



Investigation and Enlightenment of English Attrition among Senior Undergraduate Cadets

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Abstract. Language attrition is an interesting and important research area. In this study, questionnaire survey method is adopted to explore the patterns of English attrition of senior undergraduate cadets in a domestic naval academy and the impact of foreign affair activities on their English proficiency during their internships and overseas visits before graduation. And some suggestions on ways to prevent or reduce language attrition is put forward based on the research conclusions.

Keywords: Senior Undergraduate Cadets; English Attrition; Foreign Affairs Activities

1 Introduction

Language attrition is the reverse process of language acquisition, which means that the language competence of the bilingual or multilingual users (such as domestic language learners) will gradually decline over time due to the reduction or cessation of the use of a language (such as English).^[1] The researches on language attrition have lasted for nearly half a century, and existing studies have shown that the factors that can lead to the attrition of learners' foreign language ability are: foreign language proficiency before attrition, time duration of attrition, contact with the language, language acquisition mode, social and emotional factors, etc. Hansen found through his research that language attrition is not obvious at first, but rather significant after a long time.^[2] Tomiyama found through research that the rate of attrition of writing and speaking occurs faster compared with the receptive skills of listening and reading.^[3] This study was conducted in the form of a questionnaire survey on the senior undergraduate cadets in a domestic naval academy who participated in internships and visits in the far seas in June, 2023 and aims to reveal the patterns of English attrition of senior undergraduate cadets and the impact of foreign affair activities on their English abrasion during their internship and overseas visits, so as to find ways to prevent or reduce language attrition.

2 English Attrition before the Overseas Internship and Visits

This study, a total of 200 questionnaires were distributed and 185 valid questionnaires were returned. Among the 185 respondents, are 15, 15, 15, 57, 81 and 17 students with "Fail", "Pass", "Average", "Good" and "Excellent" English Proficiency, accounting for 8.1%, 8.1%, 30.8%, 43.8% and 9.2% of the total number respectively.

Overseas internships and visits in the are generally arranged about one month before the graduation of these undergraduate cadets, during which they visit ports of several countries with training ships, and participate in foreign affairs activities with the local military or foreign warships along the way. That is two years from the systematic study of "College English" course (a total of 220 class periods, from the first semester to the fourth semester), and 1.5 years from the 5th semester of professional English (a total of 40 hours). But before the sophomore year, the students continue to learn English (2 times a week for four lessons "College English" course) and endeavor for the CET-4/CET-6, the sophomore year is believed to witness the peak of students' English listening, speaking, reading and writing skills.

2.1 Analysis of the Connotation of Gold Course

This study compared the students' English foundation and the students' self-rated degradation of English ability first. For statistical purposes, this study divides the degradation of English proficiency into 14 situations concerning reading and writing abilities (R/W), and listening and speaking abilities (L/S), namely: 1) from upper to medium level (R/W); 2) from upper to medium level (L/S); 3) from upper to low level (R/W); 4) from upper to low level (L/S); 5) from medium to low level (R/W); 6) from upper to low level (L/S); 7) from low level to near zero (R/W); 8) from low level to near zero (L/S); 9) upper level maintained (R/W); 10) upper level maintained (L/S); 11) medium level maintained (R/W); 12) medium level maintained (L/S); 13) low level maintained (R/W); 14) medium level maintained (L/S).

Only about 23.2% of the respondents indicated that their English reading, writing, listening and speaking skills were maintained , with about 11.6%, 14%, 48.9% and 11.6% of the respondents in the "Fail", "Pass", "Average", "Good" and "Excellent" groups respectively. In order to analyze the relationship between English foundation and English attrition effect more rigorously , the following conclusions were drawn through Pearson correlation analysis (see Table 1).

Table 1. Survey participants' English foundation and English Attrition

English foundation	S1	S2	S3	S4	S5	S6	S7
	0.147 (0.047**)	0.091 (0.219)	-0.019 (0.802)	0.053 (0.471)	0.006 (0.941)	0.063 (0.395)	-0.16 (0.031**)
	S8	S9	S10	S11	S12	S13	S14
	-0.044 (0.551)	0.062 (0.401)	-0.018 (0.804)	0.055 (0.456)	0.131 (0.076*)	-0.185 (0.012**)	-0.203 (0.006***)

Note: ***, **, *stands for the significance levels of 1%, 5%, 10% respectively.

From the correlation coefficient and significance P value of English foundation and attrition effect shown in Table 1, it can be seen that the better the English foundation of the survey subjects is, the easier it is for the students' reading and writing skills to degrade from upper to medium level, but rarely from upper to low level, but if the English foundation is poor, it is easy to degrade from upper to low level, from low level to almost zero, or stay at the low level. In terms of listening and speaking, in general, the correlation between English foundation and English listening and speaking ability is not significant, but the worse the English foundation is, the easier it is to keep a lower level. Considering the described attrition effect occurred within 1.5 years, it confirmed Bahrick's relevant research conclusion, that is, after the subjects stopped using foreign languages, the attrition process is very obvious in the early stage, not obvious in the middle stage, and accelerated in the later stage.^[4]

3 The Impact of Foreign Affairs Activities on English Proficiency

In the 2023 overseas internship and visits, nine types of foreign affairs activities were mainly arranged, including: deck receptions, visits to foreign military facilities, introduction of the training ships to foreign visitors, exercise consultations, VHF communications (during joint exercises), liaison with port authorities or pilots (when entering and leaving foreign ports), stationing in foreign military academies, cultural and sports activities with foreign officers and soldiers, and professional exchanges with foreign officers and soldiers. Among them, the three most participated foreign affairs activities were: deck reception (participation rate of about 80%), visit (participation rate of about 57%), and ship introduction (participation rate of about 35%); The three types of foreign affairs activities with the lowest participation rates were: training (participation rate of about 5%), liaison with port authorities and pilots (participation rate of 5%) and VHF communications (during joint exercises) (participation rate of 7%). In these foreign affairs activities, the only working language is English, and the cadets underwent a lot of challenges in English listening and speaking, but the requirements for English reading and writing skills are not so high.

In order to investigate the impact of foreign affairs activities on cadets' English proficiency, this study divided the impact of foreign affairs activities into three categories,

namely: greatly improved enthusiasm for English learning, and completely restored listening and speaking skills to the best level of sophomore year (A), improved enthusiasm for English learning to a certain degree, but did not restore the English listening and speaking skills to the best level (B), no improvement in enthusiasm or listening and speaking abilities (C), and the percentage of the number of cadets in each level was counted according to the English foundations of students(see table 2).

Table 2. The Impact of Foreign Affairs Activities on the English Proficiency of Survey Subjects

Foun- da- tion Ac- tivity	1 Ty- pe	Impacts			2 Ty- pes	Impacts			3 Ty- pes	Impacts			4 Ty- pes	Impacts		
		A	B	C		A	B	C		A	B	C		A	B	C
Fail (15 cadets)	60 %	55. 6%	33. 3%	11. 1%	40 %	33. 3%	16. 7%	50 %	0%	0%	0%	0 %	0%	0%	0 %	
Pass (15 cadets)	33. 3%	50 %	25 %	25 %	33.3 %	60 %	40 %	0%	33. 3%	40 %	40 %	20 %	0%	0%	0 %	
Average (57 cadets)	21. 1%	66. 7%	33. 3%	0%	33.3 %	26. 3%	63. 2%	10. 5%	24. 6%	57. 1%	35. 8%	7.1 %	21 %	33. 3%	66. 7%	0 %
Good (81 cadets)	27. 2%	45. 5%	50 %	4.5 %	40.7 %	27. 3%	57. 6%	12. 1%	28. 4%	17. 4%	69. 6%	13 %	4.9 %	25 %	75 %	0 %
Excellent (17 cadets)	5.9 %	100 %	0%	0%	35.3 %	66. 7%	16. 7%	16. 7%	35. 3%	33. 3%	66. 7%	0 %	23. 5%	100 %	0%	0 %

It can be seen from Table 2 that respondents with a good English foundation also participated in more types of foreign affairs activities. The respondents with a "fail" level only participated in 1 or 2 foreign affairs activities, while those with a "excellent" level had the opportunity to participate in 2 or 4 foreign affairs activities, and regardless of the foundation, the majority of respondents who participated in these foreign affairs activities perceived positive impacts on themselves.

In order to analyze the impact of foreign affairs activities on students' English proficiency more rigorously, this study again uses Pearson correlation analysis to draw the following conclusions (see Table 3): In general, when the types of foreign affairs activities participated in are less than 3, the impact on students' English level is not consistent, but when the number of foreign affairs activities participated in increases to 3 or 4, their positive impact on students' English proficiency is very obvious (The better the English foundation is, the more significant the impact is).

Table 3. The Relevance of English Fundamentals to Foreign Affairs Activities

	1-A	1-B	1-C	2-A	2-B	2-C	3-A	3-B	3-C	4-A	4-B	4-C
English Foundation	0.61 (0.275)	-0.36 (0.551)	-0.645 (0.240)	0.281 (0.647)	0.127 (0.839)	-0.454 (0.442)	0.319 (0.601)	0.914 (0.030**)	-0.128 (0.837)	0.868 (0.057*)	0.305 (0.618)	0.000 (NaN)

4 Research Conclusions and Implications

From the above research, it can be seen that the English attrition effect of the graduating cadets is very obvious, especially the degradation of reading and writing skills, which has a strong correlation with English foundation, but the degradation of listening and speaking ability is not strongly related to English foundation, but the foreign affairs activities during the overseas internship and visit mission before graduation provides them with opportunities to restore English proficiency to varying degrees. That is: with good/excellent English foundations, the more types of foreign affairs activities they participated, the better their English proficiency will be recovered. This also shows that even in the early stag English attrition with high speed, it is not impossible to reduce or prevent language attrition and restore the English level of the cadets.

On the issue of reducing the attrition effect of undergraduate cadets' English competence, some domestic researchers have put forward many suggestions for reforming university English courses, including paying attention to explicit classroom teaching, focusing on students' literacy skills, reducing the use of mother tongue during teaching, and improving the intensity of English learning^[5]; Rational use of emotional factors to improve students' understanding of society and strengthen learning motivation through reading English newspapers and periodicals; Courses in the field of pragmatics^[6]; strengthening students' listening and speaking training and developing language learning programmes focusing on receptive skills such as listening and reading; Increase after-school language contact and continue language education^[7]; In addition, Wen Qiufang pointed out that the teaching of any English course should aim to require students to complete tasks with real communicative goals, and then let students learn new materials around this goal and complete the tasks step by step and in an orderly manner^[8], so some scholars proposed that the cultivation of productive skills should be increased, as well as the development of second classroom activities, increase opportunities for English use, etc.^[9], and carry out corresponding English teaching activities according to students' majors and English levels^[10].

Based on the above conclusions and the suggestions of other researchers, this study puts forward the following thoughts on reducing and preventing the abrasive effect of English among the undergraduates:

First of all, we should strengthen output-oriented teaching in light of the needs of foreign affairs missions,

In the past college English teaching process, the output-oriented setting of teaching objectives and teaching activities had been realized, but because it was not much related to the actual foreign affairs missions, the sense of engagement was not strong, and the cadets' interests in English learning were not very keen. In view of the positive effects of foreign affairs tasks on students shown in this study, it is recommended to introduce foreign affairs mission cases based on the content of teaching materials, and redesign

teaching objectives according to the types and needs of actual foreign affairs tasks, so as to help students better undertake future foreign affairs tasks, and at the same time also better enhance students' learning motivation and with more fruitful learning results.

Secondly, we should focus on the individual differences of students and consolidate their English foundation

In the past, university English teaching focused on the study of chapter structure and contents, but the basic knowledge of English was defaulted to the knowledge acquired before enrollment. In view of the definite and strong impacts of English foundation on the attrition of English ability, different English foundations should also be taken into account in English teaching, especially the basic pronunciation skills and complicated grammar knowledge should be consolidated. In the case that College English class time is not enough, it is advisable to open elective courses for cadets with weak foundations, and teach according to their aptitude.

Thirdly, it is possible to use the resources of international students on campus to promote cultural and professional exchanges.

In the past, English teaching was confined to classrooms, and language practice was limited to role-playing among classmates. Because there was no real cultural differences and professional knowledge gap, cadets enjoyed little real language use environment and desire to communicate. However, there are many international students from Asia, Africa and Latin America, some of them are undergraduate cadets, and some are naval officers who have served in their own navies for several years, so it is feasible to use these international student resources in the future to create a variety of cultural and professional exchange activities. On the one hand, we can let the students deeply feel the fun and sense of achievement of language communication, and on the other hand, they can consolidate and strengthen language ability in use, and resist the process of English attrition.

References

1. Ni Chuanbin, Yan Junrong. Analysis of influencing factors of foreign language abrasion[J]. Journal of Foreign Language Teaching and Research, 2006, 1:50-55.(in Chinese)
2. Hansen.L.Second Language Attrition in Japanese Contexts[M]. Oxford:Oxford University Pres, 1999,142-153.
3. Tomiyama M. The first stage of second language attrition: a case study of a Japanese returnee[C]. Oxford:Oxford University Press,1999.
4. Bahrck H P.Fifty years of second language attrition:implications for programmatic research[J].The Modern Language Journal,1984,68(2):105-118.
5. Dou Wei. Research on University English Teaching Strategy Based on Language Abrasion[J]. Theories, 2010(9): 153-154,163. (in Chinese)
6. CHEN Yu, HU Fang. Language Abrasion and College English Follow-up Courses[J]. Journal of Heilongjiang Institute of Education,2010,29(6):141-143. (in Chinese)
7. Li Jingshu. Enlightenment of Language Abrasion Research on English Teaching Reform in Colleges and Universities[J]. Journal of Shenyang Normal University (Social Science Edition),2011,35(3):142-144. (in Chinese)

8. Wen Qiufang. Application of output-driven hypothesis in university English teaching: Thoughts and suggestions[J]. Journal of Foreign Languages, 2013(6):14-22. (in Chinese)
9. Luo Jing. Research on College English Curriculum Based on Language Abrasion Theory[J]. Overseas English, 2022(2): 55-56. (in Chinese)
10. Zhao Yingying, WANG Fang. Research on the Second Classroom Teaching of College English Based on Language Abrasion[J].Overseas English, 2019(1): 108-109.). (in Chinese)

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