an awareness of how individuals and groups are thinking and feeling within his/her class. He/She actively respond this in his/her teaching plan and methods and in building effective working relationships and a good classroom atmosphere. Tom reflects at teaching level as an explainer, sometimes an involver while Mary reflects at teaching level as an involver and an enabler. The study indicates that different teaching level lies on teaching context, teachers beliefs and teachers reflection regardless of their professional titles.

Also, the study shows that beliefs can be changed with reflection although it is a slow, practical and refining process. There are other factors which can promote the change in teaching beliefs such as reform of up-down curriculum, the use of new teaching materials, reform of examination, expectation of school leaders and parents, teaching context and cooperation with other teachers etc. This study has shown that the level of reflective thinking is based on the content of the reflections. Therefore, one can reflect on only recalling what they have taught in depth on level R1 and be considered at a lower level. Only when one reflect the reasons to the teaching with rationale and tend to change and improve their teaching, one can be considered reflecting at a higher level. Some of their reflections mentioned above are rated at level R2 and R3 while they reflect on practical issues. Furthermore, awareness of the teachers background and an understand of their teaching context is important to know then teaching them to reflect, as Holt-Reynolds (1992) states that "Having knowledge about student teachers will help teacher educators in developing effective tasks and activities aimed at cultivating reflective teachers". Teachers need to think about what, why and how to teach and what the teacher's role is before they go into their field experience. Constant review and analysis will lead them to be more reflective and better teachers.

REFERENCES

Bailey, K.M., A. Curtis and D. Nunan, 2004. Pursing Professional Development. Beijing: Foreign Language Teaching and Research Press, pp: 22-181.

Chen, L., Q. Wang and X.T. Cheng, 2003. Interpretation of English Curriculum Standard. Nanjing: Jiangshu Education Press, pp: 172-173.

Gebhard, J.G., 1998. Second language teacher development and Korea. Korea TESOL. J., 1: 1-10.

Holt-Reynolds, D., 1992. Personal history-based beliefs as relevant prior knowledge in course work. Am. Edu. Res. J., 29: 325-347.

Johnson, M.D., 1992. Approaches to Research in Second Language Learning. Longman Publishing Group. Guilford Press, New York, pp: 75-76.

Lee, H.J., 2005. Understanding and assessing pre-service teachers; reflective thinking. J. Teach. Teacher Edu., 21: 699-715.

Nunan, D. and C. Lamb, 1996. The Self-Directed Teacher: Managing the Learning Process. Cambridge University Press, Cambridge, pp: 120.

Pollard, A., 2002. Reflective Teaching, London, New York: Continuum, pp: 4.

Richards, J.C. and D. Nunan, 1990. Second Language Teacher Education. Cambridge University Press, Cambridge, pp: 5.

Richards, J.C. and C. Lockhart, 1996. Reflective Teaching in Second Language Classroom. Cambridge University Press, pp: 1.

Rodgers, C., 2002. Defining reflection: Another look at John Dewey and reflective thinking. Teachers Coll. Rec., 104: 842-866.

Schon, D.A., 1983. The Reflective Practitioner: How Professionals Think in Action? Teaching about Teaching: Purpose, Passion and Pedagogy in Teacher Education. The Falmer, Press, London, pp: 63-64.

Scrivener, J., 2002. Learning Teaching, a Guide Book for English Language Teachers. Shanghai Foreign Language Education Press, pp: 6.

Underhill, A., 1986. The Teacher Development Series. Part 1. Heinemann, Oxford.

Wildman, T.M., J.A., Niles, S.G., Magiliaro and R.A. McLaughlin, 1990. Promoting Reflecting Practice among Beginning and Experienced Teachers. In: Encouraging Reflective Practice in Education. Clift, R.T., W.R. Houston and M.C. Pugach (Eds.), Teachers College Press, New York, pp: 139-162.

Zhu, X.Y., 2004. The Development of Pedagogical Content Knowledge in Novice Secondary School Teachers of English. Nanjing Normal University Press, Nanjing, pp: 25.