

影の教育と学校教育：教育の正当化機能

に注目して

Shadow Education and Mainstream Schooling: A Review of Legitimate Function of

Education

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March, 2017

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Chapter 1 Introduction

The increase in student population led to the increase of out-of-school private tuition worldwide. In academic terms, this sort of tuition is called Private Supplemental Tuition, or shadow education (SE). Private supplemental tuition is called *shadow education* because it mimics contents of mainstream schooling. When state curriculum is edited by authorities, the curriculum of shadow education correspondingly changes. Not only is the shadow education curriculum influenced by mainstream curriculum, shadow education supplement state curriculum (Bray & Lykins, 2012)

The objective of shadow education is to enhance student's academic skills within mainstream schooling, namely, remedial purpose (Stevenson & Baker, 1992). This tuition is beneficial for slow learners to help keep up with the class. For parents, this sort of tuition is helpful to manage homework and reduce related stresses (Bray & Lykins, 2012).

Another objective of shadow education is to further the learning of high achievers (Stevenson & Baker, 1992)

Preliminary literature have discussed the impacts of shadow education. The first or dominant argument is whether shadow education can enhance academic achievement. The second argument discusses whether shadow education widens educational inequity, while

the third argument examines if shadow education undermines the quality of mainstream schooling. In the field of shadow education, academic enhancement and educational inequity are frequently discussed around the world. However, little research have been done to examine the relationship between mainstream schooling and shadow education. Some research (Kim, 2010) discovered that private tuition can make mainstream schooling unnecessary, undermining the authority of mainstream teachers in the qualitative analysis (Tansel & Bircan, 2006); evidences as well as quantitative data are globally lacking, particularly in Japan.

If shadow education undermines the quality of mainstream education, this is a serious issue because that means shadow education could weaken the legitimate function of education. This research, therefore, attempts to examine how shadow education can undermine the legitimacy of formal schooling by inquiring students' perspectives on formal school lessons and shadow education.

Chapter 2 Literature Review

2-1 Difference of Shadow Education around the World

Systems, and content of shadow education differs by region. In East Asian countries such as Japan, South Korea, Hong Kong, and Taiwan, private tuition is a common practice for students as it has a long history and is deeply embedded in each culture. Bray (2009) explains this is partly because of Confucian traditions, which value education and stress diligence. In South Korea, it is called hagwons. In Japan, its counterparts has been called *juku* (Hojlund, 2006). It has been widely accepted for both remedial and further enhancement of the learning purpose. However, in earlier decades and centuries, the demand for shadow education was modest, simply because the opportunities were limited to only wealthy households. In earlier decades, shadow education was more accessible to wider spectrum of social stratification (Bray, 2012).

In South Asia, some teachers gained extra income by providing private sessions for students who were already members of his or her regular classes (Bray, 2012). In former Soviet countries and Eastern Europe, shadow education had not been accepted until the early 1990s, but great supply for shadow education rose after the economy collapsed, since it became necessary for mainstream teachers to earn extra income through tutoring to

escape from poverty line. Similar pattern of tuition is observable in Africa. Recently teacher put more emphasis on revenue-generating opportunities in the education system (Bray, 2012).

In contrast to previous examples, the demand for shadow education in Western Europe, North America and Australasia remains modest. However, its needs are gradually expanding and policymakers are realizing its impacts as well. Some governments encourage tuition to help slow learners to catch up with schooling (Bray & Lykins, 2012).

2-2 Demand and Supply of Shadow Education around the World

As the shadow education differs by region, so does the demand and supply.

Demands for shadow education is remarkable in East Asian societies, such as Japan, South Korea, and China. East Asian countries share a culture that puts high value on Confucian tradition, competitiveness, education, and diligence (Kim, 2010).

In Japan, a 2007 national survey found that 15.9% of primary 1 pupils received tuition, and 65.2% of primary 3 did so. In addition, 6.8% of Junior Secondary 3 pupils received tutoring at home and 15.0% followed correspondence courses (Bray, 2009).

In South Korea, families with children in higher achieving schools spent substantially more money on shadow education (Lee & Shouse, 2011). In China, a study revealed that 55% of

urban households in China invested supplementary lessons (Xue & Ding, 2008). Another survey has reported that 75% of Grade 9 pupils received tutoring, 29% of Grade 12 students received tutoring for English and Mathematics and 12% in Chinese (Zhang, 2014). In Hong Kong, considerable portion of expenditures are invested in commercial tuition companies. These companies promote their service by utilizing advertisement and appealing the picture of attractive star tutors (Kwo, Ora, Bray, 2014).

In contrast to East Asia, South Asia and former Soviet countries differ in condition. In Azerbaijan, Mongolia, and Ukraine, and countries such as Cambodia, students reported that some teachers pressured them to take tutoring by favoring students who attended their tutoring classes, or threatened students with a low grade if they refused the tutoring sessions (Silova, 2010).

There are some common features of demand for shadow education. First, students from a high income household, where parents are educated and often reside in urban settings, are more likely to receive tutoring (Zhang 2014). Another driver of demand for tutoring, particularly where enrolment rates are high, is the fear by students and families that they might lose out in competition if they do not invest in tutoring. This situation creates emotional stresses and financial burdens (Bray, 2012)

2-3 Types of Shadow Education

Types of Shadow education can be classified into two main categories. One type of shadow education is market-supplied tutoring, or self-employed tutoring, and the other is tuition from mainstream school teachers. Market supplied tutoring delivers more variety of services compared to its counterpart. It ranges from individual tutoring to large tutoring classes. Tutors also vary from college students, professional tutors, and mainstream teachers or retired teachers. Some of them are employed in large enterprises, while the other are self-employed (Bray & Lykins, 2012).

A considerable proportion of students, receive tuition from mainstream teacher who also works at tuition center. In some situation this results in corruption or blackmail. Zhang describes that high respect for school teachers and their monopoly of power over their students allows this kind of tuition (Zhang, 2014).

2-4 Impacts of Shadow Education

Past literature has examined how shadow education influence society in multiple dimensions. This section will review the points discussed in the field of shadow education : (1) whether the shadow education actually enhance academic achievement of

students (2) whether shadow education can widen social inequity (3) whether shadow education overwhelms the quality of mainstream education.

2-4.1 Academic Achievement

Does shadow education actually enhance academic achievement? Some research have revealed that shadow education do enhance students' academic performance. One measure of impacts is that shadow education could directly enhance test scores. According to Buchman, students who took SAT-prep sessions scored 30-40 points higher than those who did not (Buchmann, Condron, & Roscigno, 2010). In Taiwan, by utilizing propensity scores, Kuan revealed that at the secondary 1 grade, students, power of academic enhancement brought by cram school is slightly observable. However, students who are less likely to go to cram school (i.e students with low math scores and whose parents have low academic credentials) are more likely to improve academic achievement than those who are more likely to go to cram school (Kuan, 2011). Moreover, utilizing propensity scores again, it was revealed that males who are more likely to go to cram school are more likely to go to higher-ranked schools than those who do not, while females who are less likely to go to cram school are more likely to go to higher-ranked schools (Nakazawa, 2013).

Other measure is students' self-reports that tuition improved their scores. In China, a research was conducted on secondary students in Hong Kong, asking them to evaluate the effectiveness of tuition. Most respondents answered that private tuition has improved

their examination grades, relationship with school teachers, confidence in examination, revision skills, confidence in school performance, and learning strategies (Bray, 2012).

2-4.2 Inequality and Social Cohesion

It has been a major argument that shadow education widens social stratification, and brings about educational gap. Most forms of private tutoring evidently exacerbate social inequalities since high-income households are more capable of affording greater quantities and better qualities of tutoring compared to low-income households. Past literature argues this concept from a range of perspectives, such as gender, race, ethnicity, income, parental academic credentials, location, etc., and numerous empirical evidences were found.

Gender is related to inequity brought by shadow education in some countries. It is common for households in patriarchal societies to invest more on education for males than females. According to Tansel and Bircan (2007), in developing countries, female students are more likely to stay behind males in academic achievement. In Turkey, economic returns in women's education were just as high if not higher than that of men's education. Nonetheless, parents tend to invest more in their male offspring's education than that of their female offspring because society primarily considers the sons as the main providers of financial support for the parents' lives after retirement.

Location is a significant factor of educational gap. Preliminary literature revealed that urban areas offer more options for private tutoring than rural areas. In Kazakhstan, availability of tutoring was 24% greater in urban area than in rural areas (Silova, 2007). In India, 64% of lower secondary pupils in urban areas received private tuition, while only 24.2% of counterparts in rural area received tuition (Sujatha, 2011).

Race and ethnicity are also significant measures of access to shadow education. Bray (2009) reported that in Vietnam in 1997-1998, 37.0% of ethnic majority students at primary level received tutoring, while only 7.1 percent of ethnic minority students did. Furthermore, at the lower secondary level, the proportions were 60.7 and 19.0 percent, respectively; at upper secondary level, 78.0 and 55.9 percent of students received tuition. Thus, opportunities of tuition are generally more accessible for ethnic majority groups.

Income gap also indicates the different opportunities for tuition. In South Korea, the upper 10% of the income earners spent an average of 292,000 won a month on private tuition, while the bottom of 10% of them spent 36000 won a month in 2005 (Dawson, 2010). The results indicate that wealthy parents tend to spend more money on private tuition than average or lower than average income families. Furthermore, attendance rate for cram school can be specified depending on income background. From the top 10%

income families, 29.8% of children go to cram school, whereas among the poorest 10% income family, only 9.2% of students attend. Buchmann (2010) also reports that the attendance of SAT preparation courses also depend on family background. High school students from advantaged families tend to take commercial prep-courses; and attending these lessons usually generated higher SAT scores, which increased the likelihood of admission to selective higher education institutions in the United States.

2-4.3 Undermining Authority and Quality of Mainstream School Classes

A number of literature have discussed how shadow education impacts mainstream school. One of the impacts is the anxiety brought by shadow education that mainstream school only is not enough for entrance examination. Kim (2003) reported that South Korean hagwon, that is, cram school, uses the prevailing approach of “sun-haeng-hak-seup”(learning-in-advance), in which the hagwons teach the formal education curriculum in advance of public schools. Hagwons teach students for 2 months during the vacation before the beginning of the academic year, during the school term they teach the curriculum at a more rapid pace than the school, and then they review material during the exam period. This learning-in-advance approach is an effective strategy to ease anxiety in students and parents who attend cram school, and at the same time, causing anxiety in

students and parents who has not yet registered cram school and are lead to be future customers (Kim, 2003). Kim goes on to report that attending private tutoring has the effect of increasing math anxiety in 39.4% of students and 37.1% of students answered that attendance in cram school has made them more competitive among friends.

Shadow education has also brought about corruption in mainstream schooling. In some countries, most private supplementary tutoring has been provided by mainstream teachers who already have responsibility for their pupils. This arrangement could result in blackmailing or corruption in the system. For instance, Cambodia has been struggling with civil service corruption in the education system. A 2005 corruption study found that corruption in the public education sector accounted for US\$37 million per year, which is about 55% of the total corruption in public services in Cambodia (Bray, 2009). Corruption occurs when teachers intentionally hide portions of the curriculum during mainstream lessons to deliberately create a need for private tutoring.

Teachers have decision-making authorities on promoting students to the next grade. Because parents want to avoid repeating grades, they pressured into sending their children to out-of-class tutoring and pay substantial fees. Shadow education also undermines the quality of mainstream schooling indirectly. One of the most problematic aspects of shadow education is that private tutoring is perceived as a substitute for mainstream schooling. In some countries, mainstream schooling less effective to survive in high-stake examination. For instance, in Turkey, some pupils ask for fake medical notes to excuse themselves from

school to attend cram schools instead. Students concentrate more on attending the private tutorial centers and their preparations at home rather than attending mainstream classes, and this has become widely accepted and process. In 2005, the Turkish Union of Educators conducted a survey to 1,078 senior high school students and 1,073 high school graduates. When asked how preparation for examinations affected school attendance, 55 percent of the senior high school students and 49 percent of high school graduates stated they had sought false medical reports (Tansel and Bircan, 2007). Similar patterns are seen in Azerbaijan. Kazimzade (2007) reported that, especially in the last grade of secondary school, students commonly skip classes to attend private tutoring lessons during school hours. Some students even pay bribes to school authorities to be excused from school while still being marked as present in the school registry, so that they can attend the private lessons. Furthermore, Kazimzade (2007) observed that at during entrance exam seasons season school classrooms are practically empty because most pupils are receiving out-of-school tutoring. The intensity of private tutoring may also affect pupils' concentration spans. In South Korea, Kim (2007) reported on the effect of tutoring for the entrance to special purpose high schools (SPHs). Pupils often perceive tutorial centers to be offering more relevant material for entrance exams, compared to mainstream education. Since tutorial centers are extremely demanding, pupils sleep during their mainstream school time. The pupils themselves recognize this that they do not study hard in class. Many of them speak loudly, sleep during class, do private institute's homework or study other things in need for passing entrance examination of the university. Often times students sleep during English class because they already know the content, and the teachers are aware of the fact

(Kim, 2007). Teachers face great disparities in academic achievement when there is an immense gap within pupils regarding the knowledge of the content. While supplementary tutoring can enhance learning of regular lessons, it can detract from learning and teaching during the normal school hours. More problematic situations occurs when teachers neglect their mainstream classes because they know that students will receive tutoring (Bray, 2009). Also, children who spend many hours in supplementary lessons may be exhausted and operate ineffectively in regular lessons. Children may pay more attention to tutors whom their families are directly paying money than to their teachers who seem to come not only free of charge but also as an imposition (Kwo, 2014).

2-5 School Education System and Shadow Education in Japan

2-5.1 Overview of secondary school in Japan

The phenomena of shadow education reflects complex social context of each country. Before digging into shadow education, this section will make a quick overview of secondary school in Japan.

2-5.2 Japanese educational background.

Culturally, Japanese employers tend to put higher values on academic credentials compared to their foreign counterparts (Hirst, 2013). From an economic or political aspect, Japan makes a relatively small investment on education. Recent economic data from OECD indicates that government spending on education is significantly low. Dawson (2010) indicates that Japanese government public expenditure on education is the lowest in

OECD. However, private expenditure from households is remarkably high in Japan. This data shows that individual households compensate for the lack of insufficient governmental funding on education with their private expenditures (Hirst, 2013).

Japanese secondary schooling is significantly influenced by macro-factors such as culture, politics, and economics discussed previously. Recalling that academic credentials are highly valued in society, and both parents and children strive for gaining higher academic achievement.

Much like a university, there is a hierarchy for secondary schools. Secondary schools in Japan are evaluated by factors such as educational expectations for students, curricular experiences, and number of graduates who entered prestigious high schools or universities. This evaluation is represented as a hierarchical academic ranking system.

Even in small school districts, public high schools are often forced to be included in the academic ranking system. Attending higher ranked high schools will significantly enhance the likeability of advancing to renowned universities (Matsuoka, 2013). Past literature has revealed that students with higher socioeconomic status (SES) are more likely to proceed to top-ranked schools or universities, and students at low-ranked schools rarely enter competitive universities.

There are three types of secondary schools in Japan, which are private, public and national. It is evident that private secondary schools require relatively higher educational fees than public secondary schools. During 1984 to 2002, private school costs have increased almost 6 times as much as public school cost. This tuition gap between private and public continues to expand (Nishimura, 2006).

2-5.3 In-school supplemental lessons (Before/After School Lessons)

Some secondary schools, regardless of private or public, offer supplemental school-provided lessons. Supplemental school-provided lessons are free of charge, in contrast to paid lessons in the shadow education industry. These lessons are provided to increase academic performance. This provides free opportunity to gain extra learning opportunities. A study revealed that students with higher academic attitude are more likely to attend the free lessons (Matsuoka, 2013).

2-5.4 Demand for Shadow Education in Japan

Shadow education in Japan, often called *juku*, and has about one hundred years of history. However, the demand for *juku* drastically increased in last few decades. *Juku* has grown into a \$US-12-billion-dollar-a-year industry (Dawson, 2010). 15.9% of first-graders attend cram school (*juku*), while those who take *juku* in grades 8 and 9 amount to 59.9%

and 65%, respectively. Also, approximately 0.2% of GDP is consumed for shadow education (Hirst, 2013).

Past literature have examined the purchasers of private supplementary tuition.

Matsuoka (2014) found out that students in high-SES schools are more likely to seek extra instructional lessons outside their public or private high schools than those in schools of lower SES, and higher SES students are more likely to take shadow education lessons.

2-6 Private Supplemental Lessons: *Juku*

Juku is a cram school designed to help students pass examinations for prestigious high schools and universities. Students attend their regular mainstream school and then go on to an supplementary tuition centers for extra study, then return home for evening meal (Dolly, 1992). *Juku* industries have provided diverse style of tuition to meet public needs, for instance, preparatory *juku*, supplementary *juku*, comprehensive *juku*, home tutoring agencies, drill *juku* (McClean, 2009).

2-7 Impacts of shadow education in Japan

Following the impacts of shadow education in the former section, this section will review the points discussed in the field of shadow education around the world :(1) whether the shadow education actually enhance academic achievement of students(2) whether

shadow education can widen social inequity (3) whether shadow education overwhelms the quality of mainstream education.

2-7.1 Academic Achievement

It is widely argued whether *juku* can enhance academic achievement. Some research revealed that *juku* can enhance academic performance. Dolly (1992) contends that in *juku* students can increase test performance by developing test-taking strategies. In Japan, a study revealed that students who go to cram school and those who do not go to cram school have significant differences in test score (Kariya, 2008). Nishimura(2007) adds to point out that this disparity has been widened after introduction of relaxed education reform. A quantitative research developed a comparison of academic performance between students who attended cram school and students who did not.

This study revealed that pupils going to cram school had better math scores than pupils who do not (Mimizuka, 2007). Maclean (2006) also conducted a survey to students in university reflecting on cram school experiences, and the study revealed that participants who studied mathematics at academic *juku* were 2.35 times more likely to think that their lower secondary school mathematics lessons were easy compared to those who did not study at academic *juku*. These data indicate that cram school being the primary reason behind improvements in academic performance. However, some studies at the same time

have made counterarguments. While some evidences showed that students going to cram school has relatively higher academic performance in test scores, Nakazawa (2013) points out that it is difficult to conclude that experience of cram school directly enhanced the academic performance. He contends that though parental socio-economic status may be related to motives for investment in cram school and enhancement of academic scores, it cannot be concluded that cram school itself enhanced academic achievement. Although having a control group that does not go to *juku* and a control group that goes to *juku* is crucial to measure the impacts of *juku* on academic performance, it is practically impossible. So Nakazawa (2013) used the propensity scores that compare similar group of people who went to cram school and who did not. This study revealed gender difference. Academic achievement is likely to be improved when males who tend to go to cram school go to cram school, and when female who does not tend to go to cram school go to cram school. Nakazawa (2013) concluded that students who tends to go to cram school does not enhance academic achievement if they go to cram school.

2-7.2 Inequality and Social Cohesion

Literature has discussed how *juku* has brought about inequity and social cohesion.

The most shared belief is that mainstream schooling is not enough to prepare for entrance

examination, and therefore *juku* is a requisite for entering top rank universities and high school. Dolly (1992) contends that middle and upper classes can afford extra schooling in private tuition, but poor parents are unable to provide. Where a student lives and how much parents can afford to spend for private tuition often means whether or not the students reaches the freshman class of a top university. In addition, Dolly (1992) insists that state curriculum in mainstream school does not fully cover the content of entrance examination. Because the content covered by these examinations is controlled and highly varied, it is impracticable for the mainstream education system to fully prepare students for these exams. Therefore, students aiming to enter the private university system must attend *juku*, whose teaching is tailored to specific examinations (McLean, 2009).

The ability to reach the opportunity of tuition differs. Educational inequity is brought about by geographical factor. Mimizuka (2007) revealed that in the small local city, the differences of academic achievement between social classes were relatively small. However, in the middle-sized city within the metropolitan area, children's academic achievements were affected by the level of monthly educational expenses, level of educational expectations of the child, and income level of the family.

Other factor to utilize private supplemental tuition is academic credential and carrier of parents. Some study shows that father's education is significantly correlated with parental commitment to their children's education as well as children's academic achievement (Kariya, 2008). Nishimura (2006) also conducted a study that revealed father's occupation such as individual proprietor or manager, is related to how much private supplementary education they invest in.

2-7.3 Undermining Authority and Quality of the Mainstream Class

Since the content of mainstream schooling and entrance examination has a huge gap, some researchers concern that such private supplemental tuition overwhelms mainstream schooling.

One concern is that *juku* will give students the perception that mainstream schooling is less worth attending than *juku*, and this perception can deteriorate the mainstream schooling. Hirst (2013) contends that *juku* employs strategy called learning by advance, whereby students learns the content taught in mainstream school several months prior in *juku*, and this threatens the authority of the mainstream schooling because *juku* can transform mainstream education into a place in mandatory revision. Mclean (2006) conducted a study that students' perception of lower secondary school and *juku*. The

results showed that 62% percent of the participants that studied mathematics at academic *juku* said that their mathematics lessons at academic *juku* were more interesting than their mathematics lessons at lower secondary school. Brophy (1981) conducted a study on teacher effectiveness, and findings showed that the way teachers perceive their role as a teacher was crucial to student success. Teachers who felt that their instructional role is primary were more likely to be successful. Also, Hirst (2013) insists that attendance to *juku* prevent students from participating in extracurricular activities, causing to lose opportunity of whole person education.

Chapter 3 Methodology

3-1. Research Questions

In order to see whether and how shadow education overwhelms the authority and quality of mainstream schooling, this paper put mainly two research questions.

First, does the experience and perception of private supplemental tuition relate to the behavior of mainstream schooling? Kwo (2014) reported students who sought opportunity of private supplemental tuition answered that mainstream schooling is not enough to prepare for entrance examination, and a study (Kim, 2010) in Korea revealed that students who thinks private supplemental tuition are more relevant than mainstream schooling, tend to sleep during class, do homework assigned by cram school, and to make a mess in mainstream class. However, again this relationship has not empirically examined in the past literature.

Second question is, who is more likely to be detached from mainstream schooling . A study shows that students in local area are more likely to form deeper relationship than students in urban area because opportunities for private supplemental tuition is relatively fewer in local areas (Arikai, 2011), so it can be inferred that disparity of mainstream authority between local and urban area may exist. Furthermore, Matsuoka (2013) reported

that students from higher socio-economic status, and students in higher-ranked school are more likely to seek private supplementary tuition. Therefore, it can be inferred that students' socio-economic status such as academic test score, school rank also exists.

3-2 Procedure

To see what factors are related to commitment to mainstream schooling, this research conducted a case study in one of top-ranked private university in Tokyo. This research will ask students about how they perceived private supplementary tuition and were detached from mainstream activity by filling in questionnaire. Because of limited time and resources, the author employed single-extraction sampling. Participants are asked to fill in questionnaire and reflect back to 3rd grade in their upper secondary school since students are more likely to receive private tuition at transition point in education system (Zhang, 2014), and asked the perception and detachment from mainstream schooling. In addition, the researcher distributed both paper questionnaire to students on campus, and used web-questionnaire online. 169 valid responses from paper questionnaire, and 95 valid responses from web questionnaire were collected. The targeted university's admission policy and examination process are relatively different from other university, and the sample is likely to include students with higher academic achievement. Overall, 264 usable

questionnaire were sampled. For statistical reasons, some responses were excluded because of following reasons; (1) not all questions were answered because some students did not notice all questions, or did not want to answer some questions like gender, and name of upper secondary school (2) in order to calculate hensachi score, students from only public, private, and national upper secondary school are sampled, and international schools are excluded.

3-3 Models

$$\text{avedetachmain} = \beta_0 + \beta_1 \text{female} + \beta_2 \text{city} + \beta_3 \text{geneentexam} + \beta_4 \text{private} + \beta_5 \text{tutorpercep} + \beta_6 \text{hensa} \quad (1)$$

$$\text{talk} = \beta_0 + \beta_1 \text{female} + \beta_2 \text{city} + \beta_3 \text{geneentexam} + \beta_4 \text{private} + \beta_5 \text{tutorpercep} + \beta_6 \text{hensa} \quad (2)$$

$$\text{sleep} = \beta_0 + \beta_1 \text{female} + \beta_2 \text{city} + \beta_3 \text{geneentexam} + \beta_4 \text{private} + \beta_5 \text{tutorpercep} + \beta_6 \text{hensa} \quad (3)$$

$$\text{othermaterials} = \beta_0 + \beta_1 \text{female} + \beta_2 \text{city} + \beta_3 \text{geneentexam} + \beta_4 \text{private} + \beta_5 \text{tutorpercep} + \beta_6 \text{hensa} \quad (4)$$

$$\text{late} = \beta_0 + \beta_1 \text{female} + \beta_2 \text{city} + \beta_3 \text{geneentexam} + \beta_4 \text{private} + \beta_5 \text{tutorpercep} + \beta_6 \text{hensa} \quad (5)$$

$$\text{absent} = \beta_0 + \beta_1 \text{female} + \beta_2 \text{city} + \beta_3 \text{geneentexam} + \beta_4 \text{private} + \\ \beta_5 \text{tutorpercep} + \beta_6 \text{hensa} \quad (6)$$

The researcher provided 5 models. In the first model, *avedetachmain* indicates that average score of frequency of sleeping during class, of doing other materials irrelevant to class, of private talks. For each questions, the scale ranges from 1~4. In terms of independent variables, *female* is a binary scale (0=male, 1=female). *City* is also a binary scale (0 = rural, 1 = city). *Genentexam* indicates binary scale (1 = entrance style except general entrance examination, 1 = general entrance examination). *Avetutorpercep* is a continuous scale that averages the degree of how much students prefer tutors lessons to mainstream classes, and answers' scale ranges from 1~4. Detail of this scale is shown in the next section. *Hensa* is also a continuous scale that shows academic achievement of upper secondary school the respondents belonged to. Among model 2 to model 6, only dependent variable is exchanged. Second, third, fourth dependent variables, are ordinal scales ranging from 1~4. Fifth and Sixth dependent variables are also ordinal scales ranging from 1~5.

3-4 Dependent Variable: Detachment from to Mainstream Schooling

Dependent variable is the detachment from mainstream schooling. The author originally created four ordinal scales: (Model 2) frequency of sleeping during class, (Model 3) frequency of doing other materials irrelevant to class, (Model 4) frequency of private talks during mainstream class, (Model 5) frequency of being late in class during mainstream class, and (Model 6) frequency of being absent from mainstream classes. These scales were extracted from Kim (2007). The answers of question (Model 2), (Model 3), (Model 4) are based on scale of 1= Strongly disagree, 2= Disagree, 3 = Agree, 4= Strongly agree. Also, the answers of questions (Model 5), (Model 6) are based on scale of 1 = Never, 2= Once or twice in a year, 3= Once or twice in a month, 4= Once or twice in a week, 5= More than once or twice in a week. Lastly, (Model 1) average commitment to mainstream school is calculated by averaging (Model 2), (Model 3, Model 4) scales, ranging from 1~4.

3-5 Independent Variables

Gender: Past researchers, for instance, Nakazawa (2011) have revealed gender disparity in access or impacts of academic enhancement through private supplemental

tuition. The author hypothesized that commitment to mainstream class is related to gender, and created *female* dummy (0 = male, 1 = female).

Location of school: Arikai (2011) demonstrated that students in rural schools are more likely to form a deeper relationship between mainstream teachers than in urban area, since opportunities for private supplemental tuition is relatively fewer. The author hypothesized that students in urban areas are more likely to rely on private supplemental tuition, so detachment from mainstream class should be weakened. By using census data of Statistics Brual (2015), the researcher created a *city* dummy, whose population is below 100,000 (rural = 0, city = 1).

School rank: Matsuoka (2013) pointed out that students in higher socio-economic schools are more likely to engage in private supplemental tuition. Therefore, the author hypothesized that students in higher-ranked school are less likely to engage in mainstream classes. By following Nishimura (2006), the researcher created Hensachi score which is a continuous variable, exerted from the publication of one famous Japanese website about hensachi score on upper secondary schools in Japan(Sconavi, 2017).

Admissions type for university: The targeted university has several application style. According to websites of targeted university, most common entrance style is *general*

entrance examination, by which applicants took high-stake examination and that test scores directly reflect the admission judgement. This occupies about a little more than half of the entrants in April. One remarkable fact is that this style of entrance examination does not require students' grade in mainstream schools, so the author assumed that students who entered university through general entrance examination is more likely to be detached from mainstream school because it is not necessary for them to mark a good score. On a contrary, *Admission office entrance examination (AO Examination)*, *Christian special recommendation*, *special recommendation*, and *attached high school recommendation* employ the grade of mainstream schooling as requisite for application. The author hypothesized those who took general entrance examination are more likely to be detached from mainstream schooling. The author created general entrance examination dummy (0 = entrance style except general entrance examination, 1 = general entrance examination).

School type, private, public or national, is also an important factor. Bray (2012) showed that students in private school, or national school, are more likely to utilize opportunities for private supplemental tuition. Therefore, it can be inferred that students in private school and national school are more likely to be detached from mainstream school activity. However, since the descriptive data of sample showed students from national

upper secondary school are relatively few, the researcher created only private dummy (0 = public, national upper secondary school, 1 = private upper secondary school).

The researcher also asked (Q1) experience of private supplemental tuition out of school. The answers are 1 = Yes, and 2 = No. If the participants had experience of tuition, the questionnaire further asked (Q2) hours spent on private supplementary tuition per week. The answers are scaled in 1 = less than 3 hours, 2 = between 3 ~ 6 hours, 3 = 7~10 hours, 4 = more than 11 hours. In addition to this, the researcher created four ordinal scales about evaluation of tutors outside-school. In order to observe the tutor effectiveness difference among students with experience of private tuition, and those who do not, the author prepared four ordinal variable to evaluate tutors in private supplementary tuition.

Questions are : (Q3) Is the tutors class inspiring than teachers in mainstream school? (Q4) Is the tutors' class supportive than teachers? (Q5) Is the teacher more knowledgeable than teachers in mainstream class? , and (Q6) Is the teacher more interactive than teachers in mainstream class? Likewise, the author created *average evaluation of tutors* by calculating four variables above. The answers of (Q3)~(Q6) are based on scale of 1 = Strongly disagree, 2 = disagree, 3 = agree, 4 = Strongly agree. The last question (Q6) is calculated

by taking average of ordinal scales of (Q3) ~ (Q6) Questionnaire used in this research is in the appendix sections (see appendix 1).

Chapter 4 Results

4-1 Descriptive Data

Table 1 shows the descriptive data of each questions which are categorical. 63.3% of respondents received tuition, while 37.3% of them do not. Almost two thirds of respondents received tuition. 33.3% of respondents were female, while 66.7% of them were male. As the official data the admission office of the university offers, the male-female rate was relatively similar to the population. 27.3% of respondents were from public upper secondary school, 68.2% from private upper secondary school, and 4.5% from national upper secondary school. 62.5% of respondents entered university through general entrance exam, 15.9% from AO entrance examination, 11.0% from Christian special recommendation, and 4.9% from special recommendation. 10.7% of respondents were from rural upper secondary school where the population was below 100,000, while 89.3% from city upper secondary school where the population was over 100,000 (see table1). According to the census, almost 20% of manipulation population is below 100,000, so the sample data is largely concentrated on city area (see figure1)

Table1 Descriptive statistics of students survey samples

Characteristics		N	%
Received Tuition	YES	168	63.3%
	NO	96	36.7%
Average Time Spent on Tuition	Less than 3 hours	43	25.2%
	3 ~ 6 hours	68	40%
	7~10 hours	28	16.4%
	More than	31	18.2%
Tutors are more Supportive than teachers	Strongly Disagree	14	8.2%
	Disagree	62	36.4%
	Agree	67	39.4%
	Strongly Agree	27	15.8%
Tutors are more inspiring than teachers	Strongly Disagree	5	2.9%
	Disagree	52	30.5%
	Agree	66	38.8%
	Strongly Agree	47	27.6%
Tutors are more knowledgeable than teachers	Strongly Disagree	5	2.9%
	Disagree	59	34.7%
	Agree	62	36.5%
	Strongly Agree	44	25.9%
Tutors are more interactive than teachers	Strongly Disagree	11	6.5%
	Disagree	71	41.8%
	Agree	66	38.8%
	Strongly Agree	22	12.9%
I often talked in the mainstream class	Strongly Disagree	98	37.1%
	Disagree	93	35.2%
	Agree	56	21.2%

Characteristics		N	%
I often slept in the mainstream class	Strongly Agree	17	6.4%
	Strongly Disagree	66	25.0%
	Disagree	71	26.9%
	Agree	76	28.8%
I often did materials the class did not offered.	Strongly Agree	51	19.3%
	Strongly Disagree	43	16.3%
	Disagree	84	31.8%
	Agree	92	34.8%
I was often late in the class	Strongly agree	45	17.0%
	Never	165	62.5%
	Once or twice in a year	42	15.9%
	Once or twice in a month	29	11.0%
	Once or twice in a week	13	4.9%
	More than once or twice in a week	15	5.7%
I was often absent in the class	Never	207	78.4%
	Once or twice in a year	28	10.6%
	Once or twice in a month	11	4.2%
	Once or twice in a week	11	4.2%
	More than Once or twice in a week	7	2.7%
Gender	Male	88	33.3%
	Female	176	66.9%
School Type	Public	72	27.3%
	Private	180	68.2%
	National	12	4.5%
University Admission Style	General Entrance Examination	153	62.5%

Characteristics		N	%
	AO Entrance Examination	32	15.9%
	Christian Special Recommendation	22	11.0%
	Special Recommendation	20	4.9%
	Attached High School Recommendation	37	5.7%
Location of School Located	Rural	28	10.7%
	City	236	89.3%

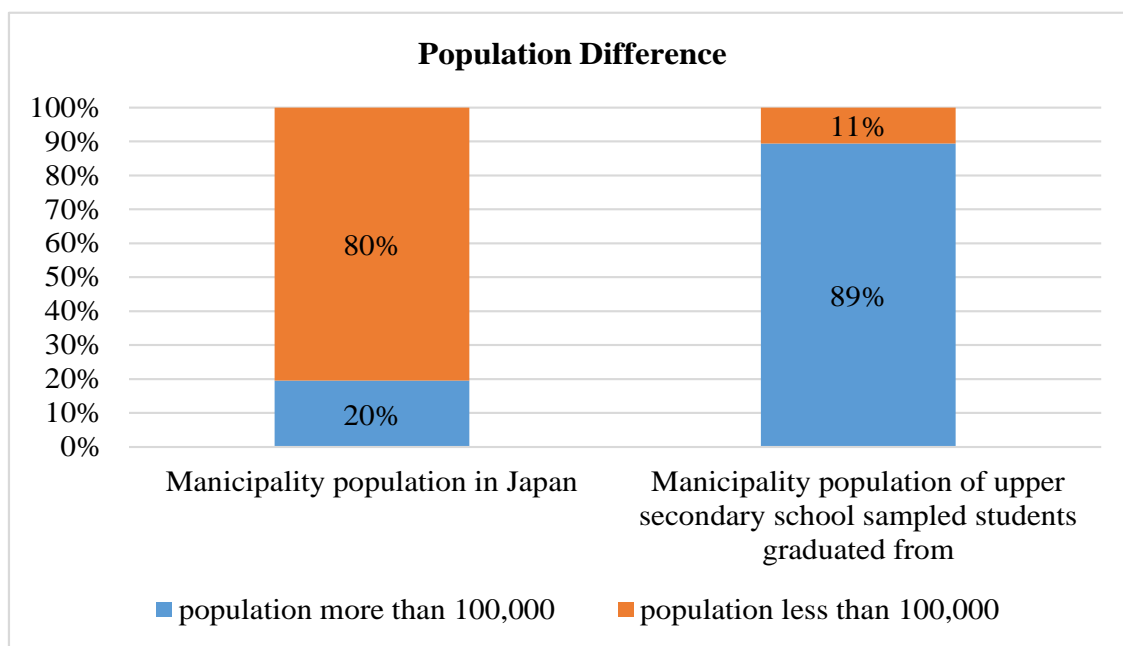


Figure1 Population difference between municipality in Japan and student' school located

Note:Population (Total and Japanese Population), by Age (Five-Year Groups) and Sex,

Percentage by Age, Average Age and Median Age - Japan, All Shi, All Gun, Prefectures,

All Shi of Prefectures, 21 Major Cities, Prefectural Capital Cities, Ku with Population of

500,000 or More and Shi with Population of 200,000 or More), Statistics Bureau. (2015)

Figure 2 shows how students who received private supplemental tuition perceived tutors in comparison with teachers in mainstream school. It is indicated that students are more likely to evaluate tutors in the point that they are more inspiring, and knowledgeable than tutors.

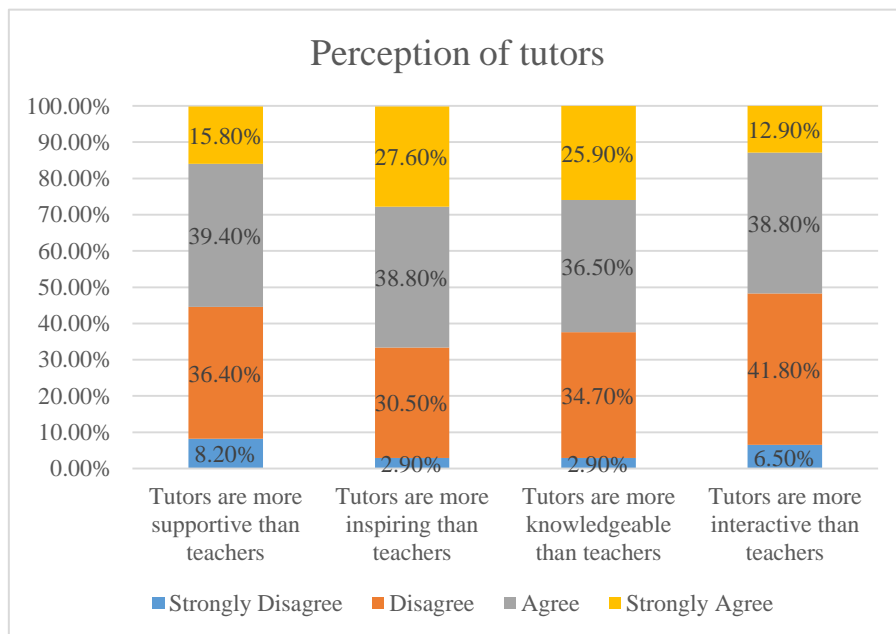


Figure2 how students who received tuition perceive tutors

Figure3 shows the histogram of *hensachi* score. The average score is 65.0, and standard deviation is 7.58. The sampled data shows that the mode is near 70, since *hensachi* score of attached high school is 70 and 5.7% of students entered from that school.

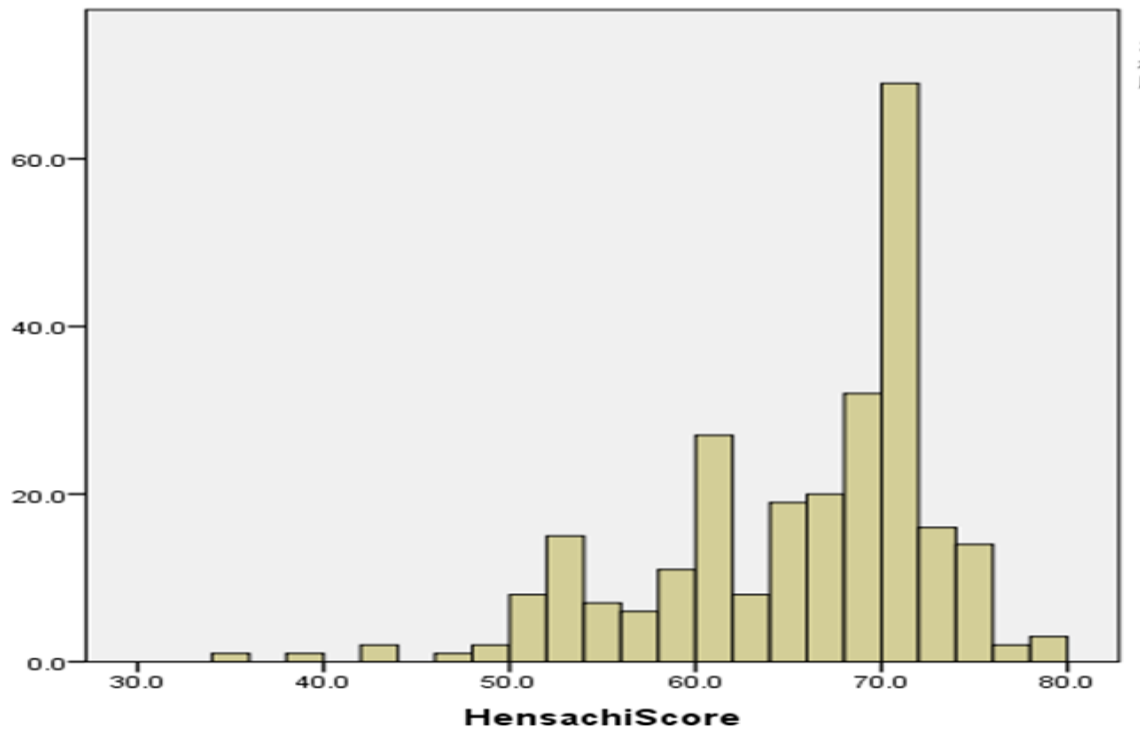


Figure3 Histogram of Hensachi Score of all sampled students (Ave=65.019, SD=7.58, N = 264)

The author created scatter plot for comparing continuous variables *hensachi* score, average tuition perception, and average detachment from mainstream school (see figure

4,figure 5)

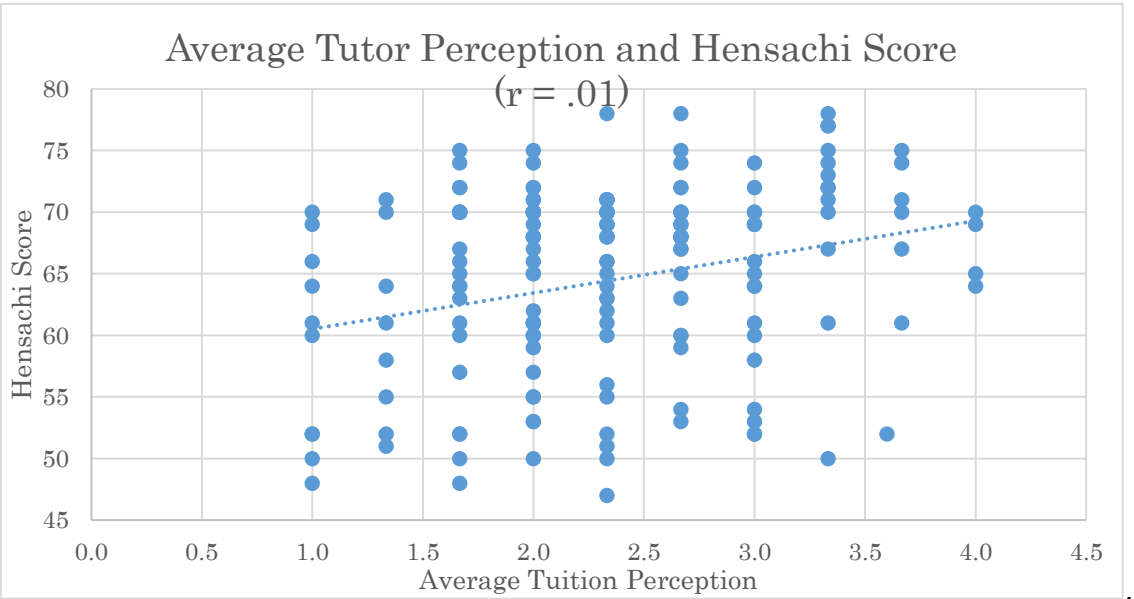


Figure 4 hensachi score and average tuition perception

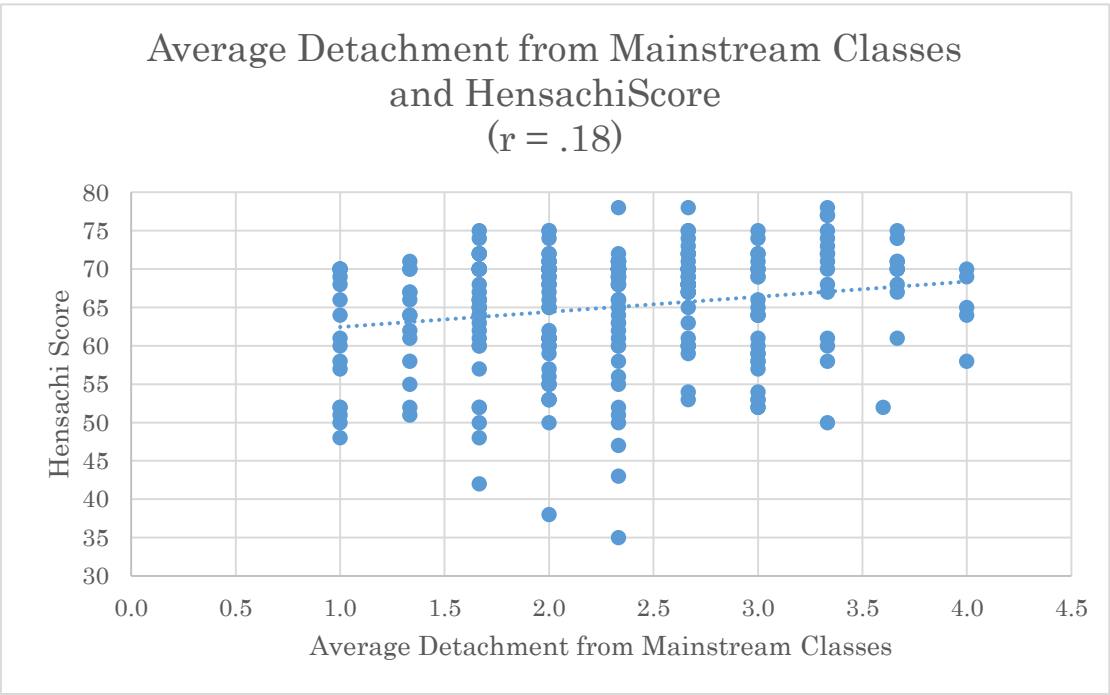


Figure 5 hensachi score and average detachment from mainstream school

In order to see the difference between those who used private supplemental tuition and those who do not, the researcher created cross tabulation table. Table2 shows the comparison between students who received tuition and who did not. Since students who have never received tuition cannot answer the question about evaluation of private supplementary tuition, those questions were excluded. Results showed that 51% of students who received tuition agreed or strongly agreed that they often talked in the class, while 38% of students who did not received tuition did.

Table2 Descriptive statistics comparison between students who received tuition and who did not.

		<i>Received Tuition</i>			
		<i>No</i>		<i>Yes</i>	
		<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>
<i>I often talked in the class</i>	<i>Strongly Disagree</i>	37	39%	61	36%
	<i>Disagree</i>	29	30%	64	38%
	<i>Agree</i>	21	22%	35	21%
	<i>Strongly Agree</i>	9	9%	8	5%
<i>I often slept in the class</i>	<i>Strongly Disagree</i>	31	32%	35	21%
	<i>Disagree</i>	23	24%	48	29%
	<i>Agree</i>	26	27%	50	30%
	<i>Strongly Agree</i>	16	17%	35	21%
<i>I often did materials the class did not offered.</i>	<i>Strongly Disagree</i>	20	21%	23	14%
	<i>Disagree</i>	30	31%	54	32%
	<i>Agree</i>	32	33%	60	36%
	<i>Strongly Agree</i>	14	15%	31	18%
<i>I was often late in the class</i>	<i>Never</i>	62	65%	103	61%
	<i>Once or twice in a year</i>	11	11%	31	18%
	<i>Once or twice in a month</i>	12	13%	17	10%
	<i>Once or twice in a week</i>	4	4%	9	5%
	<i>More than once or twice in a week</i>	7	7%	8	5%

		<i>Received Tuition</i>			
		<i>No</i>		<i>Yes</i>	
I was often absent in the class	Never	72	75%	135	80.4%
	Once or twice in a year	11	11%	17	10.1%
	Once or twice in a month	2	2%	9	5%
	Once or twice in a week	6	6%	5	3%
	More than once or twice in a week	5	5%	2	1%
<i>Gender</i>	<i>Male</i>	37	39%	51	30%
	<i>Female</i>	59	61%	117	70%
<i>School Type</i>	<i>Public</i>	31	32%	41	24%
	<i>Private</i>	64	67%	116	69%
	<i>National</i>	0	0%	10	6%
	<i>Other</i>	1	1%	1	1%
<i>University Admission Style</i>	General Entrance Examination	51	53%	102	61%
	AO Entrance Examination	10	10%	22	13%
	Christian Special Recommendation	10	10%	12	7%
	Special Recommendation	7	7%	13	8%
	Attached High School Recommendation	18	19%	19	11%
<i>Population</i>	Rural	85	89%	151	90%
	City	11	11%	17	10%

In addition, in order to see the relationship between detachment from mainstream school and attributes of individual, the author created contingency table between detachment from mainstream school and attributes of individual. Also, in each variable, Chi-square test of independence was calculated comparing gender, location, examination style, school type and each variables about detachment from mainstream school.

Significant interaction was found between gender and degree of sleeping in mainstream class. ($\chi^2(3) = 17.545, p < .01$), degree of doing other materials in class ($\chi^2(3) = 12.416, p < .01$), degree of being late for school ($\chi^2(4) = 15.834, p < .01$), and degree of being absent from school ($\chi^2(4) = 13.512, p < .01$). The result showed that males are more likely to be detached from mainstream classes. However, no significant interaction was found in school location. Also, a statistically significant relation was observed between entrance examination style and the degree of sleeping in class ($\chi^2(3) = 10.168, p < .05$), the degree of doing other materials in school ($\chi^2(3) = 14.690, p < .01$), the degree of being late for school ($\chi^2(4) = 11.488, p < .05$), and the degree of absence from school ($\chi^2(4) = 13.708, p < .05$). Moreover, statistically significant relation between school type and degree of sleeping in mainstream class. ($\chi^2(3) = 10.951, p < .05$), degree of doing other materials in class ($\chi^2(3) = 9.876, p < .05$), degree of being

late for school ($\chi^2(4) = 7.335, p < .05$), and degree of being absent from school

($\chi^2(4) = 4.123, p < .05$). These results indicates that students from public or national

schools are more likely to be detached from mainstream classes.

Table3 contingency table between detachment from school and gender

		<i>Gender</i>			
		<i>Male</i>		<i>Female</i>	
		<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>
<i>I often talked in the class</i>	<i>Strongly Disagree</i>	25	28.4%	73	41.2%
	<i>Disagree</i>	31	35.2%	62	35.0%
	<i>Agree</i>	23	26.1%	33	18.6%
	<i>Strongly Agree</i>	9	10.2%	9	5.1%
<i>Chi Square</i>	<i>7.149</i>				
<i>I often slept in the class</i>	<i>Strongly Disagree</i>	31	32%	35	21%
	<i>Disagree</i>	23	24%	48	29%
	<i>Agree</i>	26	27%	50	30%
	<i>Strongly Agree</i>	16	17%	35	21%
<i>Chi Square</i>	<i>17.545**</i>				
<i>I often did materials the class did not offered.</i>	<i>Strongly Disagree</i>	14	15.9%	29	16.5%
	<i>Disagree</i>	23	26.1%	61	34.7%
	<i>Agree</i>	26	29.5%	66	37.5%
	<i>Strongly Agree</i>	25	28.4%	20	11.4%
<i>Chi Square</i>	<i>12.416**</i>				
<i>I was often late in the class</i>	<i>Never</i>	46	52.3%	119	67.6%
	<i>Once or twice in a year</i>	13	14.8%	29	16.5%
	<i>Once or twice in a</i>	11	12.5%	18	10.2%

		<i>Gender</i>			
		<i>Male</i>		<i>Female</i>	
		<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>
	month				
	Once or twice in a week	7	8.0%	6	3.4%
	More than once or twice in a week	11	12.5%	4	2.3%
	<i>Chi Square</i>	15.834**			
	Never	59	67.0%	148	84.1%
I was often absent in the class	Once or twice in a year	12	13.6%	16	9.1%
	Once or twice in a month	5	5.7%	6	3.4%
	Once or twice in a week	8	9.1%	3	1.7%
	More than once or twice in a week	4	4.5%	3	1
	<i>Chi Square</i>	13.512**			

Table4 contingency table between detachment from school and location of school

		<i>Location</i>			
		<i>Rural</i>		<i>City</i>	
		<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>
<i>I often talked in the class</i>	<i>Strongly Disagree</i>	16	57.1%	82	34.7%
	<i>Disagree</i>	6	21.4%	87	36.9%
	<i>Agree</i>	3	10.7%	53	22.5%
	<i>Strongly Agree</i>	3	10.7%	14	5.9%
<i>Chi Square</i>	7.592				
<i>I often slept in the</i>	<i>Strongly Disagree</i>	9	32.1%	57	24.2%

		<i>Location</i>			
		<i>Rural</i>		<i>City</i>	
		<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>
<i>class</i>	<i>Disagree</i>	3	10.7%	68	28.8%
	<i>Agree</i>	11	39.3%	65	27.5%
	<i>Strongly Agree</i>	5	17.9%	46	19.5%
<i>Chi Square</i>	4.922				
I often did materials the class did not offered.	<i>Strongly Disagree</i>	7	25.0%	36	15.3%
	<i>Disagree</i>	11	39.3%	73	30.9%
	<i>Agree</i>	5	17.9%	87	36.9%
	<i>Strongly Agree</i>	5	17.9%	40	16.9%
<i>Chi Square</i>	4.616				
I was often late in the class	Never	19	67.9%	156	61.9%
	Once or twice in a year	6	21.4%	36	15.3%
	Once or twice in a month	2	7.1%	27	11.4%
	Once or twice in a week	0	0%	13	5.5%
	More than once or twice in a week	1	3.6%	14	5.9%
<i>Chi Square</i>	2.952				
I was often absent in the class	Never	23	82.1%	184	78.0%
	Once or twice in a year	4	14.3%	24	10.2%
	Once or twice in a month	1	3.6%	10	4.2%
	Once or twice in a week	0	0%	11	4.7%
	More than once or twice in a week	0	0%	7	3.0%
<i>Chi Square</i>	2.618				

Table5 contingency table between detachment from school and examination style

		Examination Style			
		AO or Recommendation		General Entrance Exam	
		N	%	N	%
<i>I often talked in the class</i>	<i>Strongly Disagree</i>	34	30.6%	64	41.8%
	<i>Disagree</i>	46	41.4%	47	30.7%
	<i>Agree</i>	25	22.5%	31	20.3%
	<i>Strongly Agree</i>	6	5.4%	11	7.2%
<i>Chi Square</i>	4.736				
<i>I often slept in the class</i>	<i>Strongly Disagree</i>	34	30.6%	32	20.9%
	<i>Disagree</i>	35	31.5%	36	23.5%
	<i>Agree</i>	29	26.1%	47	30.7%
	<i>Strongly Agree</i>	13	11.7%	38	24.8%
<i>Chi Square</i>	10.168*				
<i>I often did materials the class did not offered.</i>	<i>Strongly Disagree</i>	21	18.9%	22	14.4%
	<i>Disagree</i>	45	40.5%	39	25.5%
	<i>Agree</i>	36	32.4%	56	36.6%
	<i>Strongly Agree</i>	9	8.1%	36	23.5%
<i>Chi Square</i>	14.690**				
<i>I was often late in the class</i>	<i>Never</i>	77	69.4%	88	57.5%
	<i>Once or twice in a year</i>	19	17.1%	23	15.0%
	<i>Once or twice in a month</i>	11	9.9%	18	11.8%
	<i>Once or twice in a week</i>	3	2.7%	10	6.5%
	<i>More than once or twice in a week</i>	1	0.9%	14	9.2%
<i>Chi Square</i>	11.488*				

		<i>Examination Style</i>			
		<i>AO or Recommendation</i>		<i>General Entrance Exam</i>	
		<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>
I was often absent in the class	Never	94	84.7%	113	73.9%
	Once or twice in a year	14	12.6%	14	9.2%
	Once or twice in a month	1	0.9%	10	6.5%
	Once or twice in a week	1	0.9%	10	6.5%
	More than once or twice in a week	1	0.9%	6	3.9%
<i>Chi Square</i>	13.708**				

Table6 contingency table between detachment from school and school type

		School Type			
		Public or National		Private	
		N	%	N	%
I often talked in the class	Strongly Disagree	43	51.2	55	30.6
	Disagree	24	28.6%	69	38.3%
	Agree	12	14.3%	44	24.4%
	Strongly Agree	5	6.0%	12	6.7%
Chi Square	10.951*				
I often slept in the class	Strongly Disagree	14	16.7%	52	28.9%
	Disagree	19	22.6%	52	28.9%
	Agree	28	33.3%	48	26.7%
	Strongly Agree	23	27.4%	28	15.6%
Chi Square	9.289*				
I often did materials the class did not offer	Strongly Disagree	12	14.3%	31	17.2%
	Disagree	17	20.2%	67	37.2%
	Agree	37	44.0%	55	30.6%
	Strongly Agree	18	21.4%	27	15.0%
Chi Square	9.876*				
I was often late in the class	Never	43	51.2%	122	67.8%
	Once or twice in a year	16	19.0%	26	14.4%
	Once or twice in a month	13	15.5%	16	8.9%
	Once or twice in a week	5	6.0%	8	4.4%
	More than once or twice in a week	7	8.3%	8	4.4%
Chi Square	7.335*				
I was often absent	Never	60	71.4%	147	81.7%

		<i>School Type</i>			
		<i>Public or National</i>		<i>Private</i>	
		<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>
in the class	Once or twice in a year	13	15.5%	16	8.9%
	Once or twice in a month	4	4.8%	7	3.9%
	Once or twice in a week	4	4.8%	7	3.9%
	More than once or twice in a week	3	3.6%	4	2.2%
<i>Chi Square</i>	4.123				
** $p < .01$, * $p < .05$					

4-2 Correlation Matrix

The researcher conducted Person's correlation coefficient analysis on commitment to mainstream class, evaluation of shadow education, and attribute of respondents. Table 4 shows Pearson's the result of correlation coefficient between detachment from mainstream classes. Based on the results of the study, *talk in class* variable are weakly yet positively related to sleep in class variable ($r = .176$, $p < .01$) and other material in class variable ($r = .238$, $p < .01$). Sleep in class variable is moderately positively related to other materials in class variable, ($r = .417$, $p < .01$), talk in class ($r = .176$, $p < .05$), other materials in class ($r = .239$, $p < .05$), late in class ($r = .344$, $p < .05$), absent in class ($r = .299$, $p < .05$). Among all,

moderate positive correlation were observed between sleep in class and other materials in class ($r = .417, p < .01$), late in class and sleep in class ($r = .344, p < .01$).

Table 7 Pearson's correlation coefficient between detachment from mainstream classes.

	Average detachment from mainstream class	Talk in Class	Sleep in Class	Other Material in Class	Late in Class	Absent in Class
Average detachment from mainstream class	1	<u>.626**</u>	.766*	<u>.764*</u>	.405*	.321**
Talk in Class	.626**	1	.176**	.238**	.239*	.168**
Sleep in Class	.766*	.176*	1	.417**	.344**	.297**
Other Materials in Class	<u>.764*</u>	.238**	.417**	1	.290**	.220**
Late in Class	.405**	.239*	.344**	.290**	1	.760**
Absent in Class	.321**	.168**	.297**	<u>.220**</u>	<u>.760*</u>	<u>1</u>
** $p < 0.01$, * $p < 0.05$						

Researcher also conducted the Person's correlation analysis on tutor perception.

The result showed in table 8. Remarkable results shows that hours per week variables are very weakly and positively correlated with tutors supportive ($r = .198, p < .01$), tutors inspiring ($r = .206, p < .01$), tutors knowledgeable ($r = .230, p < .01$), and tutors interactive ($r = .191, p < .05$).

Table 8 Correlation among tutor perception

	Average Tutor Perception	Hours Per Week	Tutors Supportive	Tutors Inspiring	Tutors Knowledgeable	Tutors Interactive
Average Tutor Perception	1	<u>.523**</u>	.776**	.777**	.742**	.783**
Hours Per Week	.523**	1	.198**	.206**	.230**	.191*
Tutors Supportive	.776**	.198**	1	.522**	.438**	.724**
Tutors Inspiring	<u>.777**</u>	.206**	.522**	1	.597**	.514**
Tutors Knowledgeable	.742**	.230**	.438**	.597**	1	.447**
Tutors interactive	.783**	.191**	.724**	<u>.514**</u>	<u>.447**</u>	<u>1</u>
**p < 0.01, *p < 0.05						

To see the relationship between detachment from mainstream classes and tutor perception, the author conducted Pearson's correlation analysis (see Table 8). Average detachment from mainstream class variable is very weakly and positively correlated with hours spent on tuition per week ($r = .158$, $p < .01$). Other materials in class variables is moderately correlated to average tutor perception ($r = .204$, $p < .01$), and tutors interactive ($r = .206$, $p < .01$). Absent in class is very weakly correlated to tutors inspiring ($r = .151$, $p < .05$).

In addition, to see the relationship between the average detachment from mainstream class and attribute of respondents, the author conducted the correlation analysis. Female dummy is negatively correlated with average detachment from mainstream class ($r = -.207$, $p < .01$), talk in class ($r = -.164$, $p < .01$), sleep in class ($r = -.149$, $p < .01$), other material in class ($r = -.132$, $p < .05$), late in class ($r = -.230$, $p < .01$), and absent in class ($r = -.212$, $p < .01$). Also, public dummy is negatively correlated to talk in class ($r = -.230$, $p < .01$), sleep in class ($r = -.172$, $p < .05$), other materials in class ($r = -.125$, $p < .05$). Private dummy is correlated with talk in class ($r = -.164$, $p < .01$), sleep in class ($r = -.186$, $p < .01$), other materials in class ($r = -.143$, $p < .01$), late in class ($r = -.150$, $p < .05$). National dummy is positively correlated with late in class ($r = .126$, $p < .01$). General entrance examination is positively correlated with average detachment from mainstream class ($r = .167$, $p < .01$), sleep in class ($r = .188$, $p < .01$), other material in class ($r = .204$, $p < .05$), late in class ($r = .194$, $p < .01$), and absent in class ($r = .192$, $p < .01$), while such correlation was not observable in other entrance examination type. No significant difference was found among variables such as rural and city dummy. However, *hensachi* score is positively correlated with average detachment from mainstream class ($r = .184$, $p < .01$), sleep in class ($r = .156$, $p < .01$), and other materials in class ($r = .133$, $p < .05$).

Table9 Correlation between detachment from mainstream classes and tutor perception

	Average Tutor Perception	Hours Per Week	Tutors Supportive	Tutors Inspiring	Tutors Interactive	Female	Public	Private	National	General Exam
Average Detachment from Mainstream Class	.147	<u>.158*</u>	.084	.102	.097	<u>-.207**</u>	.045	-.089	-.092	<u>.167**</u>
Talk in Class	.004	.140	.013	-.039	-.006	<u>-.164*</u>	<u>-.230**</u>	<u>.164**</u>	.093	-.053
Sleep in Class	.093	.125	.015	.093	.009	<u>-.149*</u>	<u>.172*</u>	<u>-.186*</u>	.051	<u>.188*</u>
Other Materials in Class	<u>.204**</u>	.073	.143	.142	<u>.206**</u>	<u>-.132*</u>	<u>.125*</u>	<u>-.143*</u>	0.57	<u>.204*</u>
Late in Class	-.018	.143	-.013	.114	.109	<u>-.230**</u>	.085	<u>-.150*</u>	.126*	<u>.194*</u>
Absent in Class	.148	-.030	.145	<u>.151*</u>	.125	<u>-.212**</u>	.069	-.083	-.004	<u>.192**</u>
**p < .01, *p < .05										

Table10 Correlation between detachment from mainstream classes and gender, school

type

	Female	Public	Private	National
Average Detachment from Mainstream Class	<u>-.207**</u>	.045	-.089	-.092
Talk in Class	<u>-.164*</u>	<u>-.230**</u>	<u>.164**</u>	.093
Sleep in Class	<u>-.149*</u>	<u>.172*</u>	<u>-.186*</u>	.051
Other Materials in Class	<u>-.132*</u>	<u>.125*</u>	<u>-.143*</u>	0.57
Late in Class	<u>-.230**</u>	.085	<u>-.150*</u>	.126*
Absent in Class	<u>-.212**</u>	.069	-.083	-.004
**p < 0.01, *p < 0.05				

Table11 Correlation between detachment from mainstream classes and gender, entrance

type

	General Exam	AO Exam	Christian Special Recommendation	Special Recommendation	High School Recommendation
Average Detachment from Mainstream Class	<u>167**</u>	-.091	-.053	-.032	-.092
Talk in Class	-.053	.025	-.050	-.084	.156*
Sleep in Class	<u>188*</u>	<u>-148*</u>	-.017	.061	-.161*
Other Materials in Class	<u>.204*</u>	.047	-.051	-.038	-.177
Late in Class	<u>194*</u>	-.070	-.88	<u>-135*</u>	-.036
Absent in Class	<u>192**</u>	-.079	-.062	-.112	-.064
**p < 0.01, *p < 0.05					

Table12 Correlation between detachment from mainstream classes and gender, entrance

type

	Rural	City	Hensachi Score
Average Detachment from Mainstream Class	-.074	.074	.184**
Talk in Class	-.083	.083	.094
Sleep in Class	.001	-.001	.156**
Other Materials in Class	-.087	.087	.133*
Late in Class	-.074	.074	.083
Absent in Class	-.075	.075	.062
**p < 0.01, *p < 0.05			

The researcher also went on to see the relationship between tutor perception and attributes of respondents (see table6). Female dummy is negatively correlated with average tuition perception ($r = .151$, $p < .05$), tutors supportive ($r = -.193$, $p < .05$), tutors inspiring ($r = -.193$, $p < .01$), and tutors knowledgeable ($r = .161$, $p < .05$). No correlation was observed between tuition perception and school type such as public, private, and national. However, general entrance examination dummy is positively correlated with average tuition perception ($r = .232$, $p < .01$), hours spent on tuition ($r = .216$, $p < .01$), tutors supportive ($r = .187$, $p < .01$), tutors inspiring ($r = .175$, $p < .01$). AO examination dummy is negatively correlated with only hours spent on tuition ($r = -.188$, $p < .01$). Christian recommendation is negatively correlated with only tutors inspiring ($r = -.262$, $p < .01$). No correlation was observed between special recommendation and commitment to tuition.

Table13 correlation between perception to shadow education and gender, school type

	Female	Public	Private	National
Average Tuition Perception	-151*	039	-086	067
Hours Spent on Tuition	-073	009	-020	054
Tutors Supportive	-193*	027	-086	087
Tutors Inspiring	-193*	027	-086	087
Tutors Knowledgeable	-161*	017	-056	044
Tutors Interactive	-005	019	-044	006
**p < 0.01, *p < 0.05				

Table14 correlation between perception to shadow education and gender, school type

	General Exam	AO Exam	Christian Recommendation	Special Recommendation	Attached High School Recommendation
Average Tuition Perception	232**	036	-132	-005	-282**
Hours Spent on Tuition	216**	-188**	-034	051	-149
Tutors Supportive	187**	-003	-005	-083	-220**
Tutors Inspiring	175**	146	-262**	057	-254**
Tutors Knowledgeable	117	130	-1.34	-002	-205**
Tutors interactive	121	070	-044	-044	-189**
**p < 0.01, *p < 0.05					

Table15 correlation between perception to shadow education and location, and hensachi score

	Rural	City	Hensachi Score
Average Tuition Perception	001	-001	013
Hours Spent on Tuition	-013	013	-036
Tutors Supportive	-039	039	022
Tutors Inspiring	106	-106	037
Tutors Knowledgeable	035	-035	-002
Tutors interactive	-072	072	018
**p < 0.01, *p < 0.05			

4-3 Multiple linear regression analysis

A multiple linear regression was conducted to predict *average detachment from mainstream school* based on following 6 variables: *female dummy*, *city dummy*, *general entrance examination dummy*, *private school dummy*, *average shadow perception*, *hensachi score*. A significant regression equation was found ($F(6,163) = 2.954, p < .009$), with an R^2 of 0.098. Contrary to our expectation, *average shadow perception*, *general entrance dummy*, *city dummy* were not significantly related to *average detachment from mainstream school*, while only *hensachi score* is significantly related. The result revealed that students from higher *hensachi* high school are more likely to detach from mainstream

classes.

Table15 Summary of multiple-regression analysis between average detachment from mainstream school

Variable	B	SE B	B	Sig
Constant	.749	.617		.227
Female	-0.67	.124	-0.44	.588
City	.095	.177	.041	.595
General Entrance	.133	.118	.093	.262
Private	-.122	.118	-.080	.306
Average Tuition	.121	.085	.109	.160
Perception				
Hensachi Score	.019	.008	.187*	.020
R^2	.313			
Adjusted R^2	.098			
**p < 0.01, *p < 0.05				

A multiple linear regression was calculated to predict *sleep in class* based on same variables above. However, no significant regression equation was found ($F(6,163) = 1.055$, $p < .392$), with an R^2 of 0.37.

Table 16 Summary of multiple-regression analysis among talk in class

Variable	B	SE B	B	Sig
Constant	.933	.795		.243
Female	-.118	.159	-0.62	-.062
City	.325	.229	.112	.157
General Entrance Exam	-.012	.152	-.007	.936
Private	.194	.152	.103	.204
Average Shadow Perception	.006	.110	.004	.959
Hensachi Score	.010	.010	.080	.333
R^2	.193			
Adjusted R^2	.067			
**p < 0.01, *p < 0.05				

A multiple linear regression was conducted to predict *other materials in class* based on same variables above. A significant regression equation was found ($F(6,163) = 2.954$, $p < .009$), with an R^2 of 0.98. Only *hensachi score* is significantly related to *sleep in class*.

Table 17 Summary of multiple-regression analysis sleep in class

Variable	B	SE B	β	Sig
Constant	.446	.921		.629
Female	-.110	.185	-.049	.551
City	-.037	.265	-.011	.888
General Entrance Exam	.161	.176	.076	.361
Private	-2.88	.176	-.127	.105
Average Shadow Perception	.091	.127	.055	.477
Hensachi Score	.031	.012	.204*	.011
R^2	.317			
Adjusted R^2	.100			
**p < 0.01, *p < 0.05				

A multiple linear regression was also calculated to predict *other materials in class* based on same variables above. A significant regression equation was found ($F(6,163) = 2.954, p < .009$), with an R^2 of 0.098. Contrary to our expectation, *general entrance dummy*, *city dummy* were not significantly related, while only *average tutor perception* is significantly related. The result revealed that students with higher expectation to shadow education are more likely to do materials not assigned in the mainstream class.

Table 18 Summary of multiple-regression analysis other materials in class

Variable	B	SE B	B	Sig
Constant	1.06	.834		.206
Female	.022	.167	.011	.895
City	.011	.240	.004	.962
General Entrance Exam	.243	.160	.126	.130
Private	-2.70	.160	-.132	.094
Average Shadow Perception	.246	.115	.164*	.035
Hensachi Score	.014	.011	.099	.213
R^2	.314			
Adjusted R^2	.098			
**p < 0.01, *p < 0.05				

A multiple linear regression was conducted to predict *late in class* based on same variables above. The model was statistically significant with ($F(6,163) = 2.954, p < .009$), with an R^2 of 0.091. The result shows that only *female dummy* is negatively related with statistical significance. The result demonstrates that male students are more likely to be late for the class.

Table 19 Summary of multiple-regression analysis late in class

Variable	B	SE B	B	Sig
Constant	1.209	1.018		.237
Female	-4.21	.204	-1.68*	.041
City	.197	.293	.052	.501
General Entrance Exam	.271	.195	-0.72	.359
Private	-1.79	.195	-0.72	.275
Average Shadow Perception	.154	.141	.085	.275
Hensachi Score	.003	.013	.020	.803
R^2	.302			
Adjusted R^2	.091			
**p < 0.01, *p < 0.05				

A multiple linear regression was carried out to predict *absent in class* based on same variables above. A significant regression equation was found ($F(6,163) = 2.954$, $p < .009$), with an R^2 of 0.069. The result shows that only *female dummy* is, significantly negatively related. The result demonstrates that male students are more likely to be absent in the class than females.

Table 20 Summary of multiple-regression analysis absent in class

Variable	B	SE B	B	Sig
Constant	.811	.725		.265
Female	-2.87	.145	-1.63*	.04
City	.106	.208	.039	.612
General Entrance Exam	.166	.139	.101	.232
Private	.060	.139	.034	.668
Average Shadow Perception	.132	.100	.102	.191
Hensachi Score	.002	.009	.019	.810
R^2	.263			
Adjusted R^2	.069			
**p < 0.01, *p < 0.05				

Chapter 5 Discussion

First research question was partly consistent with past literature. Pearson's correlational analysis revealed that hours spent on tuition per week is positively related to average detachment from mainstream class. Also, average tuition perception is positively related to doing other materials in mainstream class. Furthermore, the result of multiple-linear regression analysis showed doing other materials in school was significantly predicted by average tutor perception. This result is consistent with past literature that students who go to cram school rely on tuition center, perceive them as more relevant, and neglect their classroom activity (Kim, 2007). Although Kim showed that students in Korea sleep, talk, other materials in need for passing entrance examination of the university, the result of this study is only identical to doing other materials in class. Since the sample size was limited and targeted only to one of the top universities students' academic achievement (*hensachi* score) is biased as shown in *hensachi* histogram. Therefore, the result is only applicable to the population in which students' academic achievement is relatively higher. To generalize larger variety of stratification, further research should be examined to larger sample size, and different *hensachi* stratification.

In terms of the second research question that who is more likely to be detached from mainstream class, some findings were not consistent with past literature. Contrary to our hypothesis, no relationship between geographical difference and detachment from mainstream school was observed. As opposed to Arikai's study (2013) which revealed students from rural area are more likely to form rigid relationship among teachers due to lack of tuition supply, no such result was observed. It is assumed that since this study employed the sampled data which was largely concentrated to city areas (90%), the sample could not reflect the population. Therefore, further research should be examined.

However, this research has brought new insights that (1) males are more likely to be late or absent from school and that (2) students from higher-ranked school are more likely to sleep during class. As Matsuoka (2012) revealed that students from higher socio-economic school are more likely to seek shadow education, it may be inferred that students from higher-ranked school are more likely to rely on themselves, or tuition, not lessons from mainstream teachers. Another finding from correlation analysis shows that (4) students who entered from general entrance examination are more likely to detach from mainstream classes, for example, sleeping, doing other materials in class, being late in class, and being absent from class, while students who entered through AO entrance

examination are less likely to sleep in class, and students who entered from special recommendation are less likely to be late from school. It is strongly notable that depending on what style students enter the university, degree of involvement in mainstream classes differs. It is inferred that high-stake examination can detach students from mainstream classes' activity, especially in high-ranked upper secondary school. However, no significant difference was observed when multiple regression analysis was carried out.

In theory, educational institution has played a significant role in legitimating function of education. It has been commonly accepted that through students' efforts and achievement within school, their status gap are legitimated, and schools legitimate the achievement gap. However, this study illustrated that students who prefer private supplemental tuition to mainstream classes, and students from higher-ranked school are more likely to detach from activity in mainstream classes. It is strongly assumed that school's legitimate function of education has been weakened in general due to the existence of *juku* and in high-ranked schools in particular. Students with high achievement do not rely on schools, and sleep, do materials irrelevant to class.

This research is limited in that since the questionnaire utilized did not ask what kind of materials students used during class, it cannot generalize that materials are from

private supplemental tuition. The number of sample was not enough to see more detailed characteristics. Therefore, more random sampling and larger sample size from different ranked university in both city and rural area should have been expected.

Chapter 6 Conclusion

6-1 Summary

This study's main purpose is to see whether shadow education undermines the legitimate function of education, and investigated (1) the relationship between tuition perception and detachment of mainstream school, and (2) who is more likely to be detached from classes in mainstream class. The author conducted a case study of one of the top private university in Japan and asked students to reflect back their experience of private supplementary tuition and detachment from mainstream classes at the 3rd grade in upper secondary school by filling in both paper and web questionnaire. 264 valid responses were collected, 169 valid responses from paper questionnaire, and 95 valid responses from web questionnaire. Findings showed that in the relationship between tuition perception and detachment of mainstream school, students who preferred tuition to mainstream teachers are more likely to do materials irrelevant to mainstream classes. Also, students from higher-ranked school are more likely to be detached from mainstream activity, especially sleep during classes. In both cases, it should be strongly noted that legitimate function of education has been weakened due to students' prioritization of *juku*. Students with higher satisfaction in tuition are not dependent on mainstream classes, and students with higher

academic achievement sleep during class. Theoretically, effort and ability of students are evaluated through schooling, and based on their educational attainment within schooling, and schools perform as a institute that legitimate achievement gap. However, this study indicates that students who received tuition, students from higher achievement school less commit to mainstream school and entered one of the top private universities in Japan. The author warns that now that the demand and supply of shadow education are widened, legitimate function of education has been hidden by shadow education, and school itself.

6-2 Contribution of the study

Past literature has discussed how shadow education is related to mainstream class in qualitative analysis (Kim, 2007). This study empirically showed the evidence that students with higher expectation to tutors in private supplementary tuition neglect mainstream classes. Also, this study revealed attributes of students who are likely to be detached from mainstream school activity. As Matsuoka (2013) pointed out that students with higher-ranked school are more likely to seek shadow education, this study revealed that they are more likely to be detached from mainstream classes. Also, past literature has not yet discussed on gender difference and detachment from mainstream activity, so this

study brought gender difference into discussion. This study revealed that males are more likely to be late or absent from mainstream school.

6-3 Limitation and Future Research

Since this research has been conducted by convenient sampling, the sample was largely biased. For example, the histogram of *hensachi* score shows that students whose *hensachi* ranges from 65~75 are concentrated, and almost 90% of students are from city area. Therefore, further research should be examined. Also, this study conducted liner multiple-regression analysis though more than half of dependent variables are ordinal scales. Therefore, further research should be carried out with more adaptable methodology. In addition, since this study is not a longitudinal analysis, the causal relationship between tuition perception and detachment from mainstream school is obscure. It should be examined that whether detachment from mainstream school influence higher evaluation of tuition or vice versa. In order to see the causal relationship, further longitudinal research should be conducted.

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抄訳 Abstract

影の教育は、年々世界中での需要が高まってきている。影の教育(shadow education)とは、私的補填的教育 (private supplementary tuition) と呼ばれ、一般的な学校教育(mainstream schooling)とは異なる。影の教育は、学校外教育の一部であり、将来的な学歴獲得のために、金銭のやり取りによって、学校の教師や、学校外の教師から教育を受けることである。日本をはじめとする、韓国、台湾などの東アジアの国々では、塾(cram school)などが影の教育としては特徴的であり、中央アジア、東南アジア等学校の先生が賄賂などを通して行われる。影の教育はそれぞれの国の文化、経済政策に根付いたものであり、独自の変化を遂げている。

また、影の教育は大きな社会的影響力があることが、世界中で示唆されてきている。大きな潮流として、1. 影の教育は学業業績を上げるのか、2. 影の教育は教育格差を助長するのか、3. 影の教育は学校教育にも関係があるのかという議論がある。影の教育は学業業績を上げるのかという議論に対しては、賛否両論どちらの根拠も世界中からあげられてきていて、また通塾による効果を測定することが難しいという議論もある。影の教育は教育格差を助長するのかという議論に関しては、海外、日本問わず、家庭の経済文化資本が教育費として影の教育に投資され、非通塾群と通塾軍の間に、学力の格差があるということが、定量的、定性的

に研究されてきた。影の教育と学校教育に関する研究は、例えば Kim (2007)は通塾している生徒ほど学校での授業では私語、睡眠、内職等を行い、授業に対するコミットメントが減っていることを指摘している。また、Mclean(2009)の研究によると、大学生に中学校時代の塾での授業に対する経験を振り返ってもらった結果、60%の学生が、学校の数学の授業よりも塾の数学の授業のほうがおもしろいと回答した。また、有海（2013）の定量的な研究によると、通塾の機会が少ない地方出身者は都心部出身者と比べて、受験勉強にほかに依存する機関が比較的少ないため、学校の先生との信頼関係が築きやすいと述べた。

このように、影の教育が学校教育と比較され、学校教育がないがしろにされている場合、教育の正当化機能がむしろまれていることが示唆される。つまり、教育機関を通して、個々人の努力と能力が正当に評価され、社会的地位配分が行われることで、結果の格差が正当化されてきているが、影の教育が間接的に学校教育の機能を代替している可能性があるのである。

一方で、塾に対する印象と、学校での行動に対する直接的な関係を定量的に実証した研究は少ない。そこで本研究は、影の教育が学校の正当化機能を弱体化しているのかを調査した。主要な本研究は、問 1. 塾に対する認知が、学校の授業での行動にどのような関係を持っているのか、そして問 2. 学校での授業に積極的に

取り組まなくなる個々人の属性的要因は何かをリサーチクエスションとして設定した。

調査は、東京都内の難関私立大学に在学中、卒業後の学生、社会人に調査用紙と Web 調査用紙を配布し行った。時間的、技術的制限から、簡易抽出法を利用し、264 票の有効回答票を得た。

重回帰分析の結果、問 1 に関しては、学校よりも塾の先生のほうがよいと認識している生徒ほど、学校の授業中に授業とは関係のない勉強をし、内職していることが分かった。問 2 に関しては、生徒の出身校の偏差値が高ければ高いほど、学校での授業に対する取り組みが弱まり、特に授業中に居眠りしてしまうことが斑目した。また、男性のほうが女性よりも、授業に遅刻、欠席する傾向があうことが示唆された。一方で、首都圏出身か、地方出身化による有意差は観察されなかったため、先行研究とは異なる結果が読み取れる。

調査の結果、教育の正当化機能が影の教育（塾）によって、非間接的に弱体化されている可能性があることが示唆された。また、教育の正当化機能として、より高い偏差値の学校にいる生徒は、学校教育によって社会的地位の高い大学に入学しているのではなく、学校教育以外の第 3 の要因によって学力を向上していることも示唆された。

本研究は、塾に対する認知が、学校の授業での行動にどのような関係を持っているのかを定量的に分析した。一方で、サンプルが首都圏出身者、偏差値の高い人に偏っていたため、日本全国のすべての大学生を母集団としたサンプルとしては不適切であった。よりランダムにサンプリングされた大規模調査を今後期待したい。また、技術的な制約から、重回帰分析の際に、従属変数が順序尺度の変数に、線形モデルを利用しているため、よりふさわしい調査手法を利用した研究が必要である。

Chapter 9 Appendix

9-1 Questionnaire (in Japanese)

学校外教育と高等学校の授業に関する調査

国際基督教大学 4 年生、教育学西村幹子ゼミに所属しています河合大と申します。今回は調査にご協力いただき、誠にありがとうございます。この調査は、高校 3 年生時点での学校外教育と、高等学校での授業について伺います。調査の対象者は、高校三年生時点で、日本の学校(インターナショナルスクールを含む)で教育を受けた人となります。高校三年生時点で、日本以外での教育を受けた方は、無記入のまま、回答用紙をご返却してください。

質問は全部で 15 問あります。回答は全て調査者の厳重な管理のもとで、直ちに記号化され、コンピュータにより統計的に分析されます。

無記入の項目がある場合、統計処理ができなくなってしまうます。それぞれの質問をよく読み、全ての質問についてお答えください。回答に困ったら、調査者にご質問お願いします。ご協力よろしくお願いいたします。

国際基督教大学教養学部 4 年 河合大

教育学西村ゼミ所属

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【あなたの高校三年生の時点での学校外教育での学習について質問します。】

ここで定義する学校外教育とは、通っていた高等学校以外で、先生（講師等）がいる教育（塾、衛星予備校、家庭教師、個別指導等）となります。（参考書等のみであれば、学校外教育には含みません。）

1 あなたは学校外教育を受けていましたか。

1. はい	2. いいえ
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2 【1 ではいと答えた方に質問します。いいえと答えた方は、質問 7 に進んでください。以下のステートメントに最も当てはまる番号一つ選び○をつけてください。】

あなたは学期中、週に平均何時間程度、学校外教育を利用していましたか。

1. 3 時間未満	2. 3～6 時間	3. 7～10 時間	4. 11 時間以上
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3 【以下のステートメントに最も当てはまる番号一つに○をつけてください。】

「学校外教育の先生は、学校の先生と比べて、協力的であった」

1.まったく当てはまらない	2. あまり当てはまらない	3. やや当てはまる	4. 非常にあてはまる
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4 【以下のステートメントに最も当てはまる番号一つに○をつけてください。】

「学校外教育の先生は、学校の先生と比べて、授業が面白かった。」

1.まったく当てはまらない	2. あまり当てはまらない	3. やや当てはまる	4. 非常にあてはまる
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5. 【以下のステートメントに最も当てはまる番号一つに○をつけてください。】

「学校外教育の先生は、学校の先生と比べて、知識があった。」

1.まったく 当てはまらない	2. あまり 当てはまらない	3. やや当てはまる	4. 非常に あてはまる
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6. 【以下のステートメントに最も当てはまる番号一つに○をつけてください。】

「学校外教育の先生は、学校の先生と比べて、より対応してくれた」

1.まったく 当てはまらない	2. あまり当てはまらない	3. やや当てはまる	4. 非常に あてはまる
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7 【高校 3 年生時の、高等学校での授業の取り組みについて質問します。

以下のステートメントに最も当てはまる番号一つに○をつけてください。】

「授業中、私はよく私語をしていた。」

1.まったく 当てはまらない	2. あまり当てはまらない	3. やや当てはまる	4. 非常に あてはまる
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8 【以下のステートメントに最も当てはまる番号一つに○をつけてください。】

「授業中、よく寝ていることがあった。」

1.まったく 当てはまらない	2. あまり当てはまらない	3. やや当てはまる	4. 非常に あてはまる
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9【以下のステートメントに最も当てはまる番号一つに○をつけてください。】

「授業中に、よく授業とは関係ない内容を勉強していることがあった。」

1.まったく 当てはまらない	2. あまり当てはまらない	3. やや当てはまる	4. 非常に あてはまる
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10【以下のステートメントに最も当てはまる番号一つに○をつけてください。】

「授業に遅刻することがあった。」

1.まったく 当てはまらない	2. 年に 1~2 回程 度	3. 月に 1~2 回程 度	4. 週に 1~2 回程 度	5. 週に 1~2 回以 上
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11【以下のステートメントに最も当てはまる番号一つに○をつけてください。】

「授業に無断で欠席することがあった。」

1.まったく 当てはまらない	2. 年に 1~2 回程 度	3. 月に 1~2 回程 度	4. 週に 1~2 回程 度	5. 週に 1~2 回以 上
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12【以下の選択肢で最も当てはまる番号一つに○をつけてください。】

あなたの性別を教えてください。

1. 男性	2. 女性	3. その他
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13【以下の選択肢で最も当てはまる番号一つに○をつけてください。】

あなたの卒業した高等学校の形態は、以下のどれが当てはまりますか。当てはまるものがない場合、その他に記入してください。

1. 公立	2. 私立	3. 国立	4. その他 ()
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14 あなたの卒業した高等学校名を記入してください。

()

15 あなたの卒業した高等学校の所在地を記入してください。

() (都 道 府 県)

() (市 区 町 村)

16 【以下の選択肢で最も当てはまる番号一つに○をつけてください。】

あなたは大学をどのような方法で入学しましたか。

1. 一般入学試験	2. ICU 特別入学 選考(AO 入試)	3. 指定校推薦入 学試験(キリス ト教学校教育 同盟加盟校)	4. 指定校推薦 入学試験(その 他)
5. センター入学 試験	6. 編入試験	7. 社会人特別 入学試験	8. 9月入学制度

ご協力ありがとうございました。