Abstract—Vocabulary is the basic building block of language, and the acquisition of a language relies on vocabulary. In acquiring vocabulary, the adoption of vocabulary learning strategies is an important affecting factor. The relationship between vocabulary learning strategy and vocabulary knowledge has been the focus of researchers. Motivation also has a significant impact on language learning. The paper aims to explore excellent English graduates’ English learning motivation and vocabulary learning strategies. Two separate questionnaires are used to investigate different motivations and vocabulary learning strategies of English majors. In designing the motivation questionnaire, Gao Yihong’s questionnaire is used as a reference and in designing the vocabulary learning questionnaire, the paper mainly follows O’Malley and Chamot’s study. Through analysis, the study reveals the following findings: Firstly, with the least mean value exceeded 2.4, all kinds of vocabulary learning strategies were adopted by excellent English majors while learning vocabulary. Meta-cognitive (M=3.614035088) strategies and cognitive (M=3.633684211) strategies were preferred. Secondly, for the situation of learning motivations, situational motivations (M=3.858695652) were the highest. With the mean value of 3.432065217, instrumental motivations were the lowest (M=3.432065217). Especially achievement motivation, it was the least held motivation by excellent English majors.

Index Terms—Vocabulary, learning strategies, English majors, motivation.

I. INTRODUCTION

Vocabulary is the construction data of a language and the necessary basis of language expression. Vocabulary plays an important role in language communication. Students’ English vocabulary level will have an important impact on their abilities of listening, speaking, reading and writing. English vocabulary plays a fundamental role in the development of individual’s comprehensive language ability in the future. Therefore, English vocabulary learning is one of the key individual’s comprehensive language ability in the future. Vocabulary plays a fundamental role in the development of abilities of listening, speaking, reading and writing. English vocabulary plays a critical role in language communication. Students’ English achievement motivation, it was the least held motivation by excellent English majors.

II. THEORETICAL FRAMEWORK

A. Models of Vocabulary Learning Strategies

Learning strategies are the special behaviors or thoughts which learners employ to help them understand, acquire, or keep new information. They are consciously used by learners to directly or indirectly influence language learning. Many researches have been conducted concerning vocabulary learning strategies. Scholars divided types of vocabulary learning strategies differently [4]. O’Malley & Chamot classified three types of vocabulary learning strategies: meta-cognitive strategies, cognitive strategies and social/affective strategies. The specific details of the category are presented in the Table I below:

| TABLE I: O’MALLEY & CHAMOT’S VOCABULARY LEARNING STRATEGIES CLASSIFICATION |
|------------------------------------------------------------|
| Generic Strategy Classification | Specific Strategies |
| Advanced organization, directed attention, selective attention, self-management, advanced preparation, delayed production, self-monitoring, self-evaluation... |

Meta-cognitive strategies

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Meta-cognitive strategies help supervise and adjust learning process through planning, monitoring, analyzing and assessing. Cognitive strategies relate to steps or operation used in problem-solving process that requires direct analysis, deduction or elaboration of learning materials. Social/affective strategies concern the aspect of learners’ cooperation with others and control over negative emotions in the learning process.

Schmitt’s classification presented that there are discovery strategies and consolidation strategies. Discovery strategies is obtaining initial information and understanding the meaning of new words. It has two sub-categories: Determination strategies and social strategies. Determination strategies can be used when a learner meet a new word and discover the meaning. Social strategies describe that learners improve vocabulary by communicating with others or asking others for help. Consolidation strategies refer to social strategies (cooperation with others), memory strategies (relating the new word with some previously learned knowledge), cognitive strategies (language transformation or manipulation), and metacognitive strategies (used to control the learning process) [5].

Nation [6] proposed another vocabulary learning strategy taxonomy. Nation mainly concerns cognitive strategies and memory strategies Table II shows how Nation group vocabulary learning strategies.

| Generic Strategy Classification | Specific Strategies |
|---------------------------------|---------------------|
| Choosing words, choosing the aspects of word knowledge, choosing strategies, planning repetition... | Analyzing the word, using context, consulting a reference source in L1 or L2, using parallels in L1 and L2... |
| Noticing, retrieving, generating... | Articulating the word... |

This paper adopted this category since it clearly presented the three categories in a hierarchical way by stressing the executive function of meta-cognitive strategies. The vocabulary learning strategy is divided into three parts: metacognitive strategy, cognitive strategy, social/affective strategy.

### B. Models of L2 Learning Motivation

Different scholars have different categories of motivation. Gardner and lambert divided motivation into two categories: instrumental motivation and integrative motivation. Instrumental motivation refers to master the language for some practical purposes or needs. It reflects the actual value and benefits of learning a foreign language. Integrative motivation refers to the learner’s desire to learn this language in order to communicate with the target language users. The learner has a strong interest in the culture, history and customs of the target language country [7].

Arnold [8] also put up with two categories of motivations: intrinsic and extrinsic motivation. Intrinsic interest refers to the learning content itself can stimulate the learner’s strong interest. Extrinsic interest refers to motivation exists outside the learning activity itself. For extrinsic interest, language is learned in order to get a reward or avoid discipline. (Arnold, 1999)

Brown [9] divided motivation into three categories: global motivation (learner’s general attitude towards learning); situational motivation (motivations generated by learners in different learning situations); task motivation (motivation generated by specific tasks).

Chinese scholars Gao Yihong [10] also gave different categories of motivation. According to Gao, there are mainly 7 kinds of motivations. Self-development, information medium, social responsibility, intrinsic interest, going abroad, and situational motivation Self-development, achievement, information medium going abroad and social responsibility are instrumental motivations, which regard target language as a tool to achieve specific purpose. Intrinsic interest, going abroad and social responsibility are cultural motivations, which concerns learners’ interest/attention through a culture.

Going abroad and social responsibility are cultural motivations, which concerns learners’ interest/attention through a culture.

### III. METHODOLOGY

#### A. Models of Vocabulary Learning Strategies

The present study intends to explore the relationship between vocabulary learning strategies and L2 learning motivations. Based on the objective of the study, which is to, this research is trying to answer the following questions:

Research question 1: What vocabulary learning strategies do the investigated English majors use?

Research question 2: What are English majors’ main motivations?

Research question 3: What implications can lower grades English majors get in English vocabulary learning?

#### B. Research Methods

This research consists of two separate questionnaires: the vocabulary learning strategies questionnaire and the learning motivation questionnaire. English majors are required to grade each statement on a 5-point Likert scale ranging from 1 representing strongly disagree to 5 standing for strongly agree. The vocabulary learning strategies questionnaire mainly follows O’Malley and Chamot’s vocabulary learning concept and Schmitt’s vocabulary learning strategies.
classification. Altogether 38 questions were asked to examine English majors’ meta-cognitive strategies, cognitive strategies, social strategies and affective strategies. The learning motivation questionnaire was mainly borrowed from Chinese Scholar Gao Yihong (2003).

C. Data Collection and Analysis

“Excellent” English major graduates in 2020 are subjects of this study. This study chose “excellent” graduated English majors because they had formed certain vocabulary learning strategies and learning motivation after years of English learning. These subjects all had been admitted the graduate school of China’s “Double First-Class” universities, which indicates that these subjects are good at English learning, thus investigating their learning strategies and motivations would give some use suggestions and implications to other English learners.

25 English graduates were invited to finish the vocabulary learning strategies questionnaire and the learning motivation questionnaire. 23 learning motivation questionnaire and 19 vocabulary learning strategies questionnaire returned.

In analysis part, firstly, general situation of the learning motivation was introduced. Then, frequencies of different vocabulary learning strategies were presented. Finally, this paper gives some suggestions for lower grade English majors.

IV. RESULTS AND DISCUSSION

A. Analysis of Vocabulary Learning Strategies

As mentioned above, the two questionnaires used a 5-point Likert scale ranging from 1 representing strongly disagree to 5 standing for strongly agree. According to the three frequency levels of Oxford (1990), in the study, the frequency of each strategy used by the subjects is represented by the mean value of each strategy, that is, the larger the mean, the greater the use of the strategy by the subjects, the higher the frequency. The specific relationship is: the mean value in the interval 1.0-1.4 indicates that the subjects “never use this strategy”; the mean value in the interval 1.5-2.4 indicates that the subjects “occasionally use the strategy”; the mean value indicates that the subjects are “in the interval 2.5-3.4” indicates “sometimes use this strategy”; the mean value in the interval 3.5-4.4 indicates that the subjects “usually use this strategy”; the mean value in the interval 4.5-5.0 indicates that the subjects “always use this strategy”.

As shown in Table III English graduates usually use strategies when learning vocabulary since the overall mean exceeded 3.5. Excellent English graduates involve all strategies into the process of vocabulary learning. Among the four types of strategies, cognitive strategies (M=3.633684211) were most frequently used, then followed by meta-cognitive strategies (M=3.6140035088). The high frequency of meta-cognitive strategies indicates that excellent English graduates learns vocabulary actively and have the ability to monitor and plan to remember words. Social strategies had the lowest mean. The investigated English graduates tended to learn vocabulary more independently instead of working with friends together or ask others for help. The specific strategy usage table is as follows:

| TABLE IV: AVERAGE GRADE OF EACH ITEM |
|-----------------|-----------------|-----------------|-----------------|
| Item            | Mean            | Item            | Mean            |
| Q1              | 3.368421053     | Q20             | 3.052631579     |
| Q2              | 3.631578947     | Q21             | 3.210526316     |
| Q3              | 4               | Q22             | 3.947368421     |
| Q4              | 3.368421053     | Q23             | 3.315789474     |
| Q5              | 3.789473684     | Q24             | 3.157894737     |
| Q6              | 4.105263158     | Q25             | 3.578947368     |
| Q7              | 3.421052632     | Q26             | 3.684210526     |
| Q8              | 3.947368421     | Q27             | 3.947368421     |
| Q9              | 3.210526316     | Q28             | 3.684210526     |
| Q10             | 3.736842105     | Q29             | 4.105263158     |
| Q11             | 2.789473684     | Q30             | 3.368421053     |
| Q12             | 3.052631579     | Q31             | 3.736842105     |
| Q13             | 3.947368421     | Q32             | 3.421052632     |
| Q14             | 3.210526316     | Q33             | 3.736842105     |
| Q15             | 3.473684211     | Q34             | 3.736842105     |
| Q16             | 4.052631579     | Q35             | 3.526315789     |
| Q17             | 3.947368421     | Q36             | 3.368421053     |
| Q18             | 4               | Q37             | 3.421052632     |
| Q19             | 3.736842105     | Q38             | 3.947368421     |

As mentioned above, the mean value in the interval 3.5-4.4 indicates that the subjects “usually use this strategy” and “in the interval 2.5-3.4” indicates “sometimes use this strategy”. It is clear shown in the Table IV.2 the least used strategy Q11 (M=2.789473684) exceeded 2.5. All the vocabulary learning strategies were at least sometimes used by English graduates, which indicated that excellent English graduates adopted many different strategies while learning vocabulary. Table 4.2 also shows that Q6 (dictionary strategy), Q29 (encoding strategy), Q16 (contextual guessing), Q3 (selective attention) and Q18 (contextual guessing) got relatively high grades. All these mean grades exceeded 4 points, which means that the at least most of the investigated English graduates basically agree with these ideas. With the same grade of “3.947368421”, Q8 (encoding strategy), Q13 (dictionary strategy), Q17 (note-taking strategy), Q22 (encoding strategy), and Q27 (selective strategy) got high mean grades as well. For other usually used strategies, they were self-assessment strategy (Q26), rehearsal strategy (Q2), contextual guessing (Q5, 10), dictionary strategy (Q19), note-taking strategy (Q31), activation strategy (Q33) inquiry for help (Q25) and cultivating persistence (Q34). These excellent English graduates tended to put vocabulary into application or establish their own vocabulary memorizing structure, instead of simply repeat. This is in accordance with Brown and Perry’s research (1991): Better memory traces are produced at the semantic level than at acoustical and visual levels in processing information.

As shown in Table III, English graduates usually use strategies when learning vocabulary since the overall mean exceeded 3.5. Excellent English graduates involve all
strategies into the process of vocabulary learning. Among the four types of strategies, cognitive strategies (M=3.633684211) were most frequently used, then followed by meta-cognitive strategies (M=3.614035088).

B. Analysis of Learning Motivation

Table V shows that instrumental motivations (M=3.432065217) are the lowest motivation among all the motivation types while situational motivations (M=3.858695652) were the highest. English graduates’ learning motivations were highly influenced by teachers, quality of courses, textbooks and classroom atmosphere. Besides, English graduates’ motivation intensity was relatively high. They consciously create conditions to put what they’ve learned in class into practice. Application is high valued by them. Great efforts were put on English learning.

| Motivations | Mean     |
|-------------|----------|
| Instrumental motivations | 3.432065217 |
| Situational motivations | 3.858695652 |
| Cultural motivations | 3.445652174 |
| Overall | 3.544385965 |

Instrumental motivation consists of “achievement”, “going abroad”, “self-development” and “information medium”. The statistical result is shown in Table VI as below:

| Instrumental motivations | Mean     |
|--------------------------|----------|
| Achievement              | 2.947826087 |
| Going abroad             | 3.326086957 |
| Self-development         | 3.808695652 |
| Information medium       | 3.913043478 |

For English graduates, information medium ranks the first motivation with the mean value of 3.913043478, followed by self-development (M=3.808695652). Achievement has the lowest score. English graduates’ learning is not grade-oriented or test-oriented.

| Cultural motivations | Mean     |
|----------------------|----------|
| Intrinsic interest   | 3.452173913 |
| Social responsibility| 3.434782609 |

From Table VII, it can be seen that the mean values of cultural motivations are lower than the overall mean value which is 3.544385965. English majors did hold cultural motivations whereas the most important motivations for them were situational motivations (M=3.858695652).

V. CONCLUSION

A. Major Findings and Implications

This thesis explored excellent English graduates. According to analysis, the findings can be summarized as follows:

Firstly, regarding the adoption of vocabulary learning strategies by the excellent English graduates, with the least mean value exceeded 2.4, all kinds of vocabulary learning strategies were adopted while learning vocabulary to some extent. Meta-cognitive (M=3.614035088) strategies and cognitive (M=3.633684211) strategies were preferred. What others can learn from excellent English graduates are that vocabulary learning should be more active; and that it is of vital importance to have the ability to monitor self-learning and make study plans.

Secondly, as for the situation of learning motivations, situational motivations (M=3.858695652) were the highest type. With the mean value of 3.432065217, instrumental motivations were the lowest motivation among the three types of motivations. Especially achievement motivation, it was the least held motivation by excellent English majors. This indicates that teachers should pay more attention to not only the content itself, but also the learning situation. Meanwhile, for some conditions, grades are important, but they should realize that learning English is not only for good grades. To explore instrumental and cultural functions of English and consciously reinforce the learning process, learners may get better results.

B. Limitations and Suggestions

Through the study of vocabulary learning strategies and learning motivations, this thesis got some findings, however, it has several limitations.

Firstly, only about 20 English graduates finished the questionnaire, which is not adequate enough to represent the situation of most excellent English graduates. If more excellent English graduates were invited to join the investigation, the data would be more convincing.

Secondly, this paper analyzed learning strategies and learning motivations separately. However, as important factors on English learning, vocabulary learning strategies and learning motivations might have some correlations. The study would be more comprehensive if statistical software was adopted to analyze the correlation.

CONFICT OF INTEREST

The authors declare no conflict of interest in this work. We declare that we do not have any commercial or associative interest in connection with the work submitted.

AUTHOR CONTRIBUTIONS

Jiali Wu conducted the research, analyzed the data and wrote the paper. Jianguo Tian instructed the study and amended and reviewed the research paper.

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