An Empirical Study on Streaming in English Class

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Abstract

Hosaka (2004a) has revealed that there are six main factors which explain what outstanding English teachers in academic high schools are like. Hosaka (2004b) has also revealed the relationship among the learners’ variables (leaning styles, learning motivations and learning strategies), expectations on their teachers and their achievement in English. In this study, a path analysis was conducted to clarify the difference of the relationship between upper and lower level students. According to the results of the path analyses, the lower class students often use memory strategies to improve their achievement, but in fact these have no significant effects ($p<.05$) upon their achievement in English. On the other hand, the results have shown that the upper class students often use meta-cognitive strategies, which have a strong significant effect upon their achievement in English. In the end, the results mentioned above are discussed in terms of their implications for streaming classes (classified lessons according to their achievement in English), which have recently become very popular in many kinds of schools all over Japan.

1. Introduction

In December 2000 the National Committee on the Reform of Education suggested that streaming should be introduced into elementary, junior and senior schools in Japan as soon as possible in the 21st Renewal Plan on Education. Sato (2003) pointed out that streaming has rapidly spread all over Japan in a few years.

The objective of this study is to clarify how English teachers perform and manage in their English classes, which have been “streamed” according to their achievement in English.
2. Background

Cohen & Dörnyei (2002) state as follows "... and then concentrate on three factors that teachers can actively address to increase the effectiveness of instruction: motivation, learning styles and learner strategies." Skehan (1991) insists that there are some important factors to success in language learning: aptitude, motivation, learning styles and learning strategies.

Horino & Ichikawa (1997) have revealed the relationship among motivation, learning strategies and achievement: Motivations \( \rightarrow \) Learning strategies \( \rightarrow \) Achievement. Kawai (1999) shows the functional equation to show the same relationship at a glance as follows: \( F(\text{motivations, learning styles}) = \text{learning strategies} \).

Hosaka (2004a) made an empirical study of the professional skills of outstanding English teachers of academic high schools. According to Hosaka (2004a), there are six factors to explain what outstanding English teachers are like. They are as follows; teachers who give good lessons to ensure students will pass entrance exams, who are knowledgeable and cultured, who give student-centered lessons, who treat students with counseling mind, who are strict on students in class, but can improve their achievement in English and who speak English fluently.

Hosaka (2004b) also clarified to what extent some factors of language learners (learning styles, motivations and language learning strategies) have influenced their expectations of their teachers and their achievement in English. According to the multiple regression analysis, five out of six factors explaining what students believe outstanding English teachers to be, are influenced by these individual variables of language learners. However, the strength of these influences is not so high. Hosaka (2004b) has summarized the results of the multiple regression analyses, depicting the path diagram (Figure 1). The abbreviations used in Figure 1 are as follows.

Motivations: M1 (Intrinsic Motivation, Knowledge), M2 (Intrinsic Motivation, Fulfillment), M3 (Extrinsic Motivation, Control) and M4 (Amotivation)

Learning Style: Style 1 (Project, active), Style 2 (Individual, active), Style 3 (Group-participation), Style 4 (Project, passive) Style 5 (Individual, passive) and Style 6 (Dependence)

Learning Strategies: L I (affective cognitive), L II (meta-cognitive), L III (memory) and L IV (social cognitive)

Expectations on teachers T1 (Exams), T2 (Knowledge), T3 (Student-centered class), T4 (Counseling mind), T5 (Strictness) and T6 (Proficiency)

At first glance, the diagram (Fig. 1) shows that the relationship is very complicated. Hosaka (2004b) suggested that more detailed research should be carried out to clarify these influences; for example, comparative research between upper and lower level students.
3. **Objectives**

The objectives of the present study are
1. To clarify what kinds of factors, and to what extent the factors of upper level students have influenced their expectations of their teachers and their achievement in English.
2. To clarify what kinds of factors, and to what extent the factors of lower level students have influenced their expectations of their teachers and their achievement in English.
3. To clarify the differences of the path diagrams between the two levels of students to reflect the aforementioned influences.

4. **Method**

4.1. Participants

I carried out some research to the same 11th grade students, as Hosaka (2004a) did. The reason why I chose only the second-year students is that the results, by analyzing the data of the first year students are very similar to those of junior high school students. Furthermore, through analyzing the data, the results of the third year are generally influenced by entrance exams. The population of my chosen group is 167.

4.2. Upper class and lower class

I adopted the scores of the students in English II at the end of the second school year since the scores could be regarded as representative of how well they have done in English II throughout the whole year. The average \( \bar{x} \) is 52.18 points (full is 100 points) and the SD (Standardized Deviation) is 17.75 points. The maximum is 96 and the minimum is 16. I divided the whole population into three groups, according to the average and the SD. The upper class is generally more than \( x + SD/2 \) and the lower class is generally less than \( x + SD/2 \). The upper class ranges from 61 to 96 and the population is 57. The lower class ranges from 16 to 42 and the population is 52.

4.3. Multiple Regression Analysis

To remain theoretically consistent with the earlier researches (Horino & Ichikawa, 1997; Kawai, 1999; Hosaka, 2004b), I used a multiple regression analysis at three stages to assess which combination of individual factors best predicted their expectations of teachers or their achievement in English.

1st stage: Multiple Regression Analysis 1; (motivations, learning strategies)

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\text{→ learning strategies}
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The dependent variables were factor scores calculated from the previous factor analyses.
Hosaka (2004b) conducted on motivations and leaning styles. The independent variables were also factor scores calculated from the previous factor analyses Hosaka (2004b) conducted on leaning strategies.

2nd stage: Multiple Regression Analysis 2; (motivations, learning strategies, learning strategies) → expectations on teachers

The dependent variables were factor scores calculated from the previous factor analyses Hosaka (2004b) conducted on motivations, leaning styles and learning strategies. The independent variables were also factor scores calculated from the previous factor analyses Hosaka (2004b) conducted on expectations on teachers (6 factors mentioned above).

3rd stage: Multiple Regression Analysis 3; (motivations, learning strategies, learning strategies, expectations on teachers) → scores of English II

The dependent variables were factor scores calculated from the previous factor analyses Hosaka (2004b) conducted on motivations, leaning styles, learning strategies and expectations on teachers. The independent variables were scores the students earned in English II.

5. Results

5.1. Upper level students

The results of three multiple regression analyses are summarized in Figure 2. The figure tells us four interesting results below.

1. The prominent positive effect on T5 (strictness) is M2 and Style 2, but the negative effect is SIII (memory strategy). The upper class students whose intrinsic motivations with fulfillment are high and whose leaning styles are positive individual want English teachers to be strict. On the other hand, the upper class students who often use memory strategies don’t like English teachers to be strict.

2. The prominent negative effect on score is T3 (student-centered lessons). Moreover, the strong positive effect on T3 is Style 3 and Style 4. The students whose learning styles are group-participated and project centered, yet passive, prefer English teachers who don’t teach too fast, or who wait for students to understand, but their achievements are generally not so good among the upper level students.

3. The prominent positive effect on score is SII (meta-cognitive strategy). Moreover, the strong positive effect on SII is Style 1 (project, active). The upper class students whose learning styles are active projected and who often use meta-cognitive strategy do well in English lessons.

4. The prominent negative effect on scores is M3 (extrinsic, control). The upper level students
don’t want to be forced to learn English.

5.2. Lower level students

The results of three multiple regression analyses are summarized in Figure 3. The figure tells us five interesting results below.
1. None of the factors have significant effect on achievement in English(scores) (p< .05).
2. The prominent positive effect on T5(strictness) is SIII(memory strategy).
3. The prominent negative effects on T5(strictness) are SIII, SIV and M4(Amotivation).
4. The negative effect on T6(proficiency) is Style 5(Individual, passive).

6. Discussion and Conclusion

Judging from the results above, we can obtain interesting results to make streaming classes more effective, or to cultivate elementary level students up to advanced level.
1. In the class for upper level students, we must pay attention to the fact that T3(student-centered lessons) can lead to spoiling them. The instructions concerning T3 are as follows; to teach slowly, to wait for students to understand, to describe meanings in detail, to ascertain whether all the students understand or not, and to review the last lesson. We also must pay attention not to force them to study English.

Moreover, we should include projects wherein the students actively participate. We should improve the meta-cognitive strategies the students have in our English class.
2. In the class for lower level students, we must pay attention not to be too strict on the students. On the other hand, we should admit that some of them would like their English teachers to be strict in order to memorize the basic important points of English lessons.
3. It makes a big difference between upper and lower level students what strategy they use. We should do our best to improve their meta-cognitive strategies in order for them to be better learners of English.

In the future further research should focus more detail on some other variables with relation to second language acquisition; language learning anxiety, self-esteem, field independence and so on.

References


保坂芳男 (2004b). 「学習者の個性に応じた指導のあり方に関する実証的研究 (1)」『第30回国語教育学会長崎研究大会発表原稿』


Fig.1. The path diagram of the whole of students
\( n=167, \text{**** } p < .001, \text{ *** } p < .005, \text{ ** } p < .01, \text{ * } p < .05 \)
Fig. 2. The path diagram of the upper level students
(n=57, **** p<.001, *** p<.005, ** p<.01, * p<.05)
Fig. 3. The path diagram of the lower students

( n=52, **** p<.001, *** p<.005, ** p<.01, * p<.05 )