

The Diversification of University Entrance Examinations in Japan
and High School Students' Perceptions of Merit

大学入試の多様化と高校生の能力に関する意識

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Dedication

To my past, present and future students who make me feel alive more than anything in the world.

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Chapter 1: Introduction

One of the greatest lessons modern societies have learned from World War II has been that education could help prevent a number of disasters. Experts from the GHQ¹ knew this all too well and the need to redesign the Japanese education system after World War II was clear. Hence, under its influence, the Fundamental Law on Education was established in 1947, replacing the Imperial rescript of 1872 (Galan, 2004). Education, which was no longer limited to a small elite, became a national obsession, and Tokyo University was seen as the ultimate reward, promising a stable job in a prestigious corporation which would become the graduate's family thereafter (Cummings, 1980; Cutts, 1997; Rohlen, 1983).

During the same period, the massification of education produced a new organizational model called "education-based meritocracy" (Goldthorpe, 2003). Consequently, credentials became the basis for social hierarchy (Dore, 1976; Yano, 1998). In Japan, this education-based meritocratic system – J-mode meritocracy (Kariya, 2000) – used a few principles which made the entire system seem fair and the subsequent university selection acceptable: a unique entrance examination. Effort was seen as the key to success, and more specifically, the belief that every individual had equal capacity to produce effort in a classless society (Galan, 1998; Yamamoto & Brinton, 2010). In addition, postwar Japan's rapid economic growth reinforced social actors' trust in the system all the more so as the meritocratic model fulfilled its promises: the better the credentials, the better the job was to be.

¹ General Headquarters were in charge of Japan's demilitarization and democratization between 1945 and 1952.

However, this model encountered several problems which eventually considerably impaired its legacy. The first was at the demographic level: becoming a victim of its own success, the model led to more and more people applying to university. However, the baby boom generation forced the system to adjust in order to meet its demand for more education. A first change to this meritocratic system happened in 1966 with the introduction of a different selection process – recommendation procedures which enacted different admissions rules (Nakamura, 1996; Sasaki, 1990). Needless to say, discontent spread, but in time, there was growing acceptance of the new arrangement. Recommendation procedures were more or less confined to low-level universities while institutions at the top of the university hierarchy remained untouched in their exclusive use of the general entrance exam.

Afterwards, the university entrance selection system remained almost unchanged for a decade until the introduction of a supplementary screening procedure as another measure to subdue the national obsession generated by the Japanese meritocratic model. In 1979, this measure, known as the National Preliminary Scholastic Achievement Test, which subsequently became the “National Center Test” in 1990, was introduced. These tests were to reduce the number of candidates taking the general entrance exam at national and public universities by obliging applicants to take a first screening test administered nationally.

At the beginning of the 1990s, the rapid economic growth, which Japan had enjoyed for more than 30 years, suddenly ended. This brought about considerable changes within Japanese society. One change was the slow demise of its lifelong employment and seniority promotion systems which had kept the meritocratic model running. Another was the increasing inequalities between social classes which, despite the general consensus that Japanese society was a giant middle-class, had already existed. The end of the Bubble era revealed another limitation within the Japanese meritocratic model: the inadequacy of the workers it produced with an economy desperately in need of new and innovative talents (Galan, 2006). The meritocratic system created

skilled and diligent bureaucrats which allowed the postwar Japanese economic miracle to happen. However, they were not prepared to face the economic crisis and find a solution to it. Even though criticisms regarding this lack of creativity and the model of society engendered by the J-mode meritocracy were not new, it accelerated the beginnings of a *yutori* (“low-pressure”) movement symbol: the Admissions Office (AO) procedures (Bjork & Tsuneyoshi, 2005; Tsuneyoshi, 2004). These AO procedures were to be the antithesis of the standardized tests as these procedures did not select based on how good of a crammer a student was, but rather on who the student was. Similar to the prior recommendation procedures, these procedures created turmoil and an obsession with the subsequent lowering of academic standards that were feared by proponents of the J-mode meritocratic model (Tsuneyoshi, 2004).

Fifteen years have passed since their official introduction. None of the diverse types of entrance examinations have disappeared. On the contrary, they have gained ground and are subject to satisfaction, frustration and adjustments by universities. Newspapers regularly report negative assessments of graduates who have entered the labor market with more customized forms of exams (Asahi Shinbun, 2012). However, what remains unknown is what students, who are now faced with these various entrance exams as potential gateways, think about the current system. These students represent the greatest number among the social actors involved in the process, but because they are considered unable to understand the situation they are usually ignored and their voices remain unheard.

This causes a problem, particularly in light of the limitations of standardized tests to select human resources for the labor market. If students are not given a voice, there is a considerable risk that policymakers will pursue a top-down relationship, relying on the notion that harmony rules Japanese society and conflict is avoided. However, feedback from students is arguably crucial in identifying issues linked with the changes that have been made in the meritocratic model. Indeed, high school students can shed light on a system that, without their viewpoint,

could remain the exclusive creation of technocrats and researchers who are disconnected from the realities of the field.

Pilot Study: a First Glimpse into the Field

During September 2013 a first pilot survey was conducted in a high school (High School A) and in October 2013, another pilot survey was conducted in a second high school (High school B). Both high schools were located in Tokyo and part of larger private educational complexes, with their respective shares of students going to universities attached to this educational complex: 32.12% of its student body from High School A and 54.3% for High School B. The average school index of students' written test proficiency, known in Japanese as "*hensachi*" and reported by Obunsha²'s data (2012) was at 70 for High school A, while High School B *hensachi* was at 64 (*hensachi* uses z-score mechanics and usually scales between 75 for the most proficient students and 25 for the least proficient). Two hundred twenty-five 12th grade students in High School A and 113 12th grade students in High School B answered the questionnaire. Statistics clearly indicated that the high school students had a variety of points of view on whether existing university entrance exams were valid instruments of selection (for university admission) based on whether the results of respective exams were considered accurate measures of demonstrated ability or achievement (see Appendix 1, p.165). This pilot study as well as my Master's degree thesis, and job-related interaction with students (as a Teaching Assistant for both my home university and an organization specializing in multicultural events) demonstrated that students may not necessarily understand the system the same way researchers and policymakers do, but have their own opinions of the system.

² Obunsha is a publisher specialized in school and education-related publications (textbooks, guides, magazines, dictionaries). Among others, it annually publishes a detailed guide on high schools in Tokyo, Chiba, Kanagawa and Saitama.

However, understanding perceptions of the system is one thing, but examining the literature to try to identify what explains these perceptions can further our understanding of merit even more, and can potentially have practical applications. This brings us to the second goal of this dissertation: providing empirical verification of several of the most influential theories to date on what motivates merit perceptions, by using data from respondents' personal backgrounds. Lastly, the results obtained in the first, quantitative phase of the study are to be interpreted together with accounts of students' understanding of their own schooling experience through the use of qualitative methods to bring more potential avenues for further research. The entire study thus uses an explanatory mixed method design (or QUAN-qual model) (Gay et al., 2009). The quantitative phase consists of Ordinal Logistic Regression Analysis and the qualitative phase, analysis of questionnaires comments, as well as focus-group interviews and field notes (informal interviews with teachers).

This dissertation is organized in the following way: Chapter 1 introduces the research topic and draws attention to why it should be studied; Chapter 2 provides background explanations on the Japanese education landscape, focusing on the various university selection procedures; it also reviews the literature on merit and Japanese meritocracy; Chapter 3 describes the design of the research and provides a theoretical explanation of the concepts used in the study, as detailed in the conceptual framework; Chapter 4 focuses on the methods used to analyze the research questions and presents how the concepts were operationalized; Chapter 5 presents the quantitative results of the study, both from descriptive and inferential statistics; Chapter 6 presents the qualitative findings of comment analysis, focus-group interviews and field notes; Chapter 7 summarizes and discusses the results obtained; and Chapter 8 concludes the dissertation, presenting the limitations of the study and directions for future research.

Chapter 2: Procedural Diversification in University Selection in Japan and Elsewhere and the Necessary Update in the Definition of Merit

This section describes the structure of Japanese higher education, the challenges brought on by the low birthrate and the various university entrance exams universities currently use. The goal of this section is to give a clear picture of the background for the study, as well as reviewing the existing literature on merit and meritocracy.

I. The Structure of Japanese Higher Education

Japan's higher education system is made up of *kokuritsu* (national), *kouritsu* (public) and *shiritsu* (private) institutions, which can be further divided into three basic types: *daigaku* (four-year universities), *tankidaigaku* (junior colleges) and *koutousenmongakkou* (technical colleges). Seventy point nine percent of high school graduates pursue higher education degrees, including universities, junior colleges and technical colleges (MEXT, 2015a; Japan was ranked 37th by the World Bank in 2011 in terms of total enrollment ratio in tertiary education, World Bank, 2011). Four-year universities accommodate the vast majority of students in Japan. As Table 1 indicates, there is a total of 781 four-year universities (86 national, 92 public, 603 private), 352 junior college (18 public, 334 private) and 57 technical colleges (51 national, 3 public, 3 private). The student population (including graduate school students) comprises a total of 3,049,740 students (2,855,529 for universities, 136,534 for junior colleges, and 57,677 for technical colleges). Japan has a comparatively high rate of high school students pursuing higher education with 53.8%

(563,268 high school graduates) of them going to four-year and two-year universities (*Heisei 26 nendogakkoukihonchousa (kakuteichi) no kouhyounitsuite* [On the publication of the results of the basic school survey from the 2014 School Year], MEXT, 2015a).

Table 1. Type, Number of Higher Education institutions and Respective Student Population Enrolled

	Four-year Universities	Junior Colleges	Technical Colleges
Total	781	352	57
National	86	0	51
Public	92	18	3
Private	603	334	3
Student population	2,855,529	136,534	57,677

Note. Source: created by author.

Universities are ranked both by selectivity (using *hensachi*³) and by the number of their graduates that enter prestigious professions (e.g. lawyers, high rank civil servants, doctors, big company managers; Aso, 1991). National universities usually rank at the top of the hierarchy but several private universities, particularly located in the eastern part of Japan, have proved to be serious competitors for the top tier. This selectivity index is in no way based on official data but is established by shadow education institutions (*juku* and *yobikou*) through a database of ongoing mock exam scores, administered with actual previously conducted university entrance examinations. Shadow education institutions, in this sense, aim at providing a numerical value of a student's achievement in mock entrance examinations, approximating real exams as closely as possible, to derive these students' odds at succeeding on actual university entrance examinations. Despite the unofficial nature of *hensachi*, university rankings based on this index are easily accessible to anyone. Prospective students usually adjust their aspirations depending on their own personal *hensachi* and previously admitted students' average *hensachi* at a specific university or faculty.

³ It is important to note that *hensachi* only relies on standardized written tests and not on customized forms of exams. Given the diversification of university entrance procedures in Japan, its relevance as an accurate assessment of a given university department seems more and more questionable.

Students wishing to enter higher education usually do so by applying to several universities and going through entrance examination procedures that vary across universities and also across faculties within a single university. It is important to note that national university exams are scheduled on the same day, limiting students' possibilities to only one school⁴. Private universities have more freedom in this respect, allowing students to take a few different private university exams as long as they have the resources to pay for multiple exam fees, all of which are expensive⁵. Throughout the post-war era examinations diversified and now many universities offer various avenues for admission depending on students' respective backgrounds. Students who fail to enter their first-choice university usually settle for their second or third choice (as long as these attempts are successful) or become a *rounin* (literally "lordless samurai," the common term to describe students who have graduated from high school but were not accepted into a university and, as a recourse, take an additional year to prepare for the following year's exam).

II. The Declining Birthrate

Since the end of the 1950s, Japan has experienced a drop in its birthrate (Galan, 2004; Kinmoth, 2005) and this trend has continued without stopping (Ministry of Health, Labour and Welfare, 2015). If children (under-15-year-old individuals) represented 35.4% of the population in 1959, they only accounted for 12.9% of 2014 population according to the Ministry of Internal Affairs and Communication (2015). Meanwhile, as Figure 1 shows, the number of universities has been steadily increasing.

⁴ I will nuance this by mentioning that students can in fact have a second chance to take tests for certain national universities, since a second date may be scheduled quite close to the first one. However the second test usually only accepts an extremely low number of applicants (e.g. in 2015, Tokyo University recruited a total of 3,144 candidates through the general entrance exam, 2,995 from the first test, 100 from the second one; University of Tokyo, 2015).

⁵ This seems sensible particularly when candidates do not live in the same city as their targeted university taking into account travelling and hotel fees.

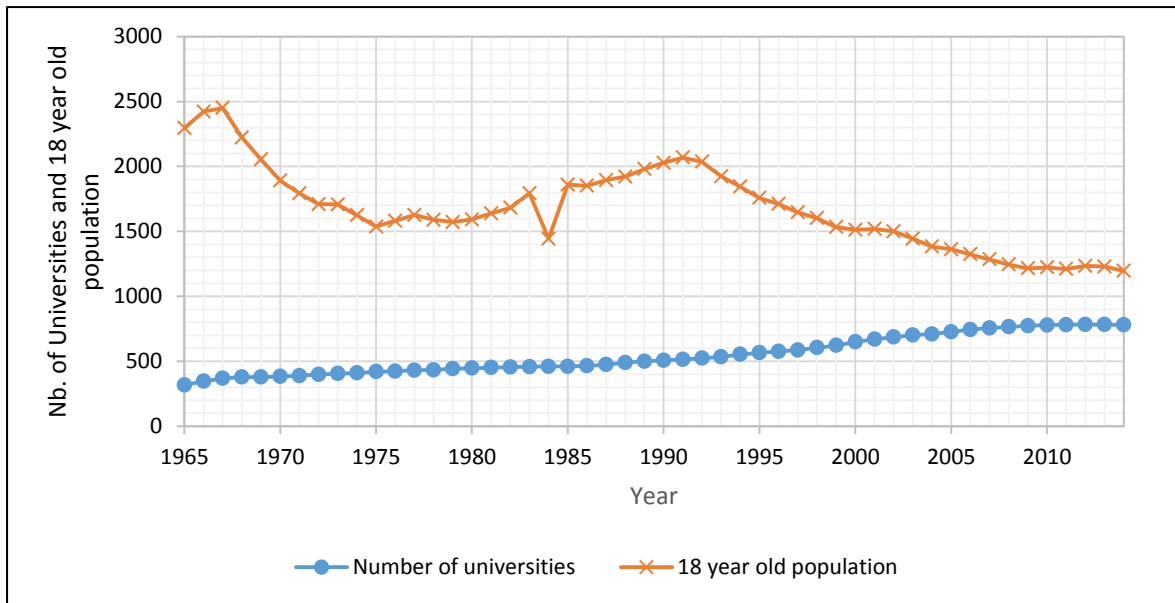


Figure 1. Evolution of 18 year old population (expressed in thousands) in comparison to the number of universities from 1965 to 2014. Based on Statistics from the MEXT and the MIAC. Source: created by author.

As universities in Japan are heavily dependent on their students' tuition fees, the drop in the 18 year old population presents a dilemma. On the one hand, ensuring the financial viability of the institution through tuition fees is necessary. On the other, they need to stay selective enough to protect their own reputations (Galan, 2004).

This is precisely where the diversification of university entrance examinations can appear as a salvation for universities. Lowering the standards of their general entrance exam is visible and damages their selectivity. However making use of various entrance exams implies setting standards based on different understandings of merit which are more abstract in essence and proper to the university's unique characteristics. That is why a number of scholars⁶ have criticized new forms of exams as simply being decoys introduced as band-aids to salvage the balance between financial viability and selectivity. Indeed, some institutions may very well use exam diversification this way while others have viewed it as a genuine avenue for diversifying their student body (Nakamura, 2012).

III. Entrance Exams in Japan

⁶ See for instance Kinmoth, 2015

This section focuses on the development of a diverse set of university entrance procedures in Japan, namely general entrance exams, the Center Exam, recommendation systems, special admissions, and admission offices (AO) procedures. It aims at re-contextualizing the development of each exam according to the needs of Japanese society at the time of its introduction.

A. *Sentaa Shiken* (The Center Exam)

The Center Exam's roots are found in the *Daigaku kyoutsuu daiichiji gakuryokushiken* (National Preliminary Scholastic Achievement Test), created in 1979 (MEXT, 1993a, 1993b). The name was changed to the National Center Test for University Admissions (hereafter "Center Exam") in 1990, as the exam's management was given to the *Daigaku Nyuushi Sentaa* (National Center for University Entrance Examinations), an independent administrative institution. Given the promises for a stable and prestigious career if one passes the general entrance exam, the vast majority of applicants became motivated by the potential luck they hope to have at the exam. Therefore, the Center Exam and its anterior version were supposed to act as a first filter for the general entrance exam administered at public and national universities (Amano, 2003). The application process thus became a two-step procedure. First, candidates had to take the Center Exam in the subjects related to the department they were targeting at university and, if considered satisfactory by the university they wanted to apply to, they were allowed to take the general entrance exam. The National Preliminary Scholastic Achievement Test assessed applicants slightly differently in that the subjects were pre-selected requiring proficiency in all subjects despite one's targeted university department (Aspinall, 2005). By asking for the results of the Center Exam, universities eliminated a considerable amount of work, in particular as regards

correcting copies of poorly prepared candidates⁷. Therefore, the Center Exam's first purpose was clearly to produce a “cooling down” effect, by reducing the pool of applicants for the national universities’ respective general entrance exams (Amano, 1999). Nowadays this system is used by virtually all national (82 out of 86) and public (82 out of 92) universities and a large number of private universities (521 out of 603) (National Center for University Entrance Examinations, 2015). Contrary to its former version, however, the Center Exam today allows private universities to make use of it as well (Aspinall, 2005). This has resulted in some private universities requiring only the Center Exam score for application and selection, without any supplementary exam. Furthermore, to address a growing concern about English language skills and the desire to reduce the grammar-analysis approach to English, the exam has offered an optional English listening component since 2006.

The future of the exam is, however, unknown. The *Nihon Keizai Shinbun* indicated on June 6th 2013 that the government wishes to terminate the Center Exam and replace it by an exam called the “*Toutatsudo Tesuto*” (Achievement Test). In its report of June 26th, 2013 the *Kyouiku Saiseijikkou Kaigi* (Commission on the Implementation of Education Renewal) reported studying various countries’ tests such as SAT (United States), GCSE (United Kingdom), Baccalaureate (France) or Abitur (Germany) in preparation for its creation. The test would be divided into two series: *kiso* (basic) and *hatten* (development), with the aim to evaluate two different sets of aspects of students’ achievement. The first one (*kiso*) would serve as an assessment tool of a student's academic level and could be used in guidance for higher education prospects or as a complementary file for the AO, recommendation procedures, or even for future employment prospects (MEXT, 2015b; MEXT, 2014; Prime Minister of Japan and His Cabinet, 2014). The second (*hatten*), would serve specifically within the context of proceeding towards university, serving as a comprehensive assessment tool of a student’s preparation (including an academic knowledge

⁷ The advent of computerized corrections thanks to the multiple-choice question format may have considerably weakened this aspect. However, some universities do keep questions in their general entrance exams that require a human corrector.

component but also motivation and critical thinking skills assessments) for studies at the tertiary level (MEXT, 2015b; MEXT, 2014). It remains unknown whether and how such an exam will be implemented, given the radical changes that would be necessary in the curriculum, particularly in regards to the portion devoted to evaluating students' extracurricular activities and reflection capacities.

B. *Ippan Nyuugaku Shiken* (General Entrance Exam)

Inherited from the Chinese civil servant selection system, the *ippan nyuugaku shiken* (general entrance exam) is the main instrument of the Japanese meritocratic system. However, to be as objective as possible, it relies essentially on multiple-choice questions and short answers, limiting the need for a corrector's interpretation (Kariya, 2010; Rohlen, 1983). Indeed, as universities at the top of the hierarchy tend to offer the best career options in the labor force, their selection generates a lot of tension from applicants and their families. This social frenzy is referred to in the literature as "*juken jigoku*" (exam hell), a term that illustrates public concern and applicants' hardships in the race to be accepted to university. Objectivity thus obviates polemics about selection results. The higher the university is ranked in the hierarchy, the more it tends to rely on this form of exam for selection (e.g. Hitotsubashi University, 2012). Indeed, exam preparation requires long hours of cramming, which prevents students who aim for the top tier from devoting time to diverse activities (sports, arts, travel, etc.). There is ongoing debate about the positive and negative aspects of such a system, in particular focusing on the ideology behind the measurement of cramming ability (Tsuneyoshi, 2004; Tsurumi, 1998). As a high school's performance is measured on its ability to send large portions of its graduates to the best regarded universities or list alumni who occupy prestigious career positions, high school teaching styles

tend to become quickly polarized, inevitably serving the cause of exam preparation⁸. As universities have a given number of places for admission each year, competition can become fierce to access the best universities. Not surprisingly, statistics enumerating characteristics of successful candidates abound (mainly from *juku* and education-related companies such as Benesse or Obunsha) when the selection results are announced, thus identifying the best feeder high schools for the universities at the top of the hierarchy (Cummings, 1980; Rohlen, 1983).

One reason why such an exam has served the Japanese meritocracy so well until now is found in the ideology that governs it. With multiple-choice and short answer questions testing cramming ability, the discourse on how success can be achieved has revolved around the notion of effort (Kariya, 2010; Yoneyama, 1999). It is not seen to be by virtue of personal background that success is achieved but by putting forth the necessary effort in cramming. This resolve to devote oneself to memorizing leads to exam success, since all the applicants face the identical, objectively designed challenge at the same time through answering multiple-choice questions. As Cummings (1980) wrote, this exam measures the devotion students put forth in mastering this factual knowledge. This implies that they would be able to use similar devotion once they enter the labor force, which is a particularly important asset for corporate employers.

On paper and during the exam time, both the objectivity and the egalitarian nature of the exam (personal background influence limited) make it seem to be the best possible basis for the resulting social hierarchy. Indeed, anybody can rise to the top ranks, as effort is the key. This effort ideology may perhaps be holding its ground in Japan; however, this would mean ignoring things such as inborn abilities and early childhood education, also in addition to family background (which can matter in many other ways than just cultural capital), as well as the rank of the school applicants attend. Economic and cultural aspects cannot be ignored in determining

⁸High school brochures publicize the number of their graduates who have been accepted to universities, not the means they used for getting in. However, due to the university entrance results calendar and its influence on students' pressure to study, schools vary in their sensitivity to the entrance exam types chosen by their students (from field notes, informal interviews).

success in the exam (Micceri, 2009). In many cases, a child's education requires a lot of financial investment (tuition fees, shadow education fees, etc.), but also a proper environment at home if families want their offspring to prepare in optimal conditions. Baker and LeTendre (2005, p. 58-59) showed that Japan was among the countries that use shadow education most in the world. Moreover, Aramaki (2002) mentioned that a school's ranking affects attitudes towards learning. This means that a generally more selective school tends to provide more opportunities to enhance students' motivation to work hard. In a sense, parents may have the resources and the desire to maximize their child's chances in the education system but in the end, the school plays a much more important role in the task of inculcating the learning attitudes required to pursue their studies.

It is also important to note that the general entrance exam was the only avenue available to enter university until the introduction of the recommendation procedures in 1967 (Nakamura, 1996; Sasaki, 1990). Furthermore, until very recently⁹ it was the only avenue for the top universities in Japan (Kyoto University and the University of Tokyo).

C. *Suisen Nyuugaku* (Recommendation Procedures)

The origin of the diversification of university entrance procedures is found in the recommendation systems, which were introduced in 1967. While addressing a demographic concern with the baby boomer generation arriving at the age to enter higher education (see Figure 1), this system was also introduced to alleviate universities' burden to organize the general entrance exam. Indeed, the dramatic increase in potential applicants brought on by the baby boom generation left universities with a plethora of candidates for a dramatically small number of places, and universities were unprepared to deal with such a high number. This system, however, which followed different rules in terms of selection and the authorities involved in the decision-

⁹ The University of Tokyo started using recommendation procedures and Kyoto University started using AO in 2015.

making process (university and high school officials), triggered criticism from teachers and the public alike, who saw this system as a gateway for lowering higher education's academic standard: labelling it as a "backdoor entrance" (Nakamura, 1996). However, the combined efforts of the government and the High School Principals' Association, along with the enthusiastic support of mass media allowed the system to be adopted. It has since spread over time with now 76 national universities (out of 86) and 77 public universities (out of 95) currently using it.

It is also important to situate the development of Japanese higher education as part of a global trend and not something limited to Japan (Altbach, 1999; Schofer & Meyer, 2005). As Schofer & Meyer (2005) showed, several factors explain this trend and in particular global institutional changes in the 1960s such as democratization and scientization. Altbach (1999) also depicted higher education as being rather limited in most parts of the world until the 1960s, and he identified the 1990s as a turning point in mass and universal access to education.

Recommendation procedures in Japan usually include documentary screening (high school grades and students' internal reports – *naishinsho*) and, most of the time, short interviews or essays. There are two entities involved in the decision-making process and not just the university alone. High school officials conduct a first round of screenings in order to choose who will receive recommendations and university officials conduct a second round to confirm or invalidate the given high school's recommendation. It is important to note that recommendations come in a variety of forms but are based on connections between high schools and universities which are not limited to pure academic achievement. The nature of the link that connects the high school and the university can be rooted in various types of objectives (academic, corporate, religious, etc.).

The most common form remains using academic criteria: a university, recognizing a high school's excellence will agree to review a few recommendations submitted by the high school (named generally *shiteikou suisen* "designated school recommendations"). On this account, Carbonaro's (2005) typology of student effort is useful as it defines effort of three different kinds:

rule-oriented, procedural and intellectual. While in the Japanese case, intellectual effort defines achievement, it is also very likely that recommendations take into account rule-oriented effort and procedural effort as selection criteria (reported, in the student's *naishinsho*¹⁰, as Horio, 1993, mentions). Therefore, if recommendation systems are primarily based on achievement measured through a student's GPA, they also take into consideration certain criteria, linked to the individual's background, which are then left to the high school officials' discretion to evaluate, even if sometimes seemingly arbitrarily.

Moreover, some recommendations are linked with being a member of a particular network or the same educational complex (*naibu shingaku* "internal promotion"). Internal promotion is particularly common in the Tokyo Metropolitan Area where several high schools are respectively part of larger educational complexes¹¹. The percentage of students in these complexes who go from high school to university by using internal recommendation procedures varies from one university to another and often from one high school to another. This internal promotional system has received criticism, sometimes with implications that money alone was buying university entrance and not some form of merit. Nevertheless, its existence as a valid option within the potential gateways to university qualifies it as a legitimate entrance procedure (at least in the eyes of the educational complex using it). Its presence in the university selection procedural landscape, however unique it may be is therefore important. Admission to university through this process is, on a theoretical level, proof of an applicant's merit. Indeed, the education-based meritocracy has been assigned to select deserving students for society, based on the recognition of their demonstrated ability or achievement. Thus, it is possible to infer that despite the fact that these students face a radically different reality by avoiding the so-called exam hell, the internal promotion system still sorts them based on their merit, measured and certified both by the high school delivering the recommendation and the university accepting it.

¹⁰ The confidential student file contains a variety of information on his or her schooling. Its access is limited to school personnel and primarily designed to be used in decisions linked to the students' pursuit of studies.

¹¹ The presence of large and prestigious educational complexes in the capital is a phenomenon common to many centralized countries

In other words, because such a system was implemented as an ostensibly valid form of selection procedure within the context of the meritocracy that internal recommendation procedures have to be represented.

It is important to mention that the strategy of using the recommendation system to enter a specific university requires parental planning in the choice of school. Indeed, the connections between high schools and universities are unique to such relationship. Therefore, an optimal use of the recommendation procedures to enter one's targeted university requires examining all the options available for each high school before choosing a specific one. In fact, this planning can be a long-term project since some educational institutions, which are private and most of the time elite, have all the different school levels, from elementary to university. It can also be very costly but allows applicants to completely bypass the "exam hell." Even though this exam has been criticized, it has kept a strong statistical link with academic achievement in high schools (as it requires grades reports; Hiss & Franks, 2014; Murayama, 1998), which is not necessarily the case for the other types of admission procedures, as will be discussed in chapter 6.

D. *Tokubetsu Senkou* (Special Admissions Procedures)

Tokubetsu Senkou (Special Admissions Procedures) are another examination process, one which applies to a small number of applicants. This category regroups atypical applicant profiles: privately-funded international students, *shakaijin gakusei* (adults resuming studies), *kikokushijo* (returnees) and transfer students from vocational colleges. Assessment methods vary considerably but usually draw on the same standards as the recommendation system. Their emphasis on candidates' personal experience and unique profile is their main characteristic, as this restricts the applicants' pool dramatically. However, the decline in the 18 year-old population has forced universities to look at a variety of criteria that can be used to define good candidates. Looking into this cluster of student categories to maintain their enrollment number was thus a

logical move by universities given the low birthrate context (Galan, 1998). As a result, these students' atypical profiles contribute to the diversification of universities' student populations and the image of the universities themselves.

The majority of students who use this form of exam are from the "returnee students" category. The Ministry of Education has long pushed for the reintegration of returnee students into the education system, since well before the introduction of Special Admission Procedures in various universities. In AY 2015, the Ministry of Education indicated a total of 11,583 returnee students attending elementary, junior high and senior high school (MEXT, 2015c). Universities started to introduce Special Admissions Procedures for April entrants from the returnee student population around the same time. It is, however, important to note that certain internationally oriented universities, such as ICU and Sophia, have had Special Admissions Procedures for returnee students entering for September since the mid-1950s.

E. *AO Nyuushi* (Admissions Office Procedures)

In 1990, Shonan Fujisawa Campus, part of Keio University, introduced a new form of exam which radically contrasted with the usual standardized written tests. This form of exam, known as *AO nyuushi* (Admission Office Procedures), appeared at the national level in June 1997 in its second version of the Central Council for Education report, "On the state of our desired education for the 21st Century" (MEXT, 1997; Natsume, 2000). The text presented the need to introduce a selection process that would not only be based on academic skills but cover a wider range of skills among the applicants. This form of exam was officially introduced in 2000 in Public and National universities.

AO procedures have become more common since their introduction even though the number of universities using such procedures has stabilized over the last three years. Based on MEXT data, it is currently present in 46 national universities (56.1% of the total), 23 public

universities (27.7% of the total) and 469 private universities (80.9% of the total). Students accommodated through these procedures respectively account for 2,629 (2.6% of the total recruited), 604 (2% of the total recruited) and 48,129 (10.3% of the total recruited) (MEXT, 2015b).

The Ministry of Education had diverse goals when it introduced the system in 2000 but three were particularly central (Natsume, 2000):

- Introducing a comprehensive selection process to scan university applicants' merit
- Alleviating the burden of "Exam Hell" resulting from university entrance competition
- Introducing a variety of talents onto the job market

The single paper test, characteristic of the general entrance exam and the Center Exam, was to be replaced by a variety of assessment tools which would be used to sort applicants. The main tools considered were documentary screening, short essays, interviews, and performances. But due to the very flexible guidelines given by the Ministry at this time, other tools such as presentations, comprehension tests of a mock class or group discussions entered the process throughout the years subsequent to the AO being introduced in 2000 (Ohsaku, 2008).

Building a comprehensive selection process is a step MEXT has taken to address the Exam Hell phenomenon which has often been given as the problem which deprives high school students (and even junior high school and elementary school children from ambitious families) of their youth for the sole purpose of cramming (Nakamura, 1996; Natsume, 2000,). Indeed, standardized tests are designed around short answers and multiple-choice questions, and its format tests students' cramming ability more than their critical thinking skills. Besides, criticism has also underscored the damage ultimately inflicted on young minds by educating youth around a "one-right-answer" type of logic (Tsurumi, 1998). Aside from this aspect, the screening process involved in AO procedures also places the emphasis on demonstrating one's motivation to study at a specific university. In terms of theoretical implications, as Ohsaku (2008) stated, academic proficiency is only one side of merit, not merit in its entirety. Liu (2010) reminds us that merit is

subjective in nature. Thus, universities through the AO procedures they design, extend the definition of merit often beyond academic proficiency.

F. Diversification of Entrance Procedures and the Pluralization of Merit

The diversification of university entrance procedures is now inscribed in Japan's education-based meritocratic vision. Diverse university entrance procedures currently scan various skills and, arguably, experiences, in the applicants and these all are viewed as reflecting different forms of merit. University entrance procedures are designed according to their university's definition of merit. This definition is legitimated by the role assigned to them as merit-based selection entities within the education-based meritocracy. This brings forth the question of how merit should be subsequently defined under the new circumstances introduced by the diversification of university entrance procedures.

Entrance exams may be ranked on a continuum based on their degree of standardization (see Figure 2). Standardization of the exams refers to the extent to which individual differences are discounted when assessing students. If I try to give a broad picture of the exam system in Japan, it is possible to oppose Achievement-Oriented Selection Procedures (the Center Exam, the general entrance exam and recommendation systems) and Uniqueness-Oriented Selection Procedures (special admissions and admissions offices exam). This dichotomy underscores the weight given to individual characteristics when considering applicants. This dichotomy has methodological implications for my hypotheses and will be useful for classification purposes.

However, it is crucial to underscore that the reality is more complex, which is why a continuum offers an alternative representation of the exam system. The Center Exam (a) is placed on the far left of the continuum, as it is the most standardized form of exam.

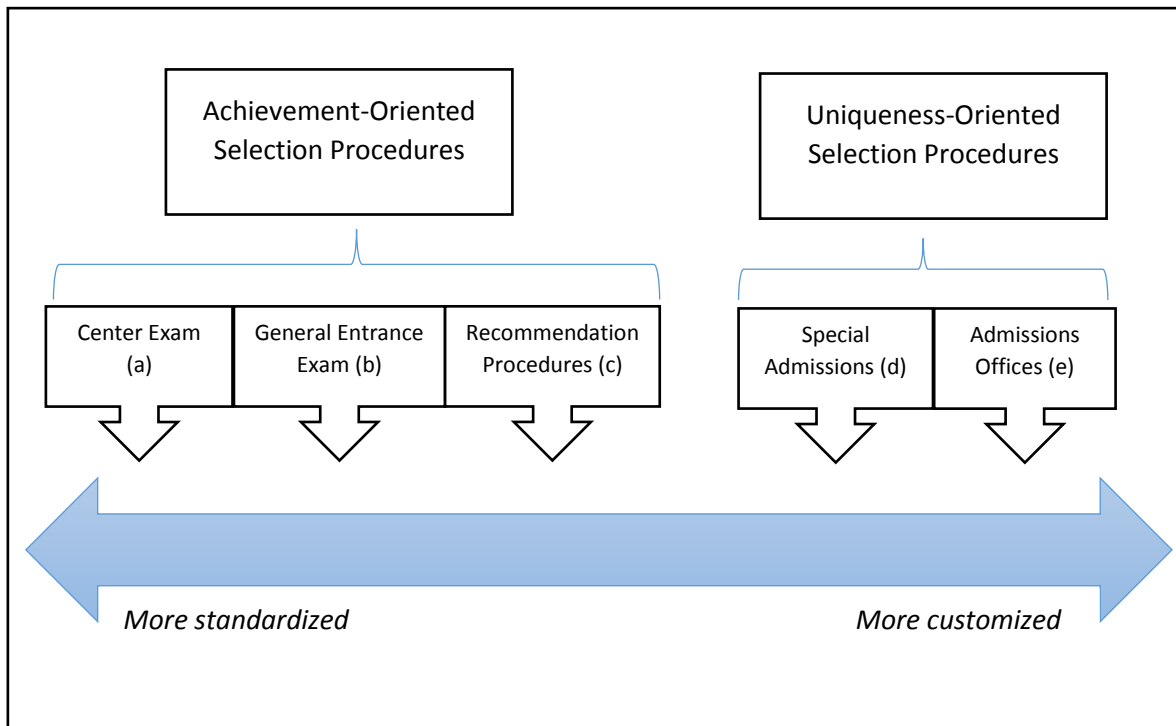


Figure 2. Continuum of Procedural Standardization. Source: created by author.

General entrance exams (b) are slightly less standardized since their difficulty level depends on the university. Nevertheless, they maintain a standardized nature as basically no consideration is given to individual differences in their design, administration and correction.

Recommendation-based admission (c) targets a smaller applicant pool, and universities vary regarding the number of students they recommend. Recommendations are based on a network of shared objectives within a university and its feeder high schools, and therefore recommendation types also vary depending on the university for which the recommendation is made. Recommendation systems are placed near the center of the continuum to reflect the standardized aspect which comes from using grades as a fundamental selection criterion while pointing out that the recommendation relies on the high school's trust in a few of its individuals from a designated cohort and that it is not only based on standardized achievement.

Special admissions procedures (d) concern a certain category of person, and are therefore directly linked to applicants' backgrounds. Anyone who does not correspond to the stated student category is disqualified from taking further steps in this admission application process. However,

the rigidity of this category, as well as the AO category, calls for a lesser degree of standardization, one which is less institutionally organized than recommendation systems (i.e. high school attended) and more individualized, to account for applicants' uniquely valuable achievements within their respectively special circumstances.

"Admissions Office" procedures entail the use of a variety of assessment tools, given the nearly infinite number of achievement categories, and they call for more purely personal skills, which the applicant develops through time, such as superior sports or arts abilities. Therefore, their degree of customization naturally places them to the far right of the continuum.

These different types of exams call for different means of assessment which greatly vary in terms of the applicants they target. The recent use of these diverse procedures for admission decisions therefore comprises an attempt to reward those who succeed in the diverse challenges entailed: those who achieve a form of merit based on the support provided by their SES, inborn abilities (which avoid the screening process), effort mobilization capacity and personal experience. The diversification of university entrance procedures has, thus, introduced a multi-dimensional approach to merit.

IV. Global Trends: Examining The US and French examples

The diversification of university entrance procedures in Japan is not an isolated case. It follows a global trend where a diverse student body is very important for universities at many levels. If academic selectivity is the primary role of the recruitment process, reducing selection to test scores is no longer satisfactory for many higher education systems around the world. In the case of the US, higher education institutions have therefore developed a complex system of documentary screening procedures, using "*essays, letters of recommendation and often interview write-ups.*" (Laird, 2005; p.14-15). Student applications are an interplay of "*academic performance, sex, race and ethnicity, athletic ability and legacy status*" (Espenshade, Hale & Chung, 2005) which

help university admission staff make a “story” of their applicants (Stevens, 2006). Laird (2005) adds that subjectivity is an unavoidable and necessary, but nonetheless controversial component of the selection process given the objective to recruit a diverse and promising student body.

A. USA

A trend in the US for university admission procedures has been the celebration of diversity in their students, primarily geographical (as well as whether feeder high schools are public or private) but also ethnic (Bollinger, 2005; Laird, 2005). This has called for the development of “the frog pond” theory when evaluating a student’s chance to get into college (Attewell 2001; Espenshade et al. 2005). This theory considers that, with regards to the interest universities have in selecting students from a variety of places and not from one specific feeder high school, students who actually do well have more chances to get into their desired selective college if they rank in the top positions of a less selective high school than if they rank well in a selective high school. Also, university and college ranking usually include a number of top high school students entering the freshman class. Consequently, choosing from a variety of high schools allows for more students from the top of their class than focusing on one or two high schools (no matter how good they are). As Davis says, “*It is better to be a big frog in a small pond than a small frog in a big pond.*” (Espenshade et al., 2005)¹².

Admission to higher education institutions in the US is primarily based on academics and there are a certain number of ways students can prove their academic abilities. The high school student's GPA, standardized tests scores (SAT I and SAT II), number of Advanced Placement¹³ courses (and their test scores) and honor courses constitute the academic background of the applicant (Espenshade et al. 2005). Micceri (2009) points out that so-called 'standardized tests'

¹² This is particularly the case for elite institutions, which can attract the students with the best academic records.

¹³ Tertiary education-level courses offered to high school students.

are, in their conception, biased and tend to perpetuate social hierarchies. However, as previously mentioned, factors such as sex, ethnicity, athletic ability and “legacy status” (connection to alumni of the given institution) tend to complete the picture, even though these elements are not intrinsically representative of education-based merit in the first place (Stevens, 2006; Espenshade et al., 2005). Yet, these (ostensibly) academically “good,” but not “top” of the class, high school students who are accepted to selective colleges have a very important role in maintaining the college’s image while also providing geographic diversity. A sexually and ethnically diverse population that has some good athletes and wealthy students from both public and private high schools across a broad geographic expanse better reflects American society as a whole. What is more, the importance of sports, and most of the time, of having a competitive football team, at the college level allows for inter-collegiate sports events. The presence of a given college in a specific football league usually creates the impression of shared prestige among the member colleges. Consequently, member colleges do not appear as standalones which would require potential applicants to start from zero when looking for information about each one. Rather the college’s association with a group of other colleges that carry a certain prestige level entices applicants when deciding where to apply (Stevens, 2006).

B. France

France is characterized by an organizationally complex education system that provided the backdrop for Bourdieu’s theory of social class reproduction. Even though the Bologna process has helped standardize European tertiary education system in terms of degrees¹⁴; by allowing more flexibility in student and teacher mobility across the continent, the complex nature at the secondary level persists. The connection between the school and one’s culture is fundamental in determining one’s success (Tenret, 2010). An example is found in the Ministry of Education’s

¹⁴ Known in France as the LMD system (Licence – Bachelor’s degree – , Master, Doctorate)

statistics on the awarding and success rate of the *baccalauréat* (a comprehensive final high school exam in all subjects, with variations between students' chosen specializations) on students' parental socio-professional categories, the category with the highest rate of success is that of teachers (Ministère de l'éducation, 2011). The *baccalauréat* is only one example of this complexity, but depending on the track students follow, they take a different type of *baccalauréat*. The simplest distinction is between "general" (academic), "technologique" (technical) and "professionnel" (vocational). The first category usually leads to long-term studies; the second, short-term studies and the last to apprenticeships. Each category is then divided according to specialization (in turn, often subdivided) resulting in a very dense and complex nomenclature with different outcomes.

However, even though educational paths are designed to lead to acquiring skills which are useful in the labor market, a commonly observed pattern has been the skills gap between what schools deliver and what the market demands. This gap results from academia's deeply rooted disdain for teaching vocational skills. Fauconnier (2005) points out the existence of prestige differences between subjects, mentioning that the more abstract a subject, the more prestigious it is¹⁵. Consequently, some tracks are seen as tremendously disadvantageous for those who would like to attend higher education institutions but who did not choose the right track from the start.

This point is reinforced by a double system in France regarding higher education; the coexistence of universities and *grandes écoles*. In its simplest form, their difference is based on their requirement of having to take an entrance exam. *Grandes écoles* usually set an exam (though nothing compel them to do so) to select their applicants while universities do not. The immediate result of such a system is to place *grandes écoles* (elite education) in a more prestigious light than universities (mass education). However, there is a hierarchy among *grandes écoles* which is far less tangible among the universities themselves (though it can be found as

¹⁵ This is visible in how much public attention Philosophy exam questions on the *Baccalauréat* attract each year. This is echoed by Robinson in a speech he delivered for TED in 2006 in Monterey in California (Robinson, 2006).

well). This hierarchy is built mainly on geographical and historical factors, with the most prestigious schools concentrated in the main urban centers (e.g. Paris, Lyon, Bordeaux). Attempts to decentralize the system have been made by opening specific faculties (named *antennes*) in diverse parts of the country¹⁶.

The prestige earned by entering a *grande école* is almost exclusively linked to the success of one's studies in a *classe préparatoire aux grandes écoles* (CPGE), a 2-year post-secondary but not tertiary education entity. *Classes préparatoires* programs are offered in certain high schools (giving these very high schools a supplementary part of prestige in the hierarchy). These two years embody the elite track and though they focus on studying literature and have a very demanding curriculum, they offer, at a very high expense of stress, the necessary preparation to get into prestigious *grandes écoles* (Desplechin, 2012; Gumbel, 2012). Their existence poses a challenge to the defenders of the French education system as an open system when considering the population's social diversity of such classes. As Tenret (2011) reports, the overwhelming majority of students attending *classes préparatoires* come from upper-middle and upper classes, allowing avenues for social reproduction¹⁷.

The admission system for *grandes écoles* has however started to change in recent years with the increase of parallel admissions (admissions that do not require the two-years of preparation in *classes préparatoires*), encouraged by the Bologna process. These parallel admissions objectives specifically encourage students who have not taken *classes préparatoires* to prepare for the entrance exam, but instead who have used the university track (including foreign universities). This trend has been particularly visible in business schools, as they are more open to international students than the most prestigious and traditional *grandes écoles*. Parallel

¹⁶ However, their legitimacy at diverse level tends to be debated, particularly the gap in the quality of teaching between the local communities' *antennes* and the urban centers hosting the main institution.

¹⁷ It is worth noting that *classes préparatoires*, contrary to *yobikou* in Japan, are entities within high schools. Even though they prepare students to take *grandes écoles* entrance exams, they are also recognized as years of education on the National level, which can be advantageous in the case of transfers to university for instance.

admissions use the results from a number of multiple-choice question tests (e.g. GMAT, GRE, TAGE MAGE) and often English language ability exams (e.g. TOEIC, TOEFL, IELTS) and benchmark requirements are stipulated at the targeted schools. Some schools also host an essay-type of exam as a requirement for admission. Passing the written test phase usually leads to an interview whose content depends on the specific school's culture.

V. Merit, Its Definition and Implications for Meritocracy

Traditionally, social scientists, both conflict and consensus theorists, have attributed a selection role to schools, which means sorting students based on their academic achievement and preparing them for the labor market (Blackledge & Hunt, 1985; Okano & Tsuchiya, 1999; Van Leuwen, 2009). Therefore, for students, the very first step in this selection process is usually that of gaining access to the best school possible. However, the more popular a school is, the more applicants there are, by definition, and with regards to the number of school places, some will not be accepted. Selection procedures are therefore necessary, but on what criteria should they select applicants? How do universities define a good applicant? In the case of Japan, effort is certainly rewarded, as a lot of the knowledge required to pass the university entrance exams is based on cramming – the “J-Mode Meritocracy” Kariya (2000) speaks of. However, J-mode meritocracy has recently faced challenges of a different kind: since the beginning of the 1990s gaps between social classes have heightened (Chiavacci, 2008), and various means of assessment, which are not only based on the conventional cramming skills, were introduced in the 2000s. Recommendation procedures, introduced in 1967, have since been expanded with more and more universities offering recommendation procedures as a gateway (MEXT, 2012). Thus, defining a good applicant now requires a multi-dimensional approach. But this is not easy, and both universities and prospective students (and their families) have tried to adjust (or have, by default, become opposed) to the new procedures, giving rise to a discussion of the notion of “*Nouryoku*”

(primarily meaning “ability” but translates into “merit” within this context) and its definition (Ohsaku, 2008).

This section focuses on the link between modern societies and meritocracy, describing the meritocratic ideal and its operationalization in Japan. It also describes how, in Japan, the diversification of university entrance procedures has altered the traditional views on merit as purely “effort,” which is measured by standardized written tests.

A. Society and Meritocracy

From Max Weber’s point of view, modern societies are based on a bureaucratic form of organization (Weber, 1946a; 1946b). This bureaucratic organization is the result of a shift away from feudal societies, where a dominant family or clan (and particularly the head of it – or feudal lord) possessed executive power which he could use whenever necessary. However, as societies modernized and the decisional and executive power became difficult to concentrate in the hands of a single person, feudal lords started to gather counselors. Slowly, the power shifted to a group of “specialists.” These specialists eventually no longer required a feudal lord, or his group of counselors, at all. However, they were to be trained and the school institution filled this training role to become a central feature of bureaucratic societies. But perhaps more than the schools themselves, their tests and exams have attracted theorists’ attention, particularly because of the “certificate” (Millet & Moreau, 2011), which are the credentials the successful candidate receives. Ultimately, as Weber (1946b) states:

Above all, the development [of rational, specialized, and expert examinations] is greatly furthered by the social prestige of the educational certificates¹⁸ acquired through such specialized examinations. This is all the more the case as the educational patent¹⁹ is turned to economic advantage. (p. 241).

¹⁸Sheep skin or diploma.

¹⁹ Credential

Modern societies, built on the idea of meritocracy (giving people a place in society according to their merit), tremendously enhanced the school's role in sorting students (Blackledge & Hunt, 1985; Okano & Tsuchiya, 1999; Parsons, 1959; Stevens, 2006). As many modern societies reached the post-massification stage, including Japan, the selection and sorting role of school has been even more enhanced (Futao, 2012; Trow, 1973). In this system, the more advanced credentials one has, the better one's future chances on the labor market are (Dore, 1976). However, several researchers (Goldthorpe, 2003; Tenret, 2011) have pointed out that nowhere in the word "meritocracy" is there any suggestion that school should be the agent adjudicating merit. The school can measure a range of aptitudes but not in a holistic manner; some people just do not fit into the school's mold, though they are very capable individuals. Meritocracy is thus a deceptive word in a sense, and should better be understood as "Education-based meritocracy" (Goldthorpe, 2003), since this is closer to how modern societies actually allocate their human resources. There is also another parameter that is taken into account which led Kariya (2000) to define meritocracy in the Japanese case as "J-mode meritocracy," where effort itself is seen to be the measure of merit.

The meritocracy concept is therefore central since it deals with the openness of societies and with social justice. Openness of a society is understood as how much social mobility (most of the time intergenerational but also intra-generational or within a single individual's life span) is achieved (Merllié & Prévot, 1991; Van Leeuwen, 2009). Thus, a society is "closed" when no social mobility takes place and "open" when social mobility is constant; most of the time, societies fall somewhere between these two on a continuum (Blackledge & Hunt, 1985; Turner, 1960). Full-fledged meritocracy, similar to the dystopia fictionalized by Young (1958), would mean a fully open society, where anyone can rise and fall through some acceptable measure of merit.

B. J-Mode Meritocracy

As previously mentioned, Japan has long had a specific form of meritocracy where effort, measured by proficiency in cramming to learn factual knowledge, is the definition of merit. Indeed, considering the structure of the general entrance exam and the fact that it is the oldest and most widely-used entrance exam (at least for elite universities), merit has very often been defined in the Japanese case as “effort,” regardless of one’s individual characteristics and unique differences (Takeuchi, 1997; Kariya, 2000). Japan has an extremely centralized education system which means the national curriculum ensures that all students, wherever their school may be, cover the same material (Yamamoto & Brinton, 2010). Furthermore, as the structure of the general entrance exam is based on short answers and multiple-choice questions, grading does not require the corrector’s judgment. The difficulty of the exam lies in the quantity of knowledge students can manage and not, for instance, on their ability to construct logical, argued texts (Rohlen, 1983; Takeuchi, 1997).

i. Merit as “Effort”

Therefore when looking at the Japanese educational system, effort is viewed as an extremely integral part of achievement. It is even possible to say that Japanese people deeply believe that when it comes to success in education everything is just a matter of the effort an individual expends (Kariya, 2000; Takeuchi, 1997; Ueno, 2001; Yamamoto & Brinton, 2010; Yoneyama, 1999). Several intertwined factors explain this belief. First of all, Japanese education is indeed based on an intensely centralized curriculum, upon whose content written entrance tests are compiled (Yamamoto & Brinton, 2010). Therefore, one can easily see that there are generally no trick questions when considering entrance exams to university: the nature of the content is known in advance as it has been taught in school. This content requires nothing more than to be learned (or mastered, as opposed to thinking critically for instance). This type of learning was

traditionally achieved through cramming hours and those who devoted the necessary time to master the content were rewarded with a passing grade and admitted to the university of their choice. Kariya (2000) labels this “Japanese-type meritocracy” (p.213), a meritocracy where effort is the key to success and where those who have failed have no excuses: they failed because they didn’t put forth enough effort when preparing for their written entrance exam.

ii. Nuances Lurking within J-Mode Meritocracy

If the above-described situation certainly satisfied western observers of postwar Japanese meritocracy, it is important to nuance the discourse on effort being equal to merit. Indeed, J-mode meritocracy operates in a very particular context and its foundations have been shaken since the beginning of the 1990s. These nuances are found in the widening inequalities emerging between social classes, in the inborn abilities of individuals and in the diversification of university entrance procedures.

a. Widening Inequalities: Environmental Factors and Inborn Abilities

In J-mode meritocracy, as described by Kariya, merit was defined as “effort:” one’s sustained dedication to one’s studies without any consideration for personal background, as Japan was deemed to be a classless society (Chiavacci, 2008; Hashimoto, 2003; Ishida, 2010; Kariya, 2010; Nakane, 1970). While this idea of effort was never limited to Japan, the idea of a classless society is the salient characteristic of J-mode meritocracy. Understandably, until the end of the period of rapid economic growth in the early 90s, the boundaries between social classes in Japan were quite blurred, and gave the impression of a considerable middle-class, and highly mobile, society. However, these boundaries became much more apparent after the brutal end of this rapid economic growth (Brinton, 2010).

Research work by Bourdieu (1973) has brought to light a series of differences in school achievement depending on social class affiliation. Concepts explaining cultural and economic forms of capital are probably the most notable features in his work. Higher social classes were traditionally depicted as being the best prepared to make the most out of the educational system because they understood its mechanisms better than the other social classes. Moreover, higher social classes were seen as enjoying higher economic capital which not only provided more opportunities for their children but also a better understanding of where to channel such capital. For the Japanese university entrance selection process, this meant a variety of potential advantages which are independent of effort alone. An example is found in the work of Galan (2006) on neoliberal policies in education in Japan which indicate that after the reform of the national universities in 2004, a heavier burden now lay on families' economic capital when apprehending the varied system of national universities.

As regards to the notion of merit and effort, Young (1958) and Tenret (2011), in their attempt to define merit, considered effort to be just one part of the equation. Whereas Young restricted it to Intelligence (that is, inborn abilities), Tenret suggested a definition of merit as "capacities." By this, Tenret (2011) meant everything the applicant had at his or her disposal to use as an advantage over his or her peers (i.e. personal background). Indeed Young's equation was set in a fictional society where children were placed outside of their parents' influence to avoid any family influence on their school achievement. Tenret's work drew on the situation in French society, which meant the setting resembled to the Japanese case inasmuch as children in both societies are subject to their parent's influence. Considering these various advantages originating in one's personal background, in the newly apparent "*kakusashakai*" (class society), effort has subsequently come to carry far less importance. Personal background is therefore presently considered to be a crucial advantage to succeed in the educational system. As some test takers from various social classes may have more support than others, this support can take a variety of forms: financial, cultural, logistic, intellectual, moral, etc. Echoing Brown's (1990) work,

Mimizuka (2007) even wondered if the importance of personal background qualified Japan as a “parentocracy,” in which parents’ wealth and ambition to promote their offspring have become the decisive factors in attributing one’s place within the social hierarchy.

All in all, the end of economic growth at the beginning of the 1990s heightened the differences between social classes and revealed that the system was not completely impervious to personal background elements. Environmental factors comprise an important element of the equation, but are not the only ones. In addition to these environmental factors (early childhood education and socio-economic status) inborn abilities (such as general intelligence, which Gardner (1983, 1999) particularized as “mathematic-logical intelligence”) is another factor that weakens the ideology of merit as effort. Studies in psychology and psychometrics have shown that individual inborn abilities (i.e. intelligence) vary from one individual to another, often taking the form of a Bell Curve (Herstein & Murray, 1994). It has also been shown that environmental factors affect intelligence, resulting in more favorable conditions for children in the higher social classes (Bouchard & Segal, 1985; Vandenberg & Vogler, 1985).

It is true that standardized tests consisting in short answers and multiple-choice questions do not leave much opportunity to use some forms of cultural capital that students may have acquired in their families. Consequently, the rhetoric presenting Japan as a giant middle-class society (Chiavacci, 2008; Hashimoto, 2003; Nakane, 1970), which was particularly present in political discourse between 1960 and 1990 (Chiavacci, 2008), ignored, *de facto*, any differences that would come from family backgrounds. As for other individual differences, they would be summarized as a lack of individual effort, on the part of some students, to achieve the envisioned goal.

Figure 3 illustrates the mechanics of J-mode meritocracy. The very basis of it is the shared belief among the population (or “Common Ground of Shared Perceptions”) that all individuals can mobilize effort equally to achieve their goals; the opportunity is given to everybody to progress

through the school system and that Japan is a giant middle-class society. Based on this set of commonly accepted platitudes, “Personal Academic Assets” differentiate students depending on how their mobilized effort in their studies, their high school name value, and their educational prospects, interplay. Li, Lerner and Lerner (2010) present a similar concept, “developmental assets,” referring to the “relational process between the strengths of the adolescent and the positive features of his or her social ecology” (p.802). “Educational Outcomes” result from the student’s personal academic assets compared to the entire Japanese cohort of his or her age and level of study. Within the scope of educational outcomes, there is a necessity to differentiate two forms of academic achievement: “School-based Achievement” and “Shadow-based Achievement.” School-based achievement is essentially measured by school grades while shadow-based achievement encompasses rote learning but also university entrance exam-oriented test-taking skills (measured by mock exam results). Students’ educational outcomes, therefore, affect the choice of targetable universities (or “targetability”) through, mostly, numerical information. “Targetability” refers to the information accumulated by the students to confirm that a university is within their reach. This is where students may have to focus their targeted goal on a higher level (if the student achieves better than what he or she had aimed for) or on a lower level (if the student’s achievement is insufficient for his or her targeted university level). A student’s achievement may also be rather adequate for his or her targeted level and recalculation may not require a change in the university targeted but rather a sustained effort (if the student already works well enough) or a supplementary effort (if the student is close to the targeted university level but still needs to do a bit more work to secure the level required for entrance). Based on the reflection over universities’ degree of targetability, students are subsequently sent back to the interplay of personal academic assets to reevaluate their current situation and decide what course of action they should take to achieve their goal. Ultimately, this entire process may be repeated based on any type of new information entering students’ university entrance strategy.

Takeuchi (1997) pointed out that students' faith in effort remains constant whatever the level in the school hierarchy they are at. This can be explained by the possibility for students to always aim for a slightly higher level than the one they can safely secure. "They are re-fired at a realistic level of educational aspiration" (Takeuchi, 1997), meaning their overestimated expectations are dampened, given their results, but increased towards goals which are challenging at their level. This belief in effort is articulated around the setting of realistic goals, with students' educational aspirations being regularly increased, dampened, and again increased (LeTendre, 1996; Nakamura, 2003; Takeuchi, 1997). In other words, whatever their level in the Japanese school hierarchy, students can earn merit as long as they constantly maintain their efforts towards a realistic goal, which itself, is entirely based on the current set of potential opportunities resulting from their effort mobilization up to the present time.

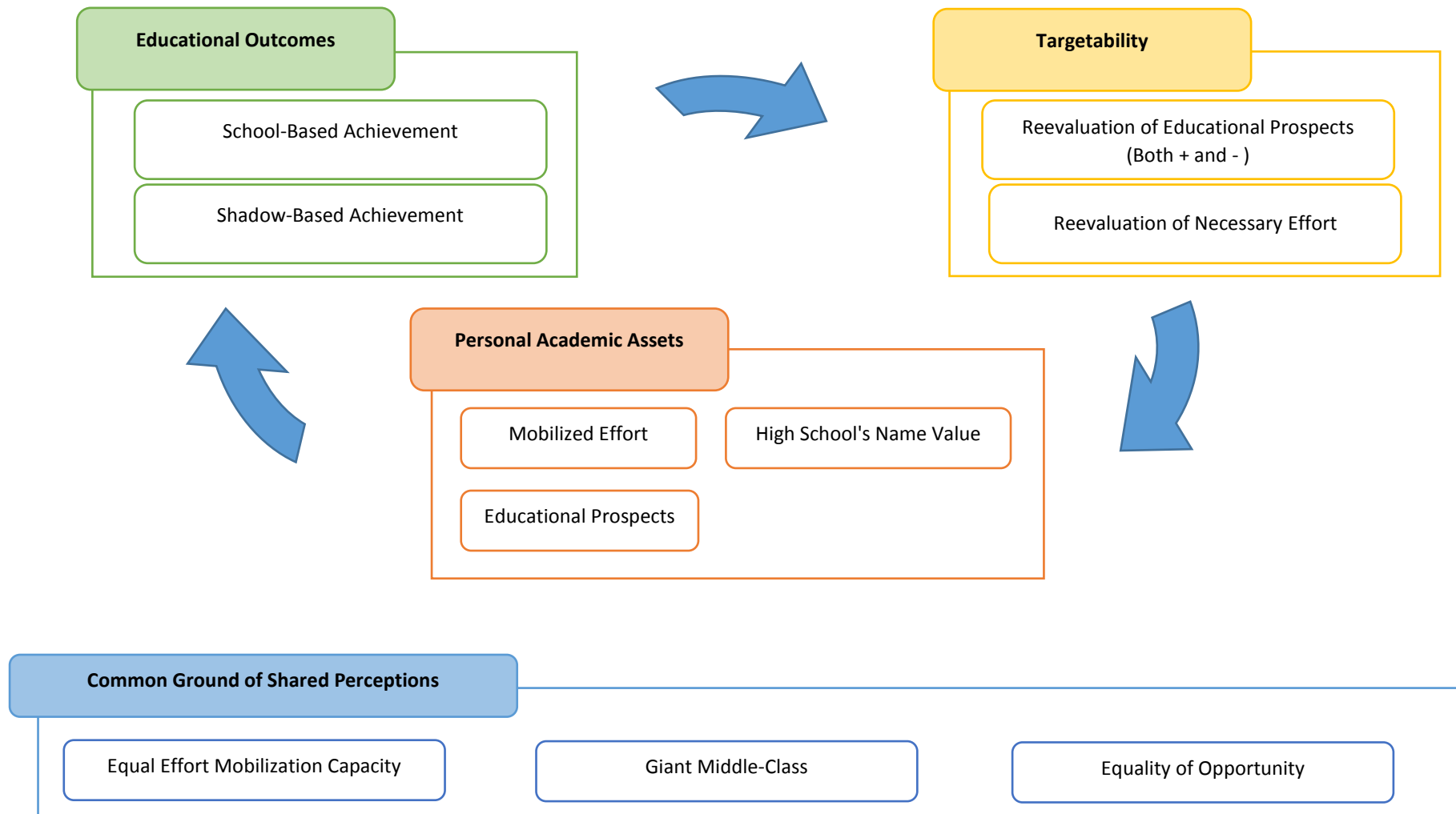


Figure 3. J-Mode Meritocracy Mechanisms. Adapted from Kariya, 2000; Takeuchi, 1997. Source: created by author

This rhetoric, which is applied to the university selection process, is the perfect instrument for selection in standardized exams, as they are based on factual knowledge, using multiple-choice questions, each with one correct answer (Kariya, 2000; Rohlen, 1983; Takeuchi, 1997; Tsurumi, 1998; Yamamoto & Brinton, 2010). This reasoning can also partly be applied to the recommendation system since recommendations are generally provided by high schools on the basis of students' grades (MEXT, 2013a). However, considering the aforementioned differences in environmental factors and inborn abilities, the all-encompassing ideology regarding effort which governs J-mode meritocracy nowadays has suffered a serious setback in its veracity.

b. Diversification and Effort

While the general entrance exam was the only means to have access to university until 1967, the central notion of effort that governed the education system remained almost unquestioned. Previously, with short-answer, multiple-choice question tests, anyone with high school graduation credentials could apply to take the exam. Due to the format of the exam, the corrector's objectivity was guaranteed, and thus equality of assessment was too. Those who passed the university entrance exam were the winners of this long race for whom preparation had started typically two or more years prior. However, the actual means of assessment that have been introduced throughout the last 50 years, such as the recommendation system and other "special" documentary, and interview-based means, call for different types of abilities and resources (including cultural capital), involve the examiner's judgment, and certainly do not use the same evaluation method equally for all applicants.

It is thus now important to turn towards a phenomenon that questions the ideology of merit as effort: the diversification of university entrance selection procedures. Indeed the rhetoric on effort is barely applicable when considering the more individualized forms of exams such as AO or special admissions procedures. These exams are based on criteria which are primarily less

school-related and more personal experience-related (MEXT, 2013a). This leads to the question of whether there is an adequately strong predictive relationship between criteria used for university recruitment and the academic world itself: merit can have an infinite number of forms, though it is linked with a specific case in the present paper: the university entrance exam. Again, the requirements for applying to universities through these types of exams are primarily not related to the school the prospective student went to or any of his or her academic achievements but more to the cultural capital the student might possess. In other words, if some universities require grade reports for the application file, these grade reports are not to be considered as core elements in these selection procedures. The AO is very specific to the university a student applies to, and its means of assessment are thus very diverse: documentary screening, academic-achievement test, performances, interviews, short essay, presentation, group discussions, and oral exams, among others (MEXT, 2013a). Therefore cultural capital can be particularly useful in such types of entrance procedure considering things such as extracurricular activities and trips abroad the student can make use of to flesh out his or her application process. It is typically these types of experiences that can help the student to develop individual characteristics and bring diversity to the school.

Special admissions procedures are based on a specific characteristic of the student applying, with returnee and career-holding students making up the major groups among the special admissions categories (MEXT, 2013a). These two latter procedures are similar in that they do not primarily use academic achievement (grade reports, tests or recommendations from the high school) as an indicator of the student's merit but rather look at various forms of capital and particularly cultural (Bourdieu, 1973, 1986). However, the difficulty of the task is to measure it, which implies relying on the evaluator's subjectivity much more than written tests do.

It is however nothing new: Nakamura (1996), on the history of the recommendation system mentions the harsh criticisms made by the public when the MEXT announced its introduction. It was seen as the easy way in, since all applicants were no longer judged on the

same basis to gain access to university. This was especially true regarding the painful cramming part of exam preparation – a common aspect recommendation procedures have with other, less standardized types of exam. In other words, the nature of the required effort was changing; rather than being evaluated on one exam on one day, evaluation was now to be carried out within the applicant's schooling throughout high school *for some applicants*. Furthermore, this form of exam divided the tasks of evaluation between the targeted university and the home high school. Indeed, despite the fact that the final decision was made by the targeted university, the applicant's grades now came from tests which were designed, administered and corrected by high school personnel. Nonetheless, why would the MEXT suggest that universities introduce subjective means of assessment, contradicting the discourse on effort (where effort means cramming and is measured by objective tests), if they didn't consider it suited to get access to university?

Until recently, an answer was found in the fact that these exams were used by low-ranked universities to help them face the critical situation brought on by their finances, owing to the nation's low birthrate. As a huge portion of university funding (and particularly in the case of private institutions) is obtained through tuition fees, a reduced number of applicants represents a loss of income. Therefore, rather than lowering the standards for their general entrance exam (which would be accompanied by a lower selectivity score for the university – measured by *hensachi*), the idea of opening up places by using diversified entrance procedures offered an incentive to students who were not good test-takers. In addition a disadvantageous drop in enrolment for the university was avoided within the nation-wide selectivity hierarchy, which was based solely on the general admissions exam, even while a growing margin of applicants were admitted through other means. On the MEXT side, the introduction of AO procedures was justified by the will to give universities a selection instrument that could evaluate students' motivation in a comprehensive way (MEXT, 1997; Natsume, 2003). At the same time, the low birthrate affected the entire hierarchy. Students try for a higher level university knowing that the

competition is less fierce than that which their parents might have faced. This has resulted in a severe cut in the applicant pool at middle- and lower-rank universities. But considering that elite private universities now use these selection procedures, the assertion that offering diversified exams is the characteristic of lower ranked universities has become dubious.

c. Diversification and Merit

Diversification can be seen as a decoy, only to help universities save their fiscal balance which has been heavily damaged by the low birthrate (through tuition loss; Aspinall, 2005; Goodman, 2005). Indeed, a recruitment strategy universities use is to set up exams where merit definition can take a variety of forms, and therefore reach pools of applicants whose profiles make it possible for them to use special admissions procedures, AO or even the recommendation procedures. However, diversification may also stem from universities' true desire to change the unique model of the good student as being the best crammer (Aspinall, 2005). In any case, there is a need to evaluate what the various entrance exams are about. The implementation of various processes of assessment implies something about a university's orientation, particularly when focusing on which categories of students are targeted by exam diversification and what proportion of the candidate pool is recruited with each respective entrance procedure. A university establishes its image and reputation by implementing avant-garde entrance exams which do not follow the traditional cramming process. In addition, this process is even more delicate with elite universities, as their selection process is meant to screen the most meriting students, with merit being essential in the majority's (or group in power's) definition. Indeed these elite universities educate the nation's best – those who will most likely be found in leading companies or at high levels of the national bureaucracy. It is very likely that entrance exams reflect a part of a university's culture and this would seem to be particularly the case with customized means of assessment which provide much more liberty in the design of the exam.

As previously explained, Japan is seen as an “education-based meritocracy” (Goldthorpe, 2003; Tenret, 2011). School is thus the sorting mechanism and, by virtue of its very nature, its selection processes are expected to be both merit-based and academic. It is important to underscore that from the start, the institutions’ nature and the tools they design for their selection are theoretically in line with each other. However, customized forms of exams such as AO procedures introduce a dimension that allows institutions not to follow a strictly academics-based concept, while respecting the meritocratic concept. This goes back to the nature of merit as something found in many aspects of the applicants’ profile of personal assets, all of which are essentially seen as “good” (Liu, 2011). As the founder of the concept of meritocracy, Young (1958) defined merit as Intelligence + Effort. However, as Tenret (2011) pointed out, nowhere did Young mention that merit was to be something academic in nature. In a sense, the notion that a school’s diploma and the credentials it bestows serve as indicators of an individual’s merit for the labor market has brought about the common understanding that merit was necessarily academic was derived from Young’s primary definition of merit (Tenret, 2011). Customized forms of exams (AO in particular) go back to this definition of merit, where merit can be pluralized much more readily than with the education-based version of merit (academic merit does possess a variety of aspects but AO goes beyond the traditional facets of academic merit). Liu (2011) preferred the word “talent” or “ability” to “intelligence,” finding this latter term too restrictive. A different approach to this relationship was taken up by Honda (2005) when she described AO procedures as being a reinforcement of the meritocratic model which leans towards what she called “hyper-meritocracy” (Honda, 2005). In her analysis, “post-modern skills,” like individuality and diversity, also enter the meritocratic process when it comes to evaluating a university applicant (Nakamura, 2012), resulting in a more comprehensive approach, as introduced by the MEXT.

VI. Conclusion

University entrance in Japan has diversified throughout the past 70 years, from a single standardized written test administered at each institution, the general entrance exam, to a variety of entrance procedures which screen for different skills in the applicants. The general entrance exam has become the founding pillar of what Kariya labelled “J-Mode Meritocracy” (Kariya, 2000). Subsequently, diversified entrance procedures have been introduced at key points within recent Japanese higher education history, often in response to demographic and ideological issues. Through this diversification, the nature of merit within J-mode meritocracy has been altered and pluralized.

These different forms of exams call for a variety of assessment tools, which are themselves sometimes subject to dubious recognition among the public. This chapter aims at explaining the relationship between Japanese society and its concept of merit. Traditional views on merit in Japan equate it with effort (J-mode meritocracy): success on the entrance exam is to be the measure of effort put in one’s preparation and nothing else. At the same time, J-mode meritocracy exists thanks to three widely held beliefs in Japanese society: equality in the opportunity to enter and progress through the educational system; the giant middle-class society; and equality in effort mobilization capacity. This system is nested within a hierarchy of universities in Japan, which is built on measures of universities general entrance exam’s difficulty and success in attracting the higher achievers. However, the diversification of university entrance procedures has disrupted the foundations of this order as the measure of merit is no longer effort alone.

Furthermore the various entrance procedures, which were designed to be valid selection procedures in a meritocratic system, have been introduced primarily because policy makers and practitioners designed them and recognized them as valid tools to select meriting students. Therefore, the diverse entrance procedures that exist have been designed to reflect different kinds of abilities which are valued by society – or at least by its influential parties (Kennedy & Power, 2010; Yoneyama, 1999). Therefore official discourses on the diversification of university

entrance procedures will not teach us more than what is already known: the debates on objectivity versus subjectivity when assessing candidates' merit. Moreover, policy makers and admission personnel alike have probably never experienced nor prepared for the more customized forms of examinations. As Okano and Tsuchiya remarks (1999), students are often left aside as uninformed about the stakes of the system and defined as passive consumers of this very system. However, they are at the center of a number of discourses (e.g. parental and school), and the perceptions of merit shaped in their minds are fostered by different factors. As they will become productive citizens one day, and given how important the university entrance exam system is in the collective imagination, the way they are selected today will very likely affect their perception of what merit should be in the future. It is precisely because the introduction of more customized and deliberately subjective means of assessment have continued over the last fifteen years, despite the debates over them, that students have become central in understanding the public's perceptions of merit, the reception of the discourses about it and potential future evolutions of such concept.

The question remains, however, what perceptions do students have on merit in a diversified entrance exam system? How do they perceive diversified entrance procedures? Moreover, what shapes high school students' perceptions of university entrance exams as selection processes which are more or less designed on a merit-based selection principle? To address these questions, it was necessary to gather data on student perceptions of exams – defined as instruments to measure merit (or not). Using this inquiry as its basis, a survey was designed, as Chapter 3 describes.

Chapter 3: Research Design

This chapter presents the design of the research. It includes the conceptual framework, a description of the central concepts of the study, and the hypotheses related to their interaction.

I. Conceptual Model

This study explores how students' perceptions of various aspects of merit are impacted by traditional sociological and psychological factors. More precisely, the goal of this study is to understand how students perceive the various aspects of merit rewarded by the diversified entrance exams and what motivates these perceptions.

Twelfth graders who were in the process of pursuing study preparation for university and thinking about the options they had at their disposal, were identified as the best target among the high school student population. The sample was restricted to Tokyo to avoid geographic disparities for internal coherence. Tokyo has a concentration of high schools of diverse ranks and natures – including some attached to larger educational complexes – and is arguably the area that is the most affected by the diversification of university entrance procedures. Public schools were excluded since private schools' structure and organization, among other aspects, offer many more options to their graduates who are preparing to enter university²⁰. It is also important to mention that private universities are more open to a variety of assessment tools for the selection of their applicants and have exclusive links with private high schools. Thus, a broader range of answers

²⁰ Public schools' access also presented more difficulties and presented a challenge in terms of feasibility for the study.

was expected from private high schools as their students often have more options at their disposal to enter university. The population was also restricted to high schools whose *hensachi* score ranges between 40 and 70. Indeed, most high school students who achieve under 40 do not target entrance to university and the above 70 students are often only left with general entrance exam to proceed to a university of their level. In both cases students are likely to not be affected much by the diversification of university entrance procedures and therefore do not constitute a relevant population for the purpose of this study.

This population, therefore, represents a number of students who have access to more options to go to university than do students from the same cohort. Therefore, by restricting the sample to Tokyo and private schools, a specifically informed and advantaged (in terms of access to university) population was studied. This restriction introduces biases that define the generalizability of the findings to this specific population. Nevertheless, this restricted population provides a variety of interesting results regarding access to diversified entrance exams. This study therefore constitutes a good basis for future research (see Chapter 7: Discussion). Figure 4 is a representation of the approach taken for examining 12th graders' current perceptions of merit as measured by the various entrance exams.

To operationalize the measurement of merit, the concept was divided into four constituent elements: Challenge, Appropriate Measurement, Ensured Equality of Treatment, and Usefulness of the Knowledge acquired for the exam preparation (section II of this chapter). This model assumes that variables originating from the given student's environment as well as from his or her own personal involvement in his or her pursuit of studies towards university are expected to affect views on the meritocratic nature of the various entrance exams (section III of this chapter). Control variables are also included in this model. Hypotheses (section IV of this chapter) 1, 2 and 3 relate to students' environment and hypotheses 4, 5, 6 relate to personal involvement. These relationships are analyzed using ordinal logistic regression analysis, one for

each constituent element of merit and entrance exam, reaching a total of 24 ordinal logistic regressions (four elements of merit for six different forms of exams).

Based on the findings of these regressions, and in order to understand the students' experience in terms of planning, choosing and applying to university, comment analysis was conducted. Subsequently qualitative findings from a series of focused-group interviews and field notes are presented to provide meaningful interpretation of the questionnaire's findings. Lastly, through a comprehensive analysis of results obtained through OLR and qualitative analysis of comments, focus-group and field notes data, an updated account of student perceptions of merit and meritocracy in Japan is provided.

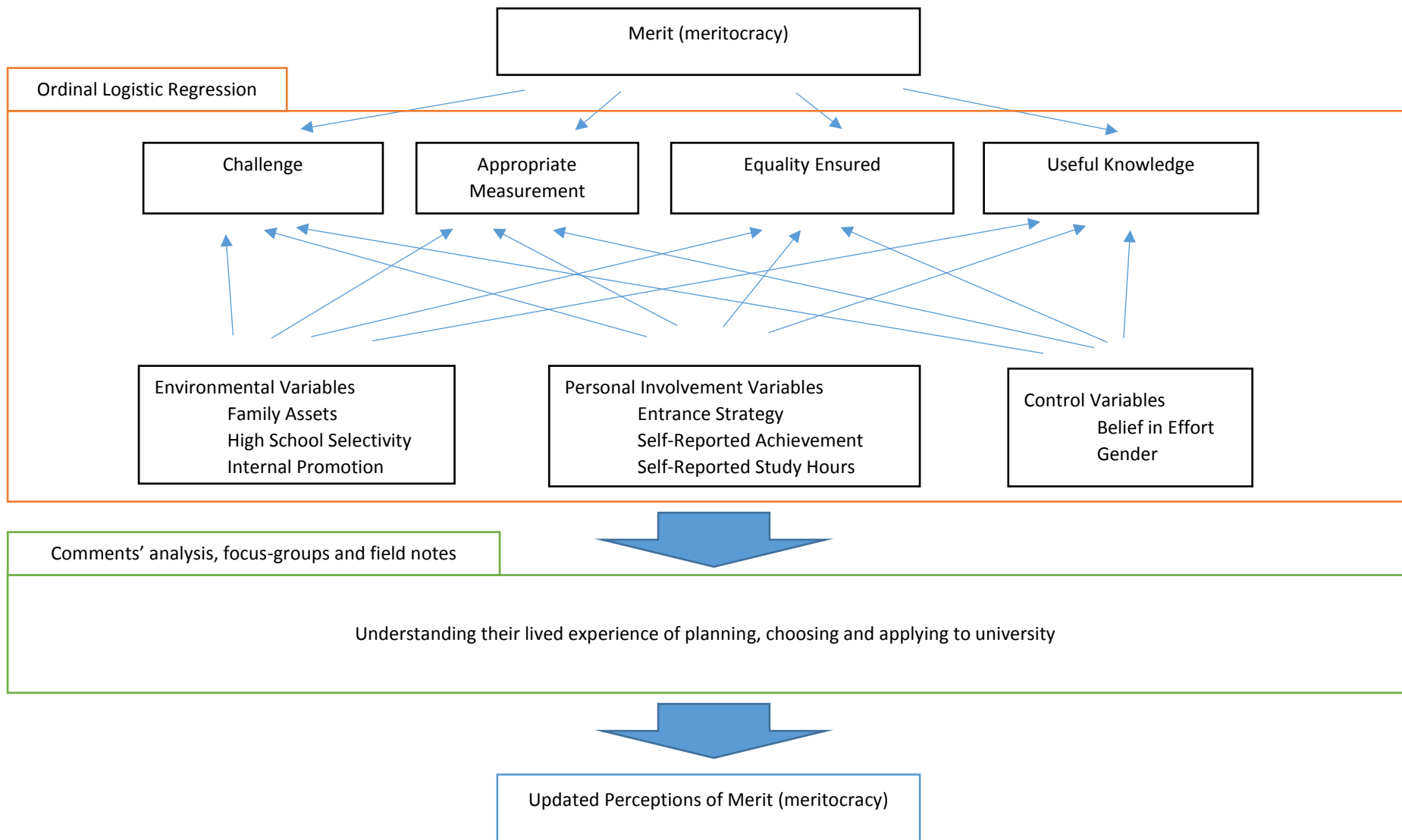


Figure 4. Conceptual Model. Source: created by author.

II. Constituent Elements of Merit in Students' Perceptions

The literature review has illustrated that merit is a multifaceted concept. As merit seems to be traditionally rooted in effort and measured by standardized written tests in the Japanese case, I divided the concept of merit, which has traditionally underpinned the legitimacy of standardized written tests, into four constituent elements, namely: the challenge offered by the exam, the appropriateness of the exam to measure individual abilities, the equality guaranteed by the exam, and the usefulness of the knowledge acquired through exam preparation. These elements will serve as dependent variables in the present analysis.

A. Merit as Challenge

In "J-mode meritocracy," described by Kariya (2000) as the pervasive cultural interpretation of meritocracy within Japanese society, "effort" is a central concept (Singleton, 1995; Yoneyama, 1999). It materializes in the case of the written tests, through long periods of cramming encyclopedia type of knowledge to be tested (Kariya, 2010). As regards a more general definition of effort, the time and energy spent in the process of mastering a task are the constituent parts of effort (Carbonaro, 2005). Furthermore, it is fundamental to know whether the newer customized forms of exams are perceived as challenging as the more standardized forms since they require different skills and different types of effort. In a sense, if they are not seen as requiring effort, they may barely be recognized as legitimate exams through which one can earn merit. This either brings us back to the definition of meritocracy in the Japanese case or points to a potential contradiction between the discourse on merit and its internalization by social actors, the latter of which is likely to be characterized by a pragmatic lack of concern. This lack of concern happens if social actors do not identify an entrance exam as a potential choice – either because they do not fulfill the application requirements or because the exam is not offered at their targeted university or faculty.

B. Merit as an Appropriate Measurement of Individual Abilities

“Appropriate Measurement” (or Appropriateness) is a legitimizing component of merit, with legitimacy being defined by Tyler (2006) as “the belief that authorities, institutions, and social arrangements are appropriate, proper, and just.” Tyler adds that, “Irrespective of whether the focus is on an individual authority or an institution, legitimacy is a property that, when it is possessed, leads people to defer voluntarily to decisions, rules, and social arrangements” (Tyler, 2006). The appropriate measurement of individual abilities is an aspect of legitimacy which considers the recognition of the exam by the social actors as being an acceptable selection procedure (as measuring individual abilities) granting entrance to university. It therefore forms a basis for applicants’ points of view on the various forms of exams as being valid (or invalid) gateways into university. It encompasses social actors’ views on the match between the exam itself and the institution (i.e. university) for which that exam has been designed as an entrance procedure.

C. Merit as Equality

The equality aspect of the exam considers the question of whether applicants believe that each type of exam guarantees equal treatment for all the applicants without any consideration of their individual background. It encompasses the perceived objectivity of treatment which includes the perceived equality of opportunity given to applicants to opt for a particular form of exam. This refers back to the concept of equality of opportunity which has been long defended by the Japanese Ministry of Education (Okada, 1999), even though the diversification of entrance exams clearly suggests weariness as regards this aspect. Merit as equality is also a central aspect of “J-Mode” meritocracy as it supports the belief that admission to university is the result of effort and no other factor (inborn abilities, family background or early childhood education) in an equality-

centered concept of merit. Applicants are thus all equal when facing entrance to university and the exam itself guarantees this equality aspect.

D. Merit as Useful Knowledge

School is at the heart of the education-based meritocracy and fills a variety of roles to ensure that society functions properly. The four roles identified by Okano & Tsuchiya (1998) comprise selection and differentiation, socialization and acculturation, transmission of knowledge and, legitimization of knowledge. The third aspect is relevant in particular for this concept of useful knowledge as it emphasizes that students theoretically learn something on a long-run basis and do not just prepare for the university entrance exams, which are epitomes of education-based meritocracy's sorting mechanism.

The knowledge applicants acquire during their years of exam preparation consolidates all the information that the applicants have learned during their exam preparation time (in terms of content and methodology – test-taking skills, efficient working skills, hidden curriculum, etc.). This implies that throughout the preparation for the exam applicants have acquired exam content related knowledge but have also mastered study methods and exam taking skills. Kariya (2010) posits that the written tests force students into a high degree of commitment to their studies, “in order to secure educational credentials and eventual occupational advantage” (Kariya, 2010). This commitment is important since Japan has been known as *gakkourekishakai* (Amano, 1999) – “school branding society” – with company employers tending to focus on the name of the university a prospective hire has attended when making decisions about their recruitment (Cummings, 1980). During this process, companies demonstrate a belief that the degree of difficulty of the exam the entrant passed is a good indicator of his or her commitment to work once recruited. However, viewed at the student level, it questions the usefulness of the knowledge acquired and its perceived viability after the university entrance exam has been taken

(and passed). It is unknown whether students are more concerned with selection or knowledge transmission, which is a dichotomy that has been at the heart of educational philosophy debates (Hadji, 2012).

From a theoretical perspective, school, based on education-based meritocracy mechanisms, is a legitimate entity to identify students' merit. Following Goldthorpe (2003)'s framework, authority has been given to schools to recognize merit for society at large. It is thus the agent that is responsible for merit recognition within the education-based meritocracy.

Parallel to this, among the four roles of schools identified by Okano and Tsuchiya (1998), the school transmits useful knowledge. It indeed has a role in preparing youth for their future lives as productive members of society. This knowledge and its acquisition are to become the basis for the development of more specialized skills and social life in adulthood.

The content of entrance exams to university is directly connected to this aspect: more standardized forms of exams rely on a school's curriculum, which is decided at the national level while more customized forms of exams use guidelines from the MEXT, specifically mentioning developmental objectives such as individuality or motivation. The screening of such content is to also be of direct use to know whether applicants are prepared for being taught at the tertiary level or not.

In regards of these theoretical elements, usefulness of knowledge cannot be discarded in understanding merit. What is learned at school and during the entrance exam preparation process is to be used in adult life. This is all the more the case with more customized forms of exams like the AO, as merit definition is rooted in its contemporary context (Liu, 2011). The pilot study demonstrated students were not passive when being questioned about their university entrance exam preparation. A number of them did report that knowledge taught at school was not only the means for social selection, but a real necessity for their own development as well. As this aspect of merit within the context of university entrance examination has not been

investigated, and as education, from preschool to the tertiary level, prepares (and not only select) students to be productive and responsible citizens, it is important to include it as a constituting element of merit.

III. Breakdown of Explanatory Factors

To investigate the question of how perceptions of the various entrance exams differ between students, environmental factors (economic capital, school selectivity and availability of internal recommendation option) and personal involvement factors (individual entrance strategy, study hours and achievement) were examined and two other potentially explanatory factors were controlled for: the respondent's belief in effort ideology and the respondent's gender. These elements will serve as my independent variables.

The overarching principle that governs the use of all the following variables is the neo-institutionalist perspective, which has its roots in Weberian sociology, where institutions determine values, rationales and options of social actors (LeTendre, 1996). It is reinforced by elements of interactionist theory and, in particular, the belief in social actors' ability to reflect on these values, rationales and options and make their own decisions in order to maximize the profit they can gain from the education system (Okano & Tsuchiya, 1999). As Amano (1999) cornered it, Japan is a *gakkourekishakai*, implying that social actors are motivated by the desire to access the best university possible to maximize one's life chances on the labor market (Borovoy, 2010; Cummings, 1980). Social actors consequently balance aspirations for getting into the best university possible with their chances of succeeding in the exam given for admission to such universities, drawing on their own personal background and the options the university provides.

A. Environmental Variables

i. Family Assets (Proxy for Economic Capital)

High economic capital implies that families are able to channel a greater amount of resources into their child's schooling to increase his or her chances to enter a better university (Mimizuka, 2007). It is visible in a variety of forms, including, among others, being able to spend more money on various entrance exam fees or accessing more shadow education. As Takeuchi (1997) demonstrated through the "heating up/ cooling down" process, students are encouraged to systematically target the best university within the range of options that are open to them. But the ability to pay for different entrance exam fees offers a safety net when betting on entrance exams with unattainably high levels of challenge, which encourages second or third choice options. Furthermore, of all the ways to increase their chances to be accepted to the university of their choice, people spend the most on shadow education (Baker & LeTendre, 2005; Mizuzuka, 2007). Lastly, Shirahase (2010) explained that highly educated parents tended to spend more money on their children's schooling, thus increasing their chances of success to enter better universities. High economic capital, enjoyed particularly by most elite families, is therefore likely to open up more options for their children in a variety of forms (e.g. shadow education, ability to pay for multiple entrance exam fees, extracurricular activities).

ii. School Selectivity

Aramaki (2002) pointed out the importance of the school's place in the academic rankings, as an important factor which affects students' attitudes towards learning²¹. Carbonaro (2005) also mentioned the importance of the ranking structure in determining students' achievement. LeTendre (1996) posited that institutions were central in determining social actors' rationales, values and options. Since elite universities still largely recruit based on the general entrance exam,

²¹Also found in Gladwell (2013), though in a broader general context.

it is likely that the higher the *hensachi* of the school, the less customized forms of exams are seen as merit-based as they tend to be restricted options for university access²².

iii. Availability of the Internal Recommendation Procedure Option

High schools offering an internal recommendation procedure option have a main selling point which is their link with the university within the same educational complex upon which they depend for semi-automatic promotion. These schools might therefore follow another pattern in students' merit perceptions of such procedures. In such high schools, this internal recommendation procedure might be seen as following a normal, merit-based selection process to a greater extent than in high schools that do not offer such an option. The high school discourse very likely avoids discrediting the paths offered within their own educational complex, particularly when teachers are involved in the process of selecting and delivering a recommendation or deciding not to do so. In this light, students who are exposed to such discourse are more likely than their peers to be receptive to the argument that internal recommendation procedures are merit-based selection instruments.

B. Personal Involvement Variables

i. Individual Entrance Strategy

As mentioned in the literature review section, university entrance exams have generated a lot of interest and criticism. It is thus fair to say that each exam has its positive and negative aspects. However, students have to make a choice about which way they will attempt to enter university, whatever the criticisms on their chosen avenue are. The entrance strategy finds its

²²As a reference, Tokyo University recruited 3,063 students through the General Entrance Exam in AY 2011 and only a few (number not indicated) through Special admissions (Tokyo University booklet 2012). For the same year, Hitotsubashi University recruited 968 students through the General Entrance Exam and 2 through Recommendation (Official website)

justification in the importance of maintaining self-integrity. Tesser (2001) argues that self-integrity refers to:

“holding self-conceptions and images that one is adaptively and morally adequate, that is competent, good, coherent, unitary, stable, and capable of free choice, capable of controlling important outcomes and so on (Steele, 1988, p.262).”

This aspect therefore encompasses individuals’ choices and their justification, as well as their desire to avoid inconsistency, which would threaten their self-esteem. According to this theory, I might expect that students could be biased toward seeing their own targeted entrance exams as being based on a merit-based selection principle. This assumption was corroborated during the pilot survey phase in the case of the recommendation procedures (see Appendix 2, p.170).

ii. *Effort in Studies (Study Hours) and Achievement*

Carbonaro (2005) defined effort as “the amount of time and energy that students expend on meeting the formal academic requirements established by their teacher and/or school.” He also posited that effort was “*positively related*” to academic achievement. In contrast, Barrère (2001) presented a typology of input (effort) and output (achievement) which resulted in the definition of archetypic profiles such as “*forçat*” (“galley slave”) where sustained effort and failure in academic achievement are brought together. It is therefore important to not equate effort with achievement though once again, “*effort is positively related to achievement*” (Carbonaro, 2005). Putting forth effort is an intrinsically goal-oriented activity: students who put forth effort in their schooling expect to achieve more than if they were not working at all. Thus, when considering the nature of the design of standardized written tests (written tests requiring encyclopedia knowledge learned through long hours of cramming), it is expected that more standardized exams would be regarded as merit-based by students who devote effort in their schooling.

C. Control Variables

i. Belief in Effort Ideology

Given Kariya's analysis in which effort equals merit in J-Mode meritocracy, I held constant respondents' adherence to this belief and examined how it was linked with the perception of university entrance procedures as accurate measures of merit. The effort belief variable was added to investigate how respondents connected the usual discourse on merit with their views of existing university entrance procedures. It also questions whether the meaning of effort can be pluralized in their perceptions or if it remains limited to a specific definition which is measured by more standardized forms of exams. Respondents were proposed a five-point Likert scale to measure their degree of support for the statement "If one puts forth the necessary effort, one will necessary reach one's goal."

ii. Respondent's Gender²³

Ohsaku & Nanbu (2005) found that even though it was not a consistent result, girls tended to outperform boys in AO procedures. The authors implied a generally better performance of girls in sociability, presentation skills and enthusiasm. Another aspect that brought me to include gender as a control variable came from informal discussions with teachers who mentioned girls preferred to avoid risk. This inclination for risk avoidance was reflected in particular the question of the time of the results and girls' tendency to prefer receiving their exam results early, pushing them towards more customized forms of exams.

²³ The gender of the respondent was added to gather further information in an updated version of merit and meritocracy but remain peripheral to this study as the approach taken in this dissertation is primarily a Weberian one on how the whole student body approaches merit.

IV. Hypotheses

In order to investigate the question of what shapes high school students' perceptions of university entrance exams as selection processes more or less based (or not based) on a merit-based selection principle, I presented my four dependent variables and eight independent variables. Below is a summary of the relationships I expect to find among them:

H1) The higher one's economic capital (family assets), the more likely the respondent is to perceive the selection principle of uniqueness-oriented forms of exams as being driven by four constituent elements of merit: challenge, appropriateness, equality and usefulness.

H2) The higher their high school position in the educational hierarchy, the less likely the students from these schools are to perceive the selection principle of uniqueness-oriented forms of exams as being driven by four constituent elements of merit: challenge, appropriateness, equality and usefulness.

H3) Respondents from schools having an internal promotion system are more likely to perceive the selection operated by the internal recommendation procedures as being driven by four constituent elements of merit: challenge, appropriateness, equality and usefulness.

H4) Respondents are more likely to perceive the selection processes based on personally targeted forms of exams as driven by four constituent elements of merit: challenge, appropriateness, equality and usefulness, than those who do not target these forms of exams.

H5) The higher one's effort (study hours), the less likely the respondent is to perceive the selection principle of uniqueness-oriented forms of exams as being driven by four constituent elements of merit: challenge, appropriateness, equality and usefulness.

H6) The higher one's achievement, the less likely the respondent is to perceive the selection principle of uniqueness-oriented forms of exams as being driven by four constituent elements of merit: challenge, appropriateness, equality and usefulness.

Table 2 sums up the correspondences between variable types, variables and hypothesis. Environmental variables consist in three variables: Economic capital (using family assets as a proxy), high school selectivity and presence (or absence) of internal promotion option. They respectively address Hypothesis 1, 2 and 3. Personal involvement variables consist in three as well: entrance strategy, self-reported study hours and self-reported achievement. They respectively address Hypothesis 4, 5 and 6. Control variables include the respondent's gender and his or her belief in effort ideology. No hypothesis was considered for these variables but they were nonetheless controlled.

Table 2. Variable Types, Variables and Corresponding Hypothesis

Variable type	Variable	Hypothesis
Environmental	Family assets (proxy for economic capital)	1
	High school selectivity	2
	Internal promotion option	3
Personal Involvement	Entrance strategy	4
	Self-reported study hours	5
	Achievement	6
Control	Belief in effort ideology	None
	Respondent's gender	None

Note. Source: created by author.

Chapter 4: Methodology

This chapter focuses on the present study's methodological issues. Sample selection and sampling methods are detailed, as well as the operationalization of the concepts described in the previous chapter. The chapter concludes with the analytic framework.

I. Dataset and Sample

In this section data selection and sampling methods are presented. A description of several issues that were faced during the data selection process is also provided.

A. Data Selection

The sample for this study was selected using a stratified-cluster sampling strategy (Cohen, Manion and Morrison, 2007; Gall, Gall and Borg, 2003; Wiersma & Jurs, 2009). This approach combines elements of stratified sampling (the sample is divided into strata and organized ordinally, based on the researcher's classification) and cluster sampling strategies (data are collected from groups pertaining to clusters). It is based on the division of the total population into strata first (using school average *hensachi* scores as described in Obunsha, 2014) and the use of clusters (in the present case, private high schools located in Tokyo within each respective *hensachi* stratum). More specifically, I used the school average *hensachi* to create three different strata, ranging from a *hensachi* of 40 to 50, 51 to 60 and 61 to 70 (Table 3). In order to better represent the data, I used sub-strata (three for each stratum) based on the high school's nature (male, female or co-ed), in addition to the 3 strata resulting from the stratified sampling

strategy (Figure 5)²⁴. For the purpose of the present study, attention was given to 12th graders, both male and female, attending private daytime high schools in Tokyo whose *hensachi* (often translated “Z-scores”) are between 40 and 70.

Table 3. Sample Selection

Strata	<i>Hensachi</i> scale	Percentiles
- 1 st stratum (top tier)	- 70 to 61	- 2.2 to 13.5
- 2 nd stratum (middle tier)	- 60 to 51	- 15.8 to 46
- 3 rd stratum (lower tier)	- 50 to 40	- 50 to 84.2
Sub-strata	High school’s student gender (male, female, co-ed)	
Cluster	Private high schools	
Respondents	12 th graders	

Note. Source: created by author.

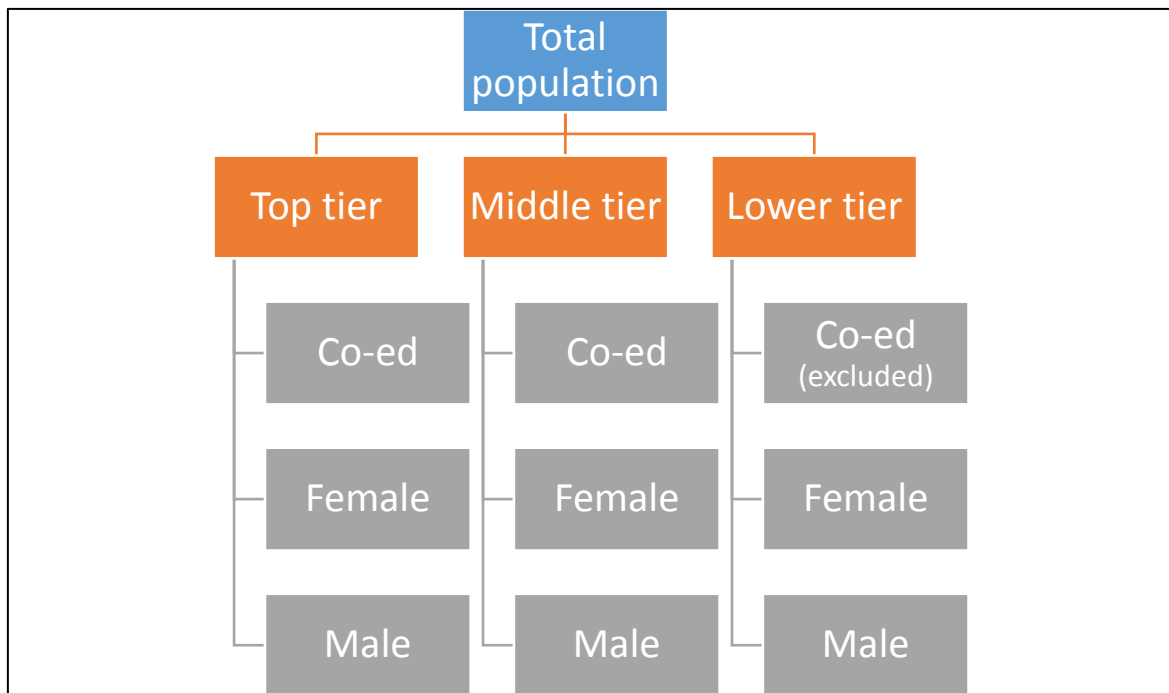


Figure 5. Stratified-cluster Sample Composition. Source: created by author.

Based on Obunsha’s data relative to high school graduates’ choices to pursue or not university entrance, as well as which universities they chose to pursue, the *hensachi* range choice was also defined. It excluded students who attended considerably low-level high schools and who

²⁴ Lower tier co-ed high schools were ultimately excluded from the sample as discussed below.

were consequently not concerned by going to university, as well as those from substantially high level high schools who were targeting universities where diversification of entrance procedures is almost non-existent. Evening high schools were also removed from the sample since their structure (up to four years) and objectives do not match those of day high schools. Based on Obunsha's data (2014), the total population of students attending private day high schools in Tokyo was calculated at 45,243.

Table 4. Standard Distribution of *Hensachi* (Z-scores) on Mock High School Written Entrance Examinations and Corresponding Percentages of Admissions Success

Z-score	Percentage Scoring above	Z-score	Percentage Scoring above
75	0.6	49	54
74	0.8	48	58
73	1	47	61.8
72	1.3	46	65.6
71	1.7	45	69.2
70	2.2	44	72.6
69	2.8	43	75.9
68	3.5	42	78.9
67	4.4	41	81.6
66	5.4	40	84.2
65	6.6	39	86.5
64	8	38	88.8
63	9.6	37	90.4
62	11.2	36	92
61	13.5	35	93.4
60	15.8	34	94.6
59	18.4	33	95.6
58	21.1	32	96.5
57	24.1	31	97.2
56	27.4	30	97.8
55	30.8	29	98.3
54	34.4	28	98.7
53	38.2	27	99
52	42	26	99.2
51	46	25	99.4
50	50		

Note. Adapted from *Shingaku kenkyukai* Website.

The *hensachi* (see Table 4) is an indicator of a prospective student's level of achievement in mock-tests modeled after the general entrance exam format. Consequently, it serves as an indicator of a given high school's selectivity. Obunsha (2015) uses the data developed by

Shingakukenkyukai (Society for research on study pursuit), a shadow education establishment, which has created the “*Shinken V Mogi*” (Shinken Mock-test V) as a device to calculate students’ *hensachi*. This test is given at regular intervals throughout the year, based on the prefectural location of the targeted high school – Tokyo, Chiba, etc. – and the type of high school – public or private. Students can take the *Shinken V mogi* test at least once a month. Thus, *hensachi* was chosen as an appropriate data selection criterion. *Hensachi* scores usually range from 25 to 75. The higher the score, the more proficient the student is deemed to be in the mock-test tasks. It is calculated in the following way:

$$\text{Hensachi} = 50 + \frac{\text{A-San's grade} - \text{Average grade}}{\text{Standard deviation}} \times 10$$

Taking from the 40-70 range, this results in a representative sample of around 762 students, calculated with a sample size calculator (Creative Research Systems, 2013), for a confidence level of 95% (recommended by Cohen et. al., 2007), a confidence interval of 5 and a population of 45,243. This allows me to say that I am sure with 95% confidence that the entire population of 45,243 students would have picked the same answers as my representative sample with a margin of error of 5% in the results. From Creative Research Systems (2013), the formula for Sample Size calculation is the following:

$$SS = \frac{Z^2 * p(1-p)}{c^2} = \frac{1.96^2 * 0.5 * 0.5}{0.05^2}$$

$$SS = 0.9604 / 0.0025 = 384.16$$

Where:

- SS= Sample size
- Z = Z value. The value is 1.96 for a 95% confidence level as defined by the table of the Standard Normal distribution (Argyrous, 2005; Field, 2009)

- p = Worst case scenario percentage (50%) for answers to questions. It is used to maximize the size of the sample. The sample calculator uses 0.5
- c = confidence interval (margin of error). Due to operationalization issues (in particular, the researcher's ability to gather a sufficient amount of data using cluster-sampling methods and subsequent adjustments) five percent was chosen. It is expressed as the decimal (.05 = $\pm 5\%$)

Added to this is the correction for a finite population.

$$\text{New SS} = \frac{\text{SS}}{\left(1 + \frac{\text{SS}-1}{\text{Pop}}\right)} = \frac{384.16}{\left(1 + \frac{(384.16 - 1)}{45243}\right)} = 381$$

- New SS = Sample size needed for representativeness of the sample (381 from a calculation based on the former equation)
- Pop = Population considered (45,243 in this case)

However, as cluster sampling tends to be less precise than random sampling but increases operationalization (Wiersma & Jurs, 2009), as a general rule, the total population calculated for a representative sample is to be multiplied by 2, in order to reduce sampling error. Therefore, a minimum of 762 questionnaires are necessary to ensure the representativeness of the sample.

B. Issues Linked with Data Selection

Private high schools in Tokyo share a variety of characteristics but also exhibit numerous differences, which required certain adjustments when sampling. Below are described two special cases which needed to be excluded in order to obtain an adequately representative sample.

i. *Chuukouikkankou (Combined Junior and Senior High Schools)*

These schools serve a relatively small number of students and recruit almost exclusively for entrance at the junior high school level. Students are admitted at age 12 to study at the same school throughout their 6 years of secondary education (3 years of lower secondary and 3 years of upper secondary). Even though *hensachi* scores exist for the lower secondary level, they could not be considered for sample selection in their raw form. Compared to the senior high school entrance *hensachi* scores, this *hensachi* varies in two important aspects:

- 1) It has a smaller pool of applicants and
- 2) Applicants who take the test tend to achieve at a higher academic level than their peers (they purposely withdraw from the public system in search for a more selective institution)

Nevertheless, as the *hensachi* is based on a normal distribution, as a general rule²⁵, 10 points are added to the junior high school entrance *hensachi* score for reaching an approximate number for senior high school entrance *hensachi* score, as indicated in Figure 6.

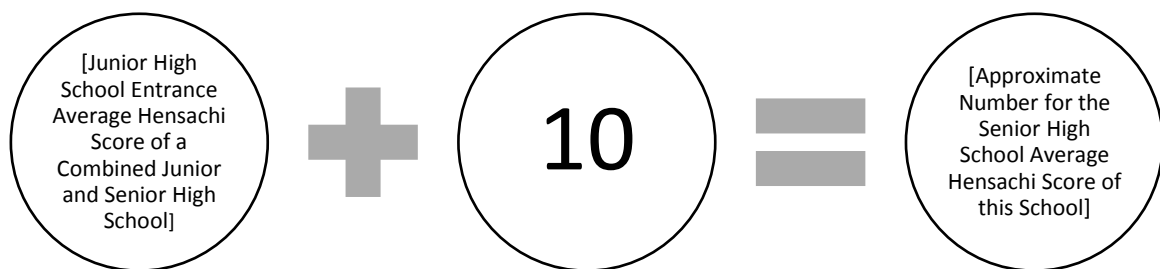


Figure 6. Equivalence between junior high and senior high school average *hensachi* score for combined schools. Source: created by author.

However, as this 10-point addition is only an approximation, another filter was applied by checking the various universities these combined junior and senior high schools send their graduates to. The majority (more than 2/3) of graduates going to the top two ranked private universities (Keio and Waseda) was used as a benchmark. These universities offer various

²⁵ As indicated by websites like Yotsuya Otsuka (2014) or Papa to Mama no benkyoubeya (2015).

entrance exams, and the ultimate goal – to target well-informed respondents – was thus served, as applicants to these universities are affected by the diversification of university entrance exams. This numerically resulted in keeping combined junior and senior high schools with a maximum *hensachi* score 77. After these filters were applied, 35 combined junior and senior high schools were added to the population and one was included in the sample (after random selection).

ii. High Schools Sending Less Than 50% of Their Graduates to University

High schools that send less than 50% of their graduates to university were excluded from the sample, except those whose students generally do one year of preparation for exams (analysis on which high schools were in this situation was conducted on a case-by-case basis; information found in Obunsha, 2015). Apart from students taking another year to prepare for selective universities, high schools sending less than 50% of their graduates to university all had a *hensachi* score under 40. Again, this decision rendered a sample with students who were informed about the diversification of university entrance procedures, who could subsequently make meaningful comments in questionnaires and interviews.

II. Data Collection

This section describes the results of the data collection process. It focuses on the number of participants in both questionnaires and interview phases, as well as on issues faced after the completion of the data collection process.

A. Questionnaires

Questionnaire responses were received from 1,447 students at 13 high schools between September and November, 2014. Table 5 details the number of questionnaires, high school tiers (strata) and high school gender (sub-strata). The questionnaire can be found in Appendix 6 (p.177).

Table 5. Details of the Surveyed High Schools

High School	Number of Questionnaires Retrieved	Response Rate	High School Strata	High School Sub-Strata
High school A	88	88.0	Middle tier	Female
High school B	97	92.38	Middle tier	Co-ed
High school C	72	90.0	Middle tier	Female
High school D	191	95.5	Middle tier	Co-ed
High school E	76	38.0	Middle tier	Male
High school F	171	98.3	Lower tier	Female
High school G	79	98.75	Top tier	Female
High school H	105	97.2	Middle tier	Female
High school I	185	84.0	Lower tier	Male
High school J (excluded)	11	3.87	Lower tier	Co-ed
High school K	18	6.9	Top tier	Male
High school L	139	92.66	Middle tier	Co-ed
High school M	215	93.75	Top tier	Co-ed
Total	1447			

Note. Source: created by author.

Except for High schools E and K, in which questionnaires were given to students and filled out at home, all questionnaires were administered during homeroom time. Hence, response rates for questionnaires were very high generally speaking.

B. Issues Linked with Data Collected from Questionnaires

Even though the return rate was high, data collected from questionnaires presented a few challenges that need to be mentioned. Among them, I encountered the problem of unequal participation in the study from high schools (some high schools administered the questionnaire to only a few students while others accepted to ask all of their students to participate). Thus a first

point to ensure is the weighting of the data so that gathered data findings better reflect reality. A second issue is the treatment of questionnaires that were not considered for the analysis.

i. Weighting

The student number across participating schools was variable. To reflect the reality of Tokyo private high schools' landscapes, as well as to reduce sampling error and avoid sampling bias, weighting data was necessary (See Appendix 3, p. 171, for a detail of weights used and Appendix 4, p.172, for final sample composition in comparison to approached schools). Moreover, two schools provided student numbers far lower than the target number of 100 (11 and 18 students only) per school and four schools provided considerably higher numbers than the target (191, 171, 185 and 215 students). In one case (High School J; N=11) questionnaires were only received from the contact teacher's homeroom students. This led to the removal of these questionnaires from the sample as they bore a substantially greater weight as representative of its category. For the other school (High School K), the questionnaire was not administered during class hours and thus suffered a 6.9% response rate (unlike the case of School E). However, due to the comparatively small number of students in this category (top tier, all-male high school) and resulting weight (3.7), the data were included in the analysis.

ii. Unusable Questionnaires

Around 40 extra questionnaires in total were suppressed from the sample as they often provided extensively inconsistent or partially incomplete information. The questionnaire was considered invalid when clearly inconsistent information was identified or when more than 50% of the whole questionnaire was left unanswered.

C. Interviews and Field Notes

On a voluntary basis, a total of three schools out of the 13 participated in student focus-group interviews (see Table 6). School officials selected between four and five students, focusing on the students who would be the most able to answer to the interview questions. Focus-group interviews, conducted in Japanese, lasted around 50 minutes each and focused on their experience of preparing for the entrance exams. The interviews covered themes such as: entrance strategies, perceptions of university entrance procedures, their home and educational environments, and “effort” as the reason for success.

Table 6. Participants and Dates of Student Focus-Group Interviews

High School	Number of Interviewees	Date of the Interview
High school D	4	December 12 th
High school F	4	November 15 th
High school H	5	February 25 th

Note. Source: created by author.

Field notes were taken based on informal discussions with teachers. As the university entrance examination landscape has not experienced any radical changes since the pilot study, field notes from this time were also included as they improve the understanding of the whole situation. Three discussions were particularly interesting for this purpose and were included in the data.

III. Operational Model

This section describes how the concepts discussed in the previous two chapters were operationalized in the questionnaire. It describes dependent variables first (constituent elements of merit) and then independent variables.

A. Dependent Variables

Questions on constituent elements of merit were designed on a 5-point Likert-scale. Table 7 describes how each constituent element of merit was operationalized.

Table 7. Operationalization of the Constituent Elements of Merit

Constituent Element of Merit	Description
Perceived amount of effort necessary to succeed the procedure (challenge)	Respondent's perceived necessary amount of effort to succeed in the entrance procedure. It was coded as: (1) Strongly disagree, (2) Disagree, (3) Neither agree nor disagree, (4) Agree or (5) Strongly agree.
Perceived appropriateness of the procedure	Respondent's perceived validity of the university entrance procedure as one that recognizes individual abilities. It was coded as: (1) Strongly disagree, (2) Disagree, (3) Neither agree nor disagree, (4) Agree or (5) Strongly agree.
Perceived equal treatment of candidates in the procedure (equality)	Respondent's perceived non-influence of background factors in the result of the entrance procedure. It is coded as: (1) Strongly disagree, (2) Disagree, (3) Neither agree nor disagree, (4) Agree or (5) Strongly agree.
Perceived usefulness of the knowledge gathered during preparation	Respondent's perceived usefulness of the knowledge gathered during entrance procedure preparation time for a future use. It is coded as: (1) Strongly disagree, (2) Disagree, (3) Neither agree nor disagree, (4) Agree or (5) Strongly agree.

Note. Source: created by author.

B. Independent Variables

i. Environmental variables

- Economic capital

Economic capital was measured using a proxy question on household assets²⁶. It consisted of a checklist of assets a respondent (and his or her family) possessed. They were coded: (0) if the respondent did not have the asset and (1) if the respondent had it. This checklist was then compiled into a continuous variable. Table 8 shows the descriptive statistics regarding the proxy question about economic capital. Out of a total of 17 different assets, 77.7% of the respondents indicated having between 10 and 15 items on the list, indicating an upper-middle social class level of economic capital.

Table 8. Number of Reported Family Assets²⁷

Number of Reported Family Assets	Percentage
1	0
2	0.1
3	0.1
4	0.2
5	0.3
6	0.6
7	1.1
8	3
9	7
10	9.7
11	14.8
12	16.9
13	17.3
14	11.5
15	7.5
16	3
17	1.4
Missing	5.3
Total	100

Note. Source: created by author

²⁶ Source: SSM Survey 2005.

²⁷ The complete list of assets is indicated in Appendix 5, p.152.

- Selectivity

The school's level of selectivity was measured by using the *hensachi* scale of its student body average as reported by Obunsha (2015). It was coded: (1) Top tier, (2) Middle tier and (3) Lower tier. The sample was comprised of all the questionnaires available, with 21.6% from the top tier, 53.1% from the middle tier and 25.4% from the lower tier (Figure 7).

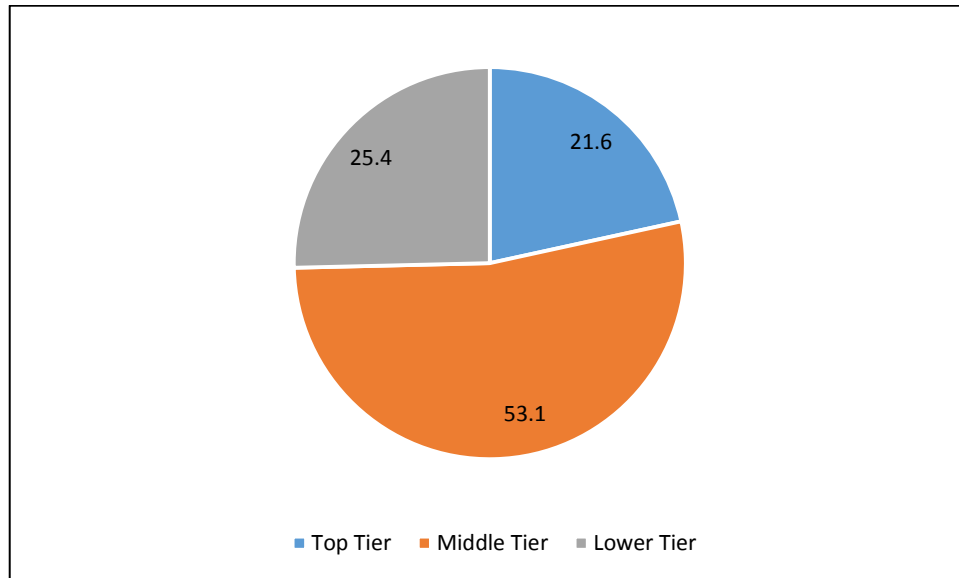


Figure 7. School Selectivity (by Tier, Expressed in Percentages). Source: created by author.

- Internal Promotion

High schools were classified based on the possibility (or not) for their students to use the internal promotion system or *naibushingaku*. It was coded: (0) Not offered and (1) Offered. The sample examined in the current study included three schools offering the internal recommendation procedure option. This option was available for 29.7% of the students in the sample (Figure 8).

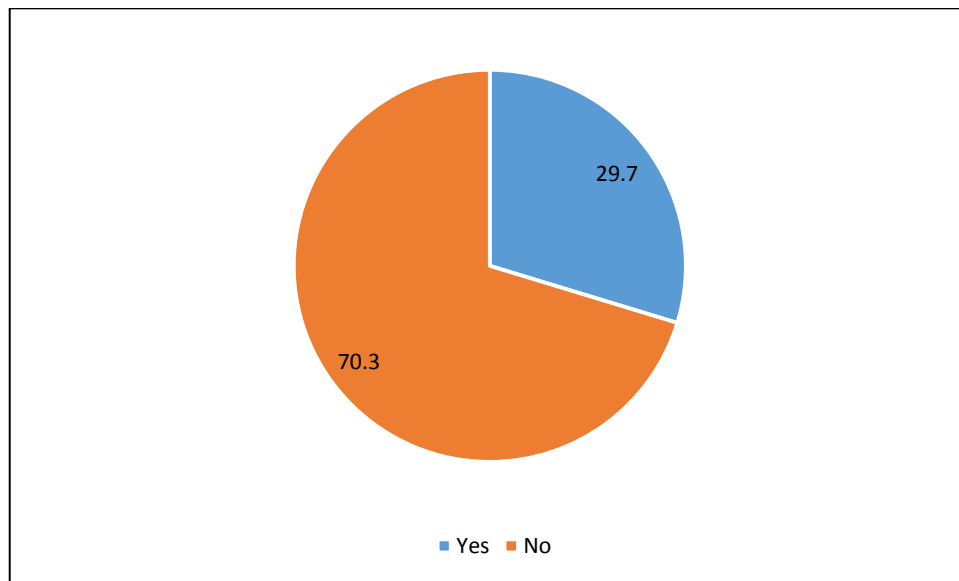


Figure 8. Availability of the Internal Recommendation Procedure Option (Expressed in Percentages). Source: created by author.

ii. Personal Involvement Variables

- Entrance Strategy

The respondents' targeted entrance procedure to access their first-choice universities allowed multiple-answers. It was coded: (1) General Entrance Exam, (2) Center Exam, (3) Non-internal Recommendation Procedures, (4) Internal Recommendation Procedures, (5) AO Procedures, (6) Special Admission Procedures, and (7) Other²⁸. Figure 9 shows that 726 students indicated choosing the general entrance exam for their first choice university. A total of 411 students targeted recommendation procedures (both internal and non-internal); Center Exam, 387; AO procedures, 226; and special admissions, 29 students.

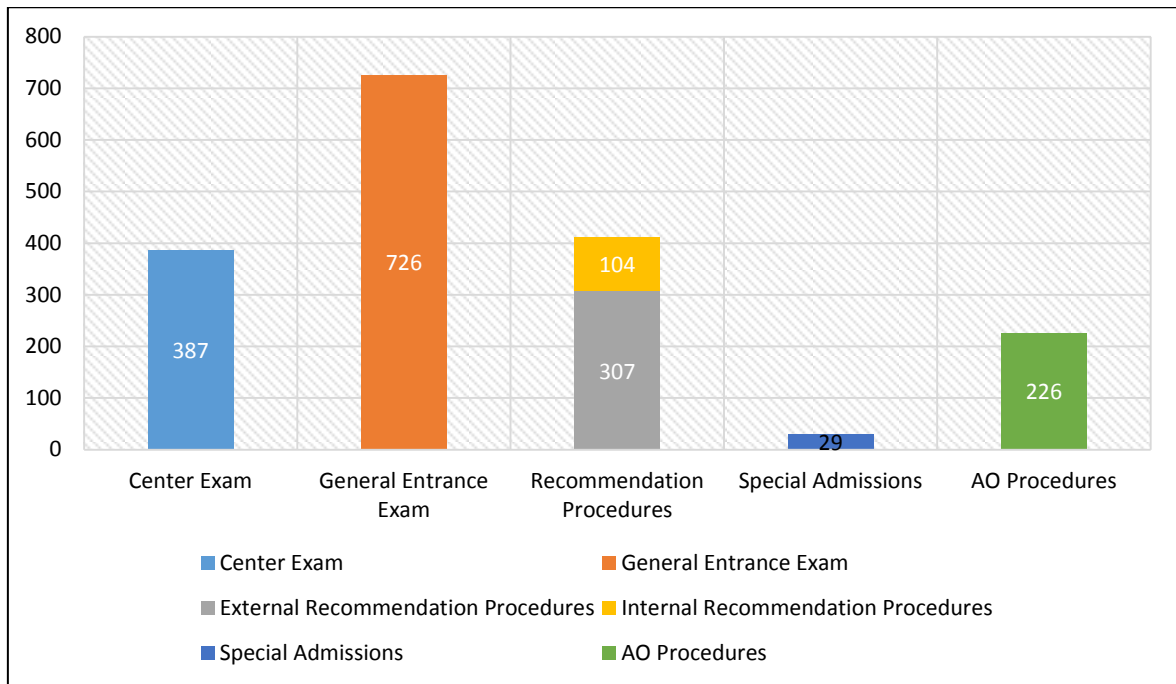


Figure 9. Targeted Entrance Procedures to Apply for First-Choice University (Multiple Answers Possible). Source: created by author.

²⁸ Universities are extraordinarily diverse in nature and academic offerings, resulting in some entrance exams not fitting into the six categories devised (e.g. a student mentioned an entrance procedure to enter his targeted faculty of veterinary sciences that did not fall into any of these categories). A category "Others", not shown in Figure 8, totaled only 12 students.

- Self-Reported Study Hours

This variable indicates respondent's time devoted to studying each week, excluding in-school hours. It was coded: (1) Fewer than 5 hours, (2) Between 5 and 10 hours, (3) Between 10 and 15 hours, (4) Between 15 and 20 hours, (5) Between 20 and 25 hours, (6) Between 25 and 30 hours, and (7) More than 30 hours. As shown in Figure 10, 29.4% of students in the sample indicated working fewer than 5 hours outside of school each week while 20.1% indicated more than 30 hours of work. As for the categories in between, 9.3% indicated 25 to 30 hours of work, 11.4%, 20 to 25 hours; 9.4%, 15 to 20 hours; 8.2%, 10 to 15 hours; and 11.1%, 5 to 10 hours of work.

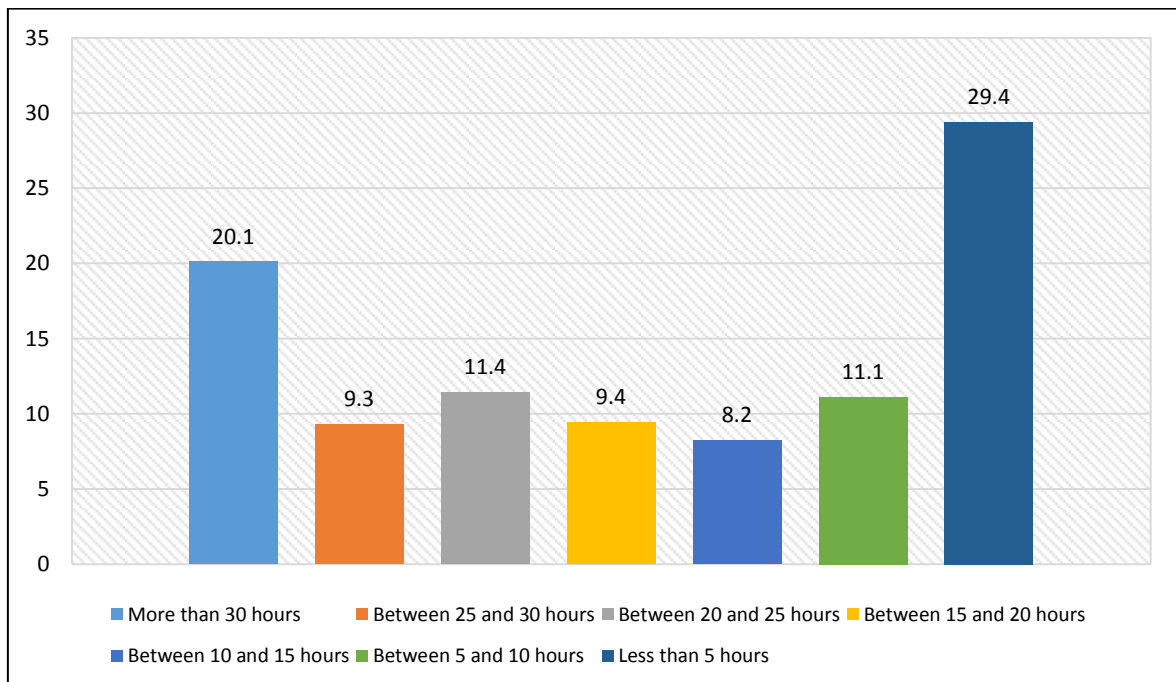


Figure 10. Self-Reported Study Hours (Expressed in Percentages). 1.1% of students in the sample did not answer this question. Source: created by author.

- Self-Reported Achievement

The self-reported achievement variable indicates a respondent's self-reported rank in his or her class. It is coded as (1) Bottom of the ranking (2) Lower middle rank, (3) Average rank, (4) Upper middle rank, or (5) Top of the class. As Figure 11 shows the majority of students ranked themselves in the middle of their classes with 33.4% of respondents choosing this answer. Eleven percent reported being in the upper tier of the class, 19.1% in the middle-upper tier, 15.9% in the middle-lower tier and 18.7% in the lower tier of their classes.

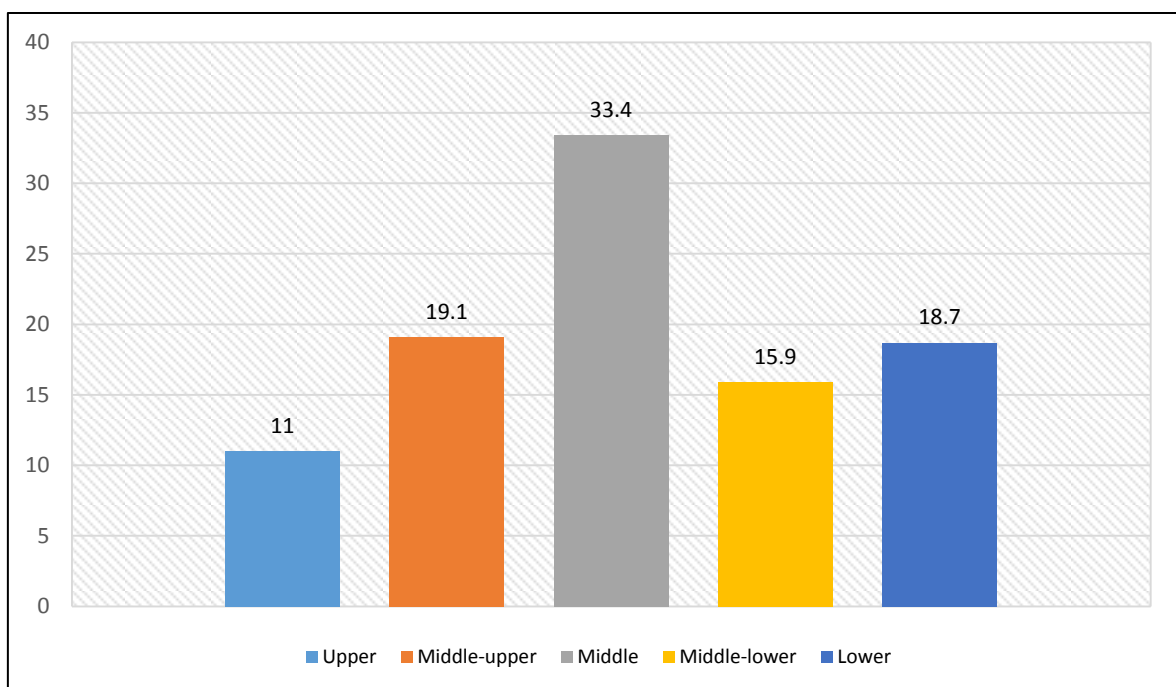


Figure 11. Self-Reported Achievement (Expressed in Percentages). 2.6% of the students in the sample did not answer this question. Source: created by author.

iii. Control Variables

- Belief in Effort Ideology

A control variable measured respondents' degrees of support for the statement "If you put forth effort, you will necessarily achieve your goal." It was coded: (1) Disagree, (2) Somewhat disagree, (3) Neither agree nor disagree, (4) Somewhat agree or (5) Agree²⁹. As Figure 12 shows, 65.2% of students reported general agreement with this statement. Eighteen point five percent neither agreed nor disagreed and 13.7% expressed general disagreement for the statement on effort.

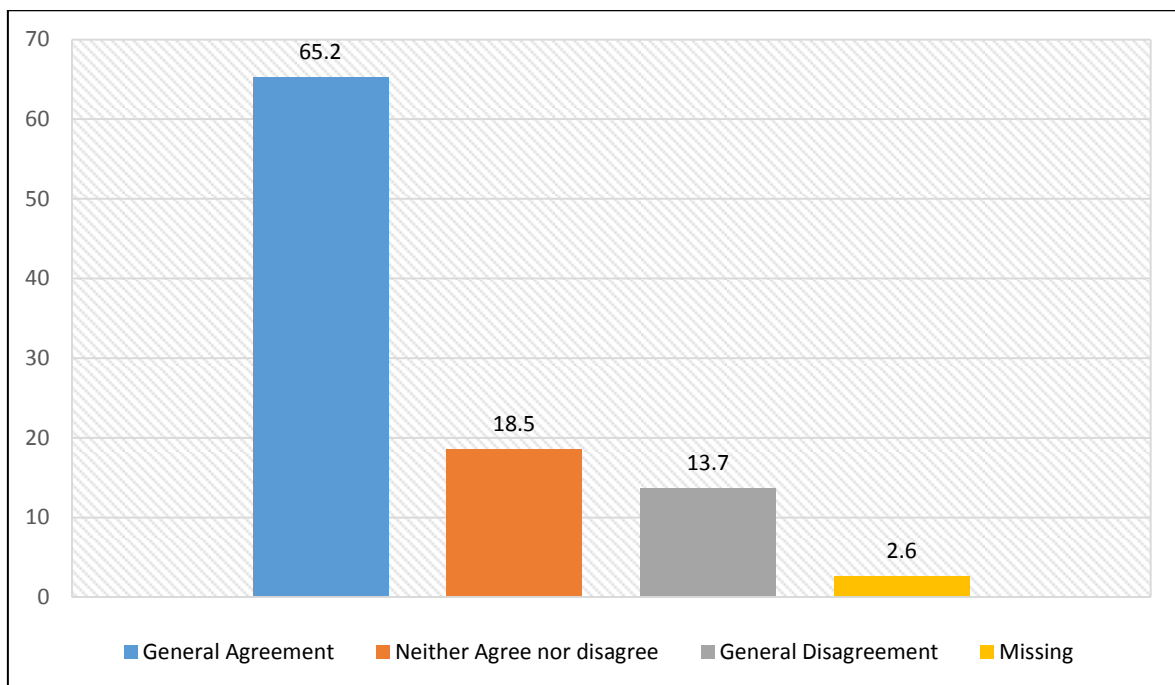


Figure 12. Respondents' Belief in the Effort Ideology (Expressed in Percentages). Source: created by author.

²⁹ Scale adopted from 2005 SSM Survey (2005)

- Respondent's Gender

The respondent's gender variable was coded: (0) for Male or (1) for Female³⁰. The sample was comprised of 64.1% girls and 34.8% boys. This was due both to an unequal balance within high schools themselves (more all-girls' high schools than boys' high schools in the Tokyo area) and greater cooperation from all-girls' high school officials during the high schools recruitment phase (Figure 13).

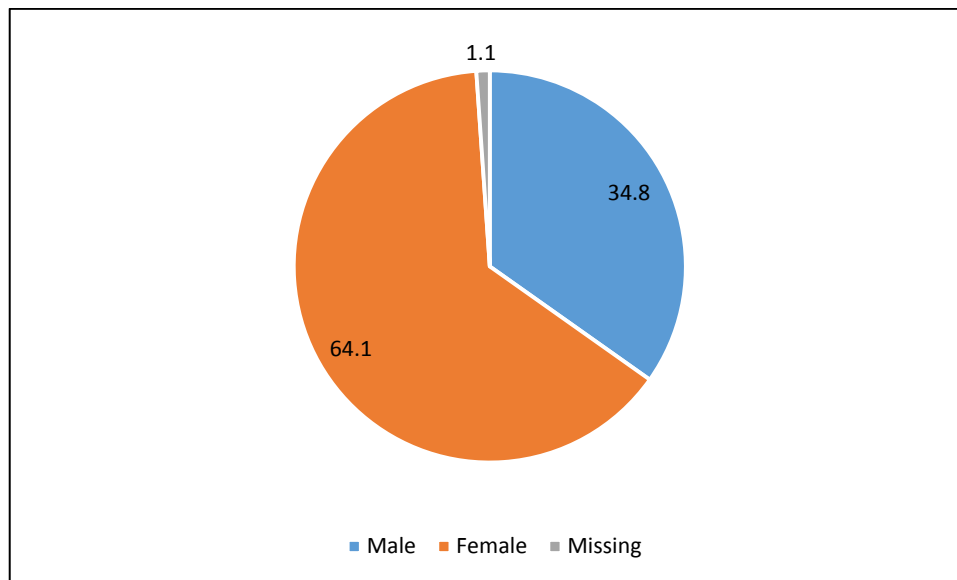


Figure 13. Respondents' Gender (Expressed in Percentages). Source: created by author.

IV. Analytical Model

This dissertation is based on the explanatory mixed-methods, or QUAN-qual model. Thus, a more substantial part of the analysis is devoted to the quantitative parts of the analysis. This design was used to test several hypotheses quantitatively first, and later enrich the interpretation of the results by examining how social actors experience the social phenomena under scrutiny through the use of qualitative methods.

³⁰Source: 2005 SSM Survey (2005)

A. Analytic Structure of the QUAN-qual Model

Gay et. al. (2009) describe the QUAN-qual model (also called the explanatory mixed-methods model) as a two-phase procedure in which the quantitative analysis phase is given greater attention than that of the qualitative analysis phase. The goal of this model is to verify the hypotheses derived from the literature and enrich the interpretation of the observed phenomena with the respondents' experience. As the goal of this dissertation was to understand current high school students' perceptions of merit as measured by the various university entrance procedures, this model was considered relevant. While empirically verifying certain hypotheses about merit, it offered greater perspective and suggested new avenues for further research through the findings obtained in the qualitative phase.

As the focus of this dissertation is on merit perceptions, its measurement was operationalized through the degree of support for various statements, using a 5-point Likert scale (see Section III, this chapter). As this variable is ordinal in nature, Ordinal Logistic Regression was employed for quantitative data analysis (Field, 2009; Norusis, 2008; O'Connell, 2006).

Comment analysis was conducted to understand the ratings given to the various aspects of merit. Each question about the various constituent elements of merit included a comment section, inviting respondents to explain their ratings. Another comment section was included at the end of the questionnaire to allow respondents to reflect on the diversified university entrance system.

Lastly, in order to capture the dynamics of interaction between respondents on a given topic, focus group interviews were also conducted and analyzed as part of the qualitative phase (Morgan, 1997). A review of the literature revealed a lack of research on the changing notion of merit and its perception among high school students. The idea-generating aspect of the focus group interview thus appeared as the most logical option to investigate the results obtained during the quantitative phase (Morgan, 1997).

B. Quantitative Analysis: Ordinal Logistic Regression

Ordinal Logistic Regression, also called the Cumulative Odds Model (O'Connell, 2006), is an extension of logistic regression. As O'Connell (2006) explains,

“It is one way to conceptualize how the data might be sequentially partitioned into dichotomous groups while still taking advantage of the order of the response categories.” (p.28)

The preservation of the ordinal nature of the dependent variable (as opposed to an analysis using multinomial regression) in the model is also found in Norusis (2008). Since this dissertation primarily uses degrees of support for statements on various aspects of merit (4 statements per exam, reaching a total of 24 statements), the ordinal nature of the data was a central feature in the analysis. Ordinal logistic regression thus seemed to be the best model for quantitative data analysis.

Data analysis was performed using SPSS. The formula for calculation was the following (it is written using minus coding, Norusis 2008):

$$\bullet \quad \text{Ln} \left(\frac{\pi_j(\underline{x})}{1-\pi_j(\underline{x})} \right) = \alpha_j - (\beta_1 X_1 + \beta_2 X_2 + \dots \beta_p X_p)$$

The left part is the logit, the log of the odds that an event (\underline{x}) will occur. $\pi_j(\underline{x})$ represents the probability that a response falls into a category which is less than or equal to the j^{th} category. Consequently, j is always equal to the dependent variable's number of categories minus 1. The right part of the equation is composed of the thresholds (α_j) – (also called ‘cutpoints’ between response categories) and $(\beta_1 X_1 + \beta_2 X_2 + \dots \beta_p X_p)$, which are the coefficients of the predictor variables, or effects of a given X on the dependent variables. The Regression could then be expressed in the following way:

$$\text{Ln} \left(\frac{\pi_5(\text{Support for the idea that an entrance exam is driven by the constituent element of merit})}{1 - \pi_5(\text{Support for the idea that an entrance exam is driven by the constituent element of merit})} \right) \\ = \alpha_5 - (\beta_{\text{Family assets}} X_{\text{Family assets}} + \beta_{\text{High school selectivity}} X_{\text{High school selectivity}} \\ + \beta_{\text{Internal promotion}} X_{\text{Internal promotion}} + \beta_{\text{Entrance strategy}} X_{\text{Entrance strategy}} \\ + \beta_{\text{Self-reported study hours}} X_{\text{Self-reported study hours}} \\ + \beta_{\text{Self-reported achievement}} X_{\text{Self-reported achievement}} \\ + \beta_{\text{Belief in Effort ideology}} X_{\text{Belief in Effort ideology}} + \beta_{\text{Gender}} X_{\text{Gender}})$$

The results obtained through the twenty-four regressions served as the first and primary step for analysis. The analysis was completed with the second phase which employed qualitative data collection, process and analysis.

C. Qualitative Analysis

The QUAN-qual model places emphasis on conducting quantitative analysis first and then seeking meanings of these data through a posterior qualitative phase. A total of three different sources for qualitative analysis were used: questionnaire comments, focus-groups and field notes. This research places itself at the crossroads of two methodological approaches. It was designed to obtain more extensive interpretations of quantitative results allowing interpretive findings to emerge, through an iterative approach. Comment analysis could have been a sufficient complementary source of explanation for the hypothesis to be tested, but this would have foregone an important aspect of this research which was to humanize an understanding of merit perceptions as measured by entrance exams; a phenomenon that remains largely unexplored. Direct interaction with students through focus-group and with teachers through informal interviews, which were compiled in field notes, was crucial to bring new elements of understanding to questions that questionnaire alone would have left unanswered. As these different forms of qualitative data ultimately serve different purposes, and use radically different approaches to data collection, it would be senseless to analyze them following the same coding categories.

It would be equally illusory with such an approach, however, to claim full neutrality while analyzing data. This is particularly true when taking into consideration data extracted from focus-group interviews and field notes. Indeed, this study is primarily driven by a theoretical verification perspective. Its second goal is to offer more potential avenues for further analysis of students' merit perceptions within the context of the diversification of university entrance procedures. Thus, if these data are approached through an emic perspective obtained from high school communities, no claim that this emic perspective is fully quarantined from etic elements brought to it by the researcher is made³¹. Indeed, having approached the field through reading related literature, and existing theories necessarily influence, to some extent, the data analysis. Nevertheless, local meanings are essential in challenging and rounding off questions which are produced by theoretical assumptions and are crucial to further our understanding of the changes to the perceptions of merit brought by the diversification of university entrance procedures.

i. Comment Analysis

In order to understand the results obtained during the quantitative phase more deeply, analysis of questionnaire comments for eight question items was included. Seven of these related directly to questions about informants' perceptions of the various constituent elements of merit (evaluated on a 5-point Likert scale) and the eighth one was the final comment section (any further comment the respondents would like to make on the diversification of university entrance procedures). A total of six categories and eighteen subcategories were used for analysis of questionnaire comments (see Table 9). Comments were divided based on the types of exams respondents discussed and their tone relative to the type of exam.

Comment analysis was conducted using a text mining approach (Yu, Jannasch-Pennell & Di Gangi, 2011) through a keyword search (12 in total, separated in two categories: the name of the

³¹ Respondent validation at the end of the interview was conducted.

exam and its reference letter in the questionnaire), followed by an analysis of the context of the keyword occurrence. The main categories that were derived for data analysis consisted of the six entrance exam names (separating internal from non-internal recommendations) and their questionnaire reference letters (“a,” “b,” “c,” “d,” “e” and “f”). The first phase was thus to count the number of occurrences of a specific keyword (see Appendix 7, p.195, for the detailed list). The second phase was to write a comment analysis based on the context of the keyword appearance and subsequently rank the comments into subcategories. Subcategories were designed based on the degree of support expressed in the comment for each exam as a merit-based selection instrument. Determining comment tones was done through a careful analysis of both the syntax and semantic meanings employed, while keeping in mind the need to evaluate the degree of support for the various exams as meritocratic selection procedures.

The number of occurrences in each subcategory was also counted, and the reasons given by students which explain their appraisals were compiled. Degrees of support were divided into three levels: “general agreement,” “neutral” and “general disagreement,” as well as adding an “unrelated” category when comments mentioned the keyword without evaluating it. Comment tones were devised based on students’ emphasis on: 1) their support of the exam whose characteristics appear to follow meritocratic principles (positive), 2) lack of support of the exam, whose characteristic appear not to follow meritocratic principles (negative), or 3) struggle between these positive and negative sides, resulting in more nuanced appreciations and ranked as neutral. Due to the content of comments, which often went beyond the question framework, ranking the support of the exam was approached in a holistic sense, reflecting the complex nature of merit.

Table 9. Categories Used for Comment Analysis

Type of Exam and Comment Tone	Category Description
Center Exam Positive (general agreement) Indecisive Negative (general disagreement)	Any comment related to the Center Exam, with subdivisions for positive, negative and indecisive evaluations of it.
General Entrance Exam Positive (general agreement) Indecisive Negative (general disagreement)	Any comment related to the general entrance exam, with subdivisions for positive, negative and indecisive evaluations of it.
Non-internal Recommendation Procedures Positive (general agreement) Indecisive Negative (general disagreement)	Any comment related to the non-internal recommendation procedures, with subdivisions for positive, negative and indecisive evaluations of it.
Internal Recommendation Procedures Positive (general agreement) Indecisive Negative (general disagreement)	Any comment related to the internal recommendation procedures, with subdivisions for positive, negative and indecisive evaluations of it.
Special Admission Procedures Positive (general agreement) Indecisive Negative (general disagreement)	Any comment related to the special admission procedures, with subdivisions for positive, negative and indecisive evaluations of it.
AO procedures Positive (general agreement) Indecisive Negative (general disagreement)	Any comment related to the AO procedures, with subdivisions for positive, negative and indecisive evaluations of it.

Note. Source: created by author.

ii. Focus-Group Interviews

Contrary to comments analysis, the format of the focus-group interview subjected discussion to group dynamics and unexpected information, and thus, a grounded theory approach was deemed more useful so an iterative process was traversed while analyzing and coding the data. The focus for analyzing focus-group interview data therefore moved, from an etic perspective to an emic one (Morris, Leung, Ames & Lickel, 1999; Olive 2014).

Among the 13 high schools participating in the study, three voluntarily took part in the focus-group interview phase. It is likely that interviewees had their own biases when discussing the various topics. Therefore the combined use of comment analysis (which helped balance and

compensate for such biases) and field notes (which primarily gathered educators' views) further counterbalanced the students' views.

High school D's group was comprised of four students who were selected by the school official. Three of them were from the same class opting for the general entrance exam and one from another class who had gone through the recommendation system. Concerned with the students' capacity to answer my questions on the diversity in university entrance processes, the school official provided me with this group. The student using the recommendation procedure system had already been accepted to university at the time of the interview. High school H's group was comprised of five students, selected by the school official, all of whom had finished their university entrance exam process at the time of the interview. Four had applied through the general entrance exam while one undergone AO procedures. Among the four who had applied through the general entrance exam, one had tried a self-recommendation procedure beforehand but had failed. High school F's group was comprised of four students, also selected by the school official. They all had chosen to prepare for the general entrance exam and were still preparing to take the exams at the time of the interview. Table 10 sums up the various options targeted by students for entrance to university. As the configurations regarding entrance to university vary, biases involved in the data collected certainly do too. It is thus important to keep this aspect in mind when reading the findings.

Table 10. Targeted Entrance Exams per High School (Interview Groups)

High School	Targeted Exam	Number of Students Concerned
High School D	General Entrance Exam	3
	Recommendation (Non-Internal)	1
High School F	General Entrance Exam	4
High School H	General Entrance Exam	3
	AO	1

Note. Source: created by author.

For the analysis, based on the transcription of the interviews, a total of seven categories and eight additional sub-categories were used (Table 11). Their recurrence in students' focus-group interviews was counted and their main points were summed up, enriching the categories' precision and bringing about analytic adjustments. These dimensions of the students' experience were then linked with results from the Ordinal Logistic Regression and comment analysis to further qualify answers to the entire study question. As the interviews were not specifically about justifying the numerical rating given to questions in the questionnaire about the constituent elements of merit, categories used for interviews were different from categories used in the comment analysis.

Table 11. Categories Used for Focus-Group Interview Analysis

Categories and Sub-Categories	Description
Strategizing <ul style="list-style-type: none"> - Calendar - Exam choice 	Any indication on how students strategize about their exam taking process, including specific subcategories for calendar creation and exam choice
Exam Perception <ul style="list-style-type: none"> - Standardized negative - Standardized positive - Customized negative - Customized positive 	Any perception, judgement or criticism the interviewees indicated about exams. Subcategories include positive and negative comments for standardized forms of exams and positive and negative comments about customized forms of exams
Exam Content	Any information or knowledge respondents have on entrance exams
Effort	Any information on effort required to prepare and take exams, including definitions of effort itself
Environment <ul style="list-style-type: none"> - Family - School 	Any information about students' environment, including subcategories related to family and school
Solutions Suggested	Any solutions students suggest to improve the current entrance exam system
Social Views	Any information about the interviewees' view of society, including their perception of Japanese meritocracy

Note. Source: created by author.

iii. Field Notes

Lastly, field notes were compiled based on high school visits and discussions with school contact officials. As some elements from the pilot study facilitated a better understanding of the whole picture of the reality of entrance exams, they were also included in the analysis. Only content-relevant notes were used. Indeed, most school officials did not show much concern outside of the involvement of the study in terms of organization, questionnaire distribution and collection.

Field notes covered a total of three high schools, including one from the pilot study and one that eventually declined participation in the questionnaire. All of the high school officials were motivated for different reasons (including an interest in the topic itself or potential practical application in their counseling activities) and were keen to discuss the situation brought on by the diversification of university entrance exams in Japan.

D. Scope and Limitations (Disclaimer)

This study was initiated to update the theoretical notions of merit as it is conceived pertaining to university entrance examinations in Japan through the scope of 12th graders' perceptions attending private high schools in Tokyo. It therefore primarily addresses empirical verification of theories about merit in the context of Japanese university entrance examinations. It also tests the operationalization of an indicator of merit (composed of the four constituent elements: challenge, appropriateness, equality and usefulness of knowledge), which is based on the concept of J-mode meritocracy. As the research questions proposed in this dissertation remain largely uncovered in available literature and their scope and approach are unique, the current study does not aim at specifically identifying what motivates students' perceptions of merit. In order to reach a quantitatively satisfactory result on this point, the study will have to be refined, adjusted and replicated based on findings presented here within.

What is more, there was a low response rate for some indicators, (e.g. cultural capital and time capital: 80% of responses for cultural capital, and confusion of meaning (time capital question)). It is believed that the pilot study was unable to identify these problems as students from the high schools in the pilot study sample were from high tier high schools and more aware of their own parents' level of education. Meanwhile, although time capital indicators were introduced as potential improvements after the pilot study, they could not be tested in a second pilot study and thus suffered from design and reliability issues. This led to confusion on respondents' side. This was later identified as being too complicated to be addressed within the current study's design, requiring a different approach (observation as a preferred method) to provide exploitable results.

Chapter 5: Quantitative Results

This chapter describes the quantitative results obtained during the first phase of the study. It presents descriptive statistics first and inferential statistics afterwards. Hypotheses are also addressed.

I. Descriptive Statistics

This section focuses on addressing the first research question: How do 12th graders from private high schools in Tokyo perceive the various university entrance procedures? It is primarily an analysis of the descriptive statistics obtained. Each figure indicates the degree of support students indicated, per exam, for each of the four constituent elements of merit: challenge (“cha” hereafter), appropriateness of the measurement (“app” hereafter), equality (“eq” hereafter) and usefulness of the knowledge gathered during the exam preparation (“use” hereafter). Appendix 8 (p.196) presents the results in a different format, describing results for each constituent elements of merit.

A. Center Exam

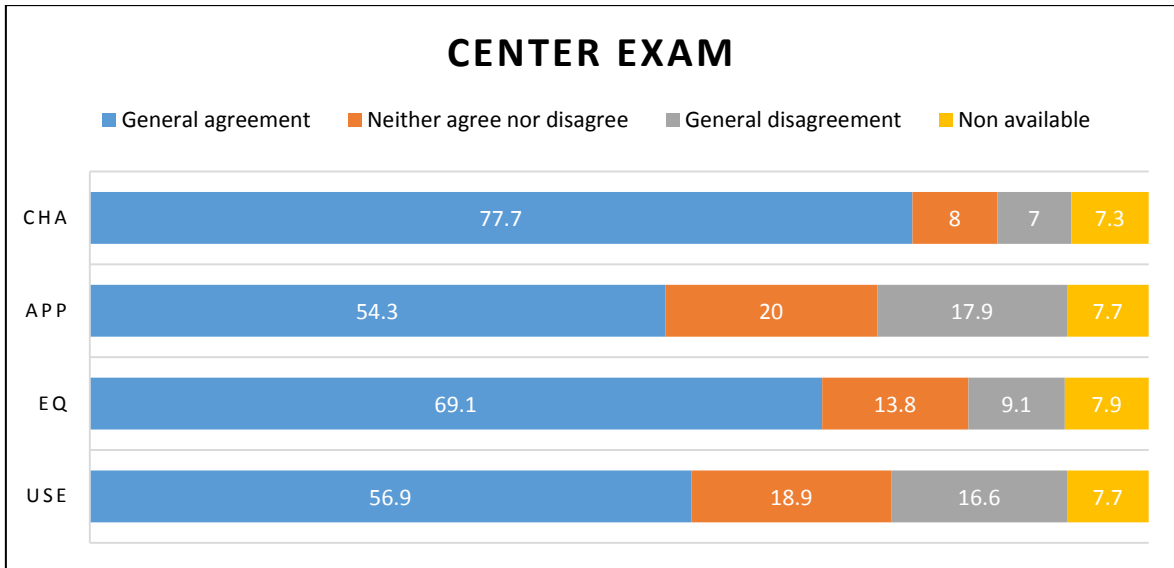


Figure 14. Constituent Elements of Merit Perception for the Center Exam. X-axis abbreviations stand for the following: “Cha:” Challenge; “App:” Appropriateness; “Eq:” Equality; “Use:” Usefulness of Knowledge. Source: created by author.

As shown in Figure 14, 77.7% of students in the sample recognized the Center Exam as a challenging examination. This means that more than three quarters of students in the sample agreed that it required a great deal of effort to succeed. It is therefore possible to say students generally agree on the perception that cramming ability involved for this exam requires significant effort. Fifty-four point three percent indicated the Center Exam, taken as a university entrance procedure, provided an appropriate measurement of individual abilities. Also, for 69.1% of the students in the sample, the Center Exam guarantees equality among applicants. Fifty-six point nine percent of students ultimately considered the knowledge acquired for the Center Exam preparation useful after taking the exam.

B. General Entrance Exam

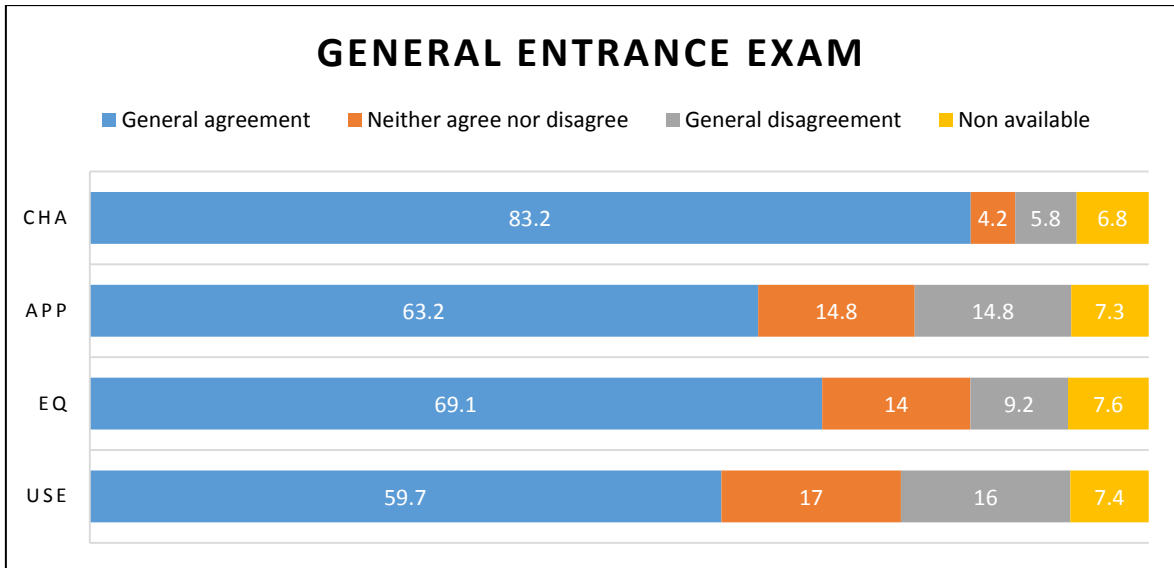


Figure 15. Constituent Elements of Merit Perception for the General Entrance Exam. X-axis abbreviations stand for the following: “Cha:” Challenge; “App:” Appropriateness; “Eq:” Equality; “Use:” Usefulness of Knowledge. Source: created by author.

Eighty-three point two percent of students described the general entrance exam as challenging (Figure 15). The general entrance exam also is seen as providing an appropriate measurement of individual abilities given the large general agreement on this aspect (63.2%). The general entrance exam remains egalitarian in the eyes of most of the respondents (69.1% of general agreement). Lastly, 59.7% of the respondents considered the knowledge required for this exam to be useful in the future (in the understanding that everything is forgotten after taking and passing the test).

C. Non-Internal Recommendation Procedures

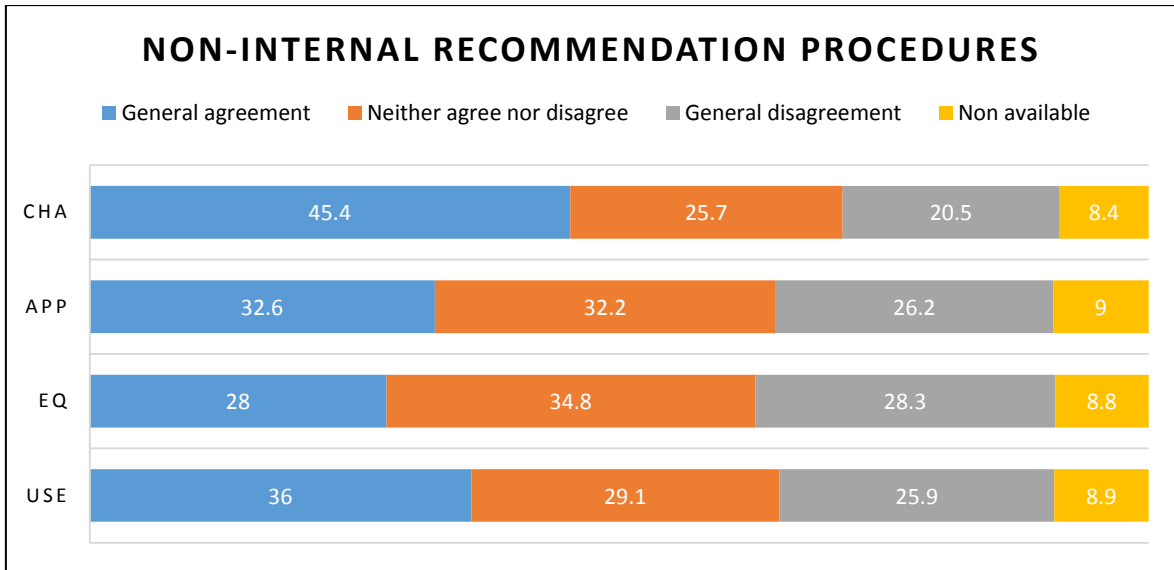


Figure 16. Constituent Elements of Merit Perception for the Non-internal Recommendation Procedures. X-axis abbreviations stand for the following: “Cha:” Challenge; “App:” Appropriateness; “Eq:” Equality; “Use:” Usefulness of Knowledge. Source: created by author.

Non-internal recommendation procedures were challenging for less than half of the sample, with only 45.4% general agreement (Figure 16). Furthermore, only 32.6% of the respondents indicated they considered it as an appropriate measurement for individual abilities. Twenty-eight percent considered it a guarantee of equality in the treatment of candidates and the usefulness of the knowledge required for its preparation was only supported by 36% of the respondents.

C'. Internal Recommendation Procedures

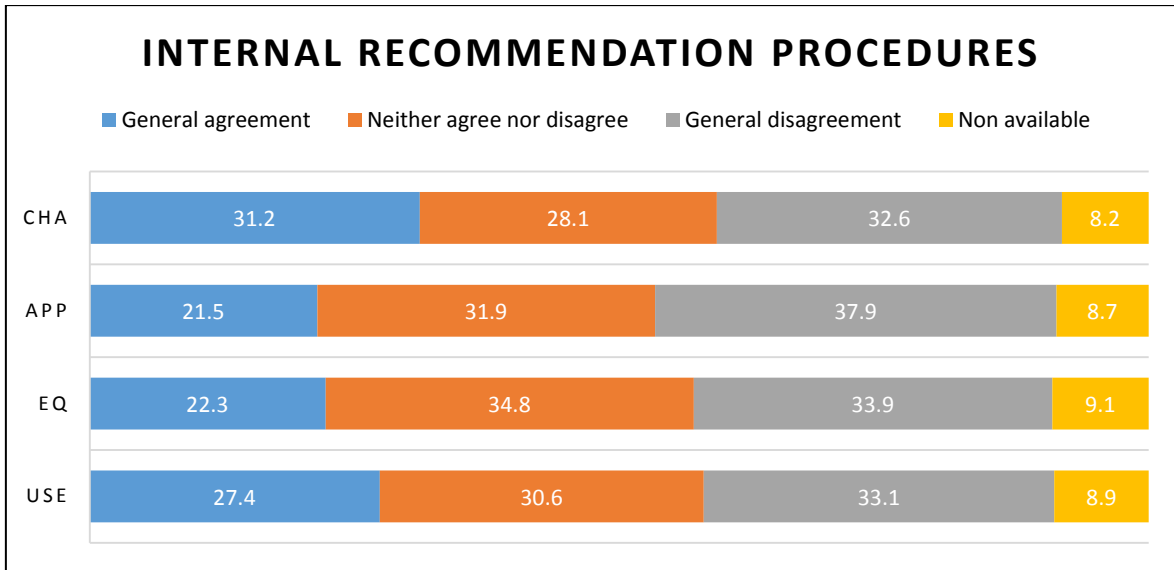


Figure 17. Constituent Elements of Merit Perception for the Internal Recommendation Procedures. X-axis abbreviations stand for the following: “Cha:” Challenge; “App:” Appropriateness; “Eq:” Equality; “Use:” Usefulness of Knowledge. Source: created by author.

As shown in Figure 17, 31.2% of the students agreed on internal recommendation procedures’ challenging nature. Also, 21.5% agreed on their appropriate measurement, 22.3% on their guaranteed equality and 27.3% on the question of the usefulness of the knowledge required for their preparation.

D. Special Admissions Procedures

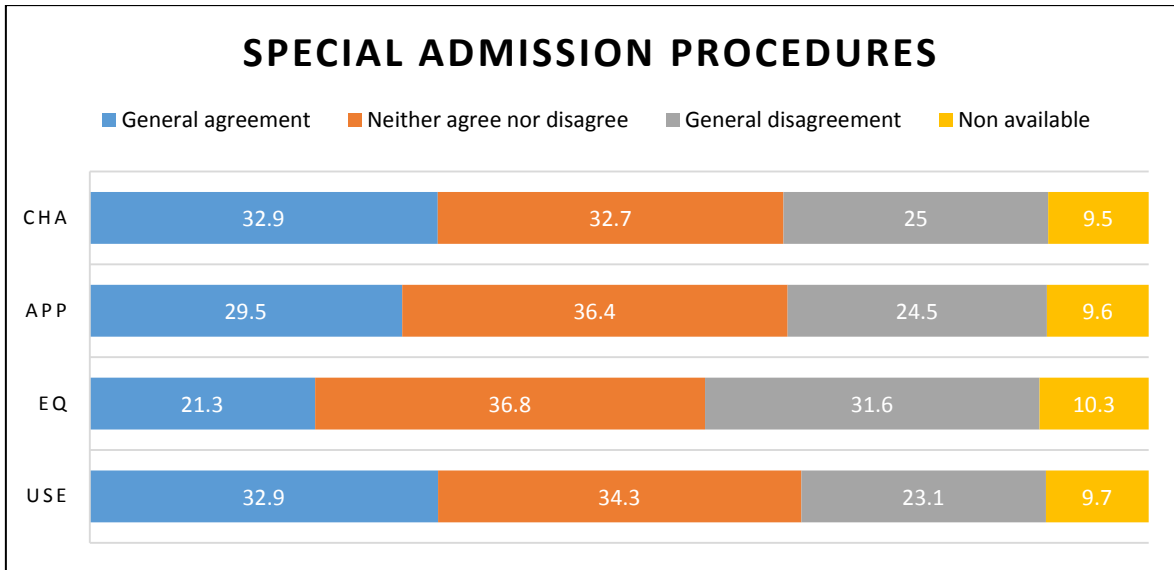


Figure 18. Constituent Elements of Merit Perception for Special Admission Procedures. X-axis abbreviations stand for the following: “Cha:” Challenge; “App:” Appropriateness; “Eq:” Equality; “Use:” Usefulness of Knowledge. Source: created by author.

Around one-third of the respondents could neither agree nor disagree with the constituent elements of merit of the special admissions. As Figure 18 shows, 32.9% considered special admissions challenging, 29.5% as an appropriate measurement, 21.3% as guaranteeing equality and 32.9% agreed on the usefulness of the knowledge required in preparation for these procedures.

E. Admission Offices Procedures

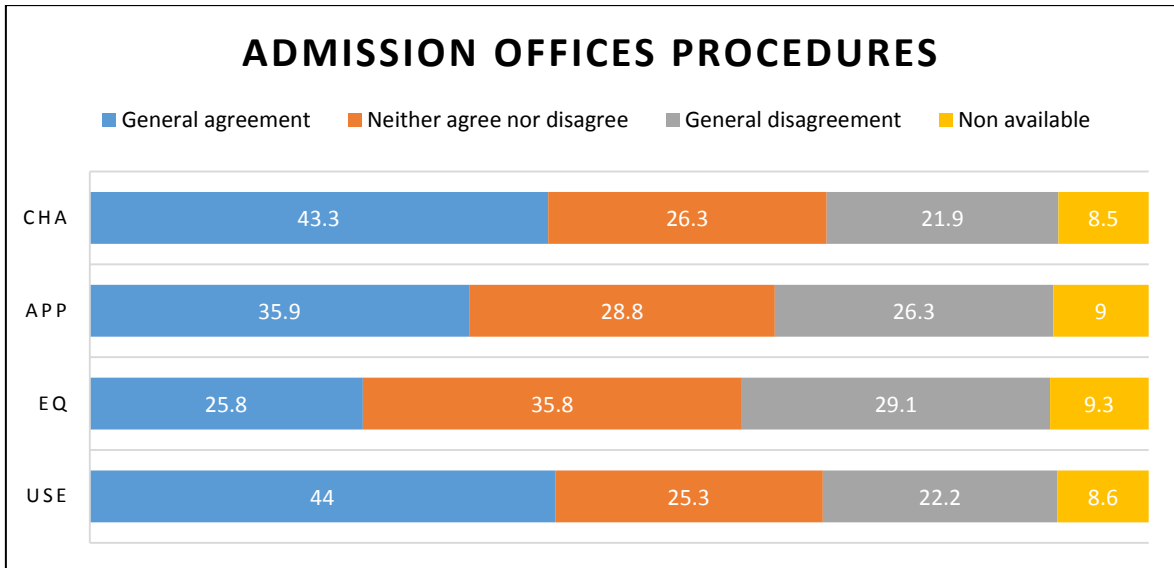


Figure 19. Constituent Elements of Merit Perception for Admission Offices Procedures. X-axis abbreviations stand for the following: “Cha:” Challenge; “App:” Appropriateness; “Eq:” Equality; “Use:” Usefulness of Knowledge. Source: created by author.

Although admission offices procedures are seen as challenging by less than one out of two students (43.3% of general agreement), similar to the other customized forms of exams, a non-negligible portion of the students (26.3%) could neither agree nor disagree (Figure 19). Thirty-five point nine percent of the students indicated the AO procedures as providing an appropriate measurement of individual abilities, 25.8% indicated agreeing on the equality it guarantees and 44% agreed on the usefulness of the knowledge required for the exam.

II. Ordinal Logistic Regressions Results And Analysis of Factors Explaining Merit Perceptions

This section presents the ordinal logistic regression results, as well as the various results obtained for each independent variable. Ordinal logistic regression outputs are presented first. The details and analysis are presented afterwards, which focus on the various results obtained for the same independent variable throughout all regression tables.

Table 12. Ordinal Logistic Regression: Center Exam

	Model 1 (Cha)	Model 2 (App)	Model 3 (Eq)	Model 4 (Use)	
Threshold 1	-3.438*** (0.505)	-2.168*** (0.420)	-1.909*** (0.474)	-1.314** (0.426)	
Threshold 2	-2.974*** (0.497)	-1.235** (0.412)	-1.346** (0.467)	-0.407 (0.419)	
Threshold 3	-2.024*** (0.487)	-0.217 (0.410)	-0.293 (0.461)	0.622 (0.419)	
Threshold 4	-1.074* (0.440)	0.899* (0.411)	0.410 (0.461)	1.424** (0.421)	
Family Assets	-0.039 (0.033)	-0.033 (0.028)	0.004 (0.031)	0.017 (0.028)	
Selectivity					
Low Tier	-0.236 (0.275)	-0.066 (0.229)	-0.588* (0.244)	-0.012 (0.235)	
Top Tier	-0.772*** (0.157)	-0.594*** (0.138)	-0.322* (0.157)	-0.725*** (0.141)	
Entrance Strategy (Center Exam)	0.135 (0.158)	0.196 (0.131)	0.305* (0.154)	0.197 (0.135)	
Self-Reported Study Hours					
Between 5 and 10 hours	-0.096 (0.271)	-0.214 (0.226)	-0.285 (0.244)	-0.042 (0.229)	
Between 10 and 15 hours	0.216 (0.308)	0.450+ (0.253)	0.256 (0.289)	0.203 (0.255)	
Between 15 and 20 hours	0.319 (0.285)	0.330 (0.127)	0.085 (0.257)	0.263 (0.234)	
Between 20 and 25 hours	-0.067 (0.256)	0.362+ (0.219)	0.184 (0.247)	0.399+ (0.225)	
Between 25 and 30 hours	0.159 (0.273)	0.016 (0.226)	0.047 (0.256)	0.037 (0.231)	
More than 30 hours	-0.002 (0.225)	0.128 (0.190)	0.361+ (0.219)	0.335+ (0.196)	
Self-Reported Achievement	-0.078 (0.057)	-0.060 (0.048)	0.075 (0.054)	-0.002 (0.049)	
Belief in Effort Ideology	0.101+ (0.058)	0.204*** (0.050)	0.169** (0.055)	0.202*** (0.050)	
Respondent's Gender	0.308* (0.151)	0.083 (0.128)	0.086 (0.147)	0.337** (0.130)	
McFadden R ²	0.022	0.019	0.018	0.023	
Model Chi-Square	43.203***	55.518***	39.115***	62.573***	
<i>Element of Merit</i>	<i>Total</i>	<i>Challenge</i>	<i>Appropriateness</i>	<i>Equality</i>	<i>Usefulness</i>
<i>N</i>	1197.32	982.13	977.25	976.80	979.45

Note. † p < .10; * p < .05; ** p < .01; *** p < .001 (Two-tailed test)

Table 13. Ordinal Logistic Regression: General Entrance Exam

	Model 1 (Cha)	Model 2 (App)	Model 3 (Eq)	Model 4 (Use)	
Threshold 1	-1.790** (0.584)	-2.060*** (0.429)	-2.080*** (0.463)	-0.793† (0.427)	
Threshold 2	-1.437* (0.578)	-1.235** (0.421)	-1.466*** (0.454)	0.021 (0.422)	
Threshold 3	-0.898 (0.572)	-0.391 (0.419)	-0.373 (0.449)	1.015** (0.422)	
Threshold 4	-0.119 (0.569)	0.551 (0.419)	0.361 (0.449)	1.800*** (0.424)	
Family Assets	0.039 (0.039)	-0.018 (0.028)	-0.010 (0.030)	0.028 (0.028)	
Selectivity					
Low Tier	-0.344 (0.302)	-0.254 (0.233)	-0.511** (0.242)	0.147 (0.236)	
Top Tier	-0.124 (0.199)	-0.518*** (0.139)	-0.446** (0.148)	-0.577*** (0.139)	
Entrance Strategy (General Entrance Exam)	0.413* (0.197)	0.328* (0.141)	0.358** (0.149)	0.394** (0.139)	
Self-Reported Study Hours					
Between 5 and 10 hours	0.261 (0.329)	-0.141 (-0.233)	-0.196 (0.245)	-0.018 (0.231)	
Between 10 and 15 hours	0.525 (0.400)	0.360 (0.268)	0.066 (0.282)	0.202 (0.260)	
Between 15 and 20 hours	0.271 (0.342)	0.226 (0.241)	0.150 (0.260)	0.275 (0.238)	
Between 20 and 25 hours	0.101 (0.319)	0.297 (0.233)	-0.039 (0.244)	0.335 (0.230)	
Between 25 and 30 hours	-0.182 (0.319)	-0.153 (0.237)	-0.101 (0.255)	-0.084 (0.236)	
More than 30 hours	0.142 (0.297)	0.197 (0.213)	0.066 (0.229)	0.354† (0.212)	
Self-Reported Achievement	0.065 (0.068)	-0.064† (0.049)	0.031 (0.052)	0.049 (0.049)	
Belief in Effort Ideology	0.050 (0.071)	0.220*** (0.052)	0.179*** (0.054)	0.211*** (0.051)	
Respondent's Gender	0.490** (0.182)	-0.021 (0.134)	0.227 (0.141)	0.290* (0.131)	
McFadden R ²	0.017	0.018	0.017	0.022	
Model Chi-Square	22.746*	47.635***	37.311**	60.131**	
<i>Element of Merit</i>	<i>Total</i>	<i>Challenge</i>	<i>Appropriateness</i>	<i>Equality</i>	<i>Usefulness</i>
<i>N</i>	1197.32	985.18	981.55	980.46	982.38

Note. † p < .10; * p < .05; ** p < .01; *** p < .001 (Two-tailed test)

Table 14. Ordinal Logistic Regression: Non-internal Recommendation Procedures

	Model 1 (Cha)	Model 2 (App)	Model 3 (Eq)	Model 4 (Use)	
Threshold 1	-2.727*** (0.407)	-0.942* (0.404)	-0.925* (0.405)	-1.560*** (0.404)	
Threshold 2	-1.631*** (0.399)	0.025 (0.402)	0.047 (0.402)	-0.675† (0.400)	
Threshold 3	-0.396 (0.395)	1.540*** (0.405)	1.648*** (0.406)	0.690† (0.400)	
Threshold 4	0.706† (0.396)	2.779*** (0.412)	2.576*** (0.412)	1.650*** (0.404)	
Family Assets	0.017 (0.027)	0.034 (0.027)	0.033 (0.027)	0.012 (0.027)	
Selectivity					
Low Tier	-0.275 (0.227)	-0.075 (0.228)	-0.011 (0.228)	-0.220 (0.227)	
Top Tier	0.223 (0.136)	-0.130 (0.136)	-0.036 (0.137)	-0.415** (0.136)	
Entrance Strategy (Non-internal Rec.)	0.364* (0.151)	0.714*** (0.153)	0.430** (0.152)	0.383* (0.151)	
Self-Reported Study Hours					
Between 5 and 10 hours	0.153 (0.224)	-0.029 (0.226)	0.003 (0.226)	0.129 (0.224)	
Between 10 and 15 hours	-0.063 (0.250)	0.102 (0.249)	-0.199 (0.250)	0.041 (0.249)	
Between 15 and 20 hours	-0.225 (0.226)	-0.009 (0.226)	0.060 (0.228)	-0.105 (0.226)	
Between 20 and 25 hours	-0.243 (0.216)	-0.105 (0.216)	-0.029 (0.216)	-0.262 (0.215)	
Between 25 and 30 hours	-0.195 (0.224)	-0.260 (0.225)	-0.172 (0.226)	-0.041 (0.224)	
More than 30 hours	-0.104 (0.190)	-0.437* (0.190)	-0.390* (0.191)	-0.069 (0.189)	
Self-Reported Achievement	-0.144** (0.048)	-0.038 (0.048)	-0.042 (0.048)	-0.008 (0.048)	
Belief in Effort Ideology	-0.080 (0.049)	0.122* (0.050)	0.120* (0.050)	0.046 (0.049)	
Respondent's Gender	0.174 (0.127)	0.258* (0.128)	0.140 (0.128)	0.158 (0.127)	
McFadden R ²	0.009	0.020	0.011	0.009	
Model Chi-Square	26.233*	58.708***	33.024**	25.916**	
<i>Element of Merit</i>	<i>Total</i>	<i>Challenge</i>	<i>Appropriateness</i>	<i>Equality</i>	<i>Usefulness</i>
<i>N</i>	1197.32	967.68	964.68	967.53	966.33

Note. † p < .10; * p < .05; ** p < .01; *** p < .001 (Two-tailed test)

Table 15. Ordinal Logistic Regression: Internal Recommendation Procedures

	Model 1 (Cha)	Model 2 (App)	Model 3 (Eq)	Model 4 (Use)
Threshold 1	-1.481*** (0.398)	-0.692† (0.405)	-0.547 (0.407)	-1.257** (0.405)
Threshold 2	-0.486 (0.395)	0.323 (0.404)	0.367 (0.406)	-0.403 (0.403)
Threshold 3	0.781* (0.395)	1.892*** (0.409)	2.029*** (0.412)	1.001** (0.404)
Threshold 4	1.678*** (0.399)	2.987*** (0.418)	2.818*** (0.417)	1.838*** (0.407)
Family Assets	0.053* (0.027)	0.037 (0.027)	0.019 (0.027)	0.033 (0.027)
Selectivity				
Low Tier	-0.062 (0.229)	0.249 (0.231)	0.292 (0.231)	0.086 (0.230)
Top Tier	-0.002 (0.138)	-0.330* (0.140)	-0.012 (0.140)	-0.638*** (0.140)
Internal Promotion	0.116 (0.139)	-0.067 (0.141)	0.483** (0.142)	0.191 (0.140)
Entrance Strategy (Internal Rec.)	0.466* (0.218)	0.610** (0.221)	0.399† (0.219)	0.506* (0.218)
Self-Reported Study Hours				
Between 5 and 10 hours	-0.096 (0.222)	-0.137 (0.226)	-0.197 (0.225)	-0.035 (0.224)
Between 10 and 15 hours	-0.321 (0.247)	0.225 (0.248)	-0.330 (0.250)	0.118 (0.247)
Between 15 and 20 hours	-0.613** (0.226)	-0.246 (0.227)	-0.025 (0.228)	-0.245 (0.226)
Between 20 and 25 hours	-0.183 (0.215)	-0.187 (0.217)	-0.137 (0.217)	-0.156 (0.216)
Between 25 and 30 hours	-0.381+ (0.223)	-0.352 (0.226)	-0.451* (0.227)	-0.277 (0.225)
More than 30 hours	-0.307 (0.190)	-0.469* (0.192)	-0.320+ (0.193)	-0.194 (0.191)
Self-Reported Achievement	-0.180*** (0.047)	-0.132** (0.048)	-0.020 (0.047)	-0.115* (0.047)
Belief in Effort Ideology	0.006 (0.049)	0.142** (0.050)	0.121* (0.050)	0.030 (0.049)
Respondent's Gender	0.166 (0.128)	0.319* (0.130)	0.259* (0.130)	0.223† (0.129)
McFadden R ²	0.013	0.023	0.017	0.017
Model Chi-Square	41.153***	67.101***	48.595***	50.366**

<i>Element of Merit</i>	<i>Total</i>	<i>Challenge</i>	<i>Appropriateness</i>	<i>Equality</i>	<i>Usefulness</i>
<i>N</i>	1197.32	971.97	967.82	970.03	968.82

Note. † $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$ (Two-tailed test)

Table 16. Ordinal Logistic Regression: Special Admission Procedures

	Model 1 (Cha)	Model 2 (App)	Model 3 (Eq)	Model 4 (Use)	
Threshold 1		-1.712*** (0.412)	-0.940* (0.411)	-1.501*** (0.410)	
Threshold 2		-0.724+ (0.408)	-0.061 (0.410)	-0.628 (0.405)	
Threshold 3		1.067** (0.408)	1.752*** (0.414)	1.062** (0.406)	
Threshold 4		2.290*** (0.415)	2.493*** (0.419)	1.959*** (0.410)	
Family Assets		-0.013 (0.028)	-0.005 (0.028)	0.042 (0.027)	
Selectivity					
Low Tier		0.185 (0.231)	0.235 (0.230)	-0.164 (0.228)	
Top Tier		-0.093 (0.139)	-0.031 (0.140)	-0.018 (0.140)	
Entrance Strategy (SA)		0.544 (0.409)	0.146 (0.410)	0.485 (0.408)	
Self-Reported Study Hours					
Between 5 and 10 hours		-0.005 (0.230)	-0.038 (0.228)	0.095 (0.226)	
Between 10 and 15 hours		-0.075 (0.253)	-0.358 (0.254)	-0.065 (0.253)	
Between 15 and 20 hours		0.097 (0.232)	0.198 (0.233)	-0.069 (0.230)	
Between 20 and 25 hours		0.155 (0.220)	0.161 (0.221)	-0.226 (0.220)	
Between 25 and 30 hours		-0.712** (0.228)	-0.384+ (0.229)	-0.627** (0.226)	
More than 30 hours		-0.158 (0.191)	-0.407* (0.192)	-0.452* (0.190)	
Self-Reported Achievement		0.001 (0.048)	-0.028 (0.048)	0.004 (0.048)	
Belief in Effort Ideology		0.133** (0.051)	0.190*** (0.051)	0.051 (0.050)	
Respondent's Gender		0.029 (0.130)	0.059 (0.130)	0.036 (0.129)	
McFadden R ²	0.005	0.010	0.013	0.008	
Model Chi-Square	15.505	28.503**	36.424**	22.116+	
<i>Element of Merit</i>	<i>Total</i>	<i>Challenge</i>	<i>Appropriateness</i>	<i>Equality</i>	<i>Usefulness</i>
<i>N</i>	1197.32	959.36	959.30	953.36	959.50

Note. † p < .10; * p < .05; ** p < .01; *** p < .001 (Two-tailed test)

Table 17. Ordinal Logistic Regression: Admission Offices Procedures

	Model 1 (Cha)	Model 2 (App)	Model 3 (Eq)	Model 4 (Use)	
Threshold 1	-2.409*** (0.410)	-1.238** (0.407)	-0.630 (0.410)	-1.263** (0.410)	
Threshold 2	-1.204** (0.401)	-0.315 (0.405)	0.458 (0.409)	-0.387 (0.406)	
Threshold 3	0.064 (0.399)	1.062** (0.406)	2.186*** (0.415)	0.822* (0.406)	
Threshold 4	1.078** (0.400)	2.088*** (0.410)	2.954*** (0.420)	1.870*** (0.410)	
Family Assets	0.007 (0.027)	0.004 (0.027)	0.052+ (0.027)	0.048+ (0.027)	
Selectivity					
Low Tier	0.011 (0.227)	0.097 (0.228)	0.271 (0.230)	-0.127 (0.226)	
Top Tier	0.233+ (0.136)	0.006 (0.964)	-0.343* (0.137)	-0.115 (0.135)	
Entrance Strategy (AO)	0.570** (0.183)	0.867*** (0.184)	0.358+ (0.183)	0.741*** (0.184)	
Self-Reported Study Hours					
Between 5 and 10 hours	0.143 (0.225)	-0.037 (0.227)	-0.229 (0.228)	0.192 (0.226)	
Between 10 and 15 hours	0.043 (0.251)	-0.124 (0.250)	-0.376 (0.254)	-0.034 (0.250)	
Between 15 and 20 hours	-0.103 (0.229)	0.064 (0.229)	0.119 (0.232)	0.069 (0.229)	
Between 20 and 25 hours	0.052 (0.219)	-0.113 (0.220)	-0.036 (0.222)	-0.143 (0.219)	
Between 25 and 30 hours	-0.207 (0.230)	-0.196 (0.228)	-0.014 (0.231)	-0.387+ (0.227)	
More than 30 hours	-0.098 (0.193)	-0.427* (0.194)	-0.574** (0.197)	-0.097 (0.193)	
Self-Reported Achievement	-0.047 (0.048)	-0.043 (0.048)	-0.030 (0.048)	0.054 (0.047)	
Belief in Effort Ideology	-0.063 (0.050)	0.103* (0.050)	0.154** (0.051)	-0.029 (0.050)	
Respondent's Gender	0.194 (0.128)	0.355** (0.128)	0.286* (0.129)	0.168 (0.127)	
McFadden R ²	0.008	0.023	0.024	0.011	
Model Chi-Square	25.171*	69.364**	69.815**	34.151**	
<i>Element of Merit</i>	<i>Total</i>	<i>Challenge</i>	<i>Appropriateness</i>	<i>Equality</i>	<i>Usefulness</i>
<i>N</i>	1197.32	964.67	963.19	964.77	967.56

Note. † p < .10; * p < .05; ** p < .01; *** p < .001 (Two-tailed test)

A. Independent Variable: Family Assets (Proxy for Economic Capital)

The challenge perception of internal recommendation procedures was the only dependent variable to be statistically, significantly affected by economic capital at the .05 level. The other dependent variables did not provide any statistically significant results at the .05 level. Table 18 presents the various coefficients for the “Family Assets” variable from the 24 ordinal logistic regressions.

Table 18. Coefficients for the Independent Variable “Family Assets” (Proxy for Economic capital)

Exam Orientation	Constituent Elements of Merit			
	Cha	App	Eq	Use
Achievement-Oriented				
Center Exam	-----	-----	-----	-----
General Entrance Exam	-----	-----	-----	-----
Non-Internal Recommendation	-----	-----	-----	-----
Internal Recommendation	0.053*	-----	-----	-----
Uniqueness-Oriented				
Special Admission Procedures	-----	-----	-----	-----
Admission Offices Procedures	-----	-----	0.052†	0.048†

Note. Cha = Challenge; App = Appropriateness; Eq = Equality; Use = Usefulness. “-----” indicates no statistically, significant result was found. Source: created by author.

† $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$ (Two-tailed test)

More precisely, family assets (proxy for economic capital) has a positive, statistically significant effect on the challenge perception of internal recommendation procedures, meaning respondents whose families enjoy a high level of economic capital tend to be more supportive of the idea of the internal recommendation procedures as an entrance procedure which requires a great deal of effort for success to be achieved.

B. Independent Variable: Selectivity

At the .05 level, the high school's "Selectivity" variable systematically negatively affected the various constituent elements of merit for all exams (except special admissions). It implies high and low tier high school students reacted more negatively to the constituent elements of merit in various situations. Table 19 presents the various coefficients for the "Selectivity" variable from the 24 ordinal logistic regressions.

Table 19. Coefficients for the Independent "Selectivity" Variable

Exam Orientation	Constituent Elements of Merit			
	Cha	App	Eq	Use
Achievement-Oriented				
Center Exam	-0.772 (High)***	-0.594 (High)***	-0.322 (High)* -0.588 (Low)*	-0.725 (High)***
General Entrance Exam	-----	-0.518 (High)***	-0.446 (High)** -0.511 (Low)**	-0.577 (High)***
Non-Internal Recommendation	-----	-----	-----	-0.415 (High)**
Internal Recommendation	-----	-0.330 (High)*	-----	-0.638 (High)***
Uniqueness-Oriented				
Special Admission Procedures	-----	-----	-----	-----
Admission Offices Procedures	0.233† (High)	-----	-0.343 (High)*	-----

Note. Cha = Challenge; App = Appropriateness; Eq = Equality; Use = Usefulness. "-----" indicates no statistically significant result was found. Indications between parenthesis refer to the high school selectivity tiers: High = High selectivity tiers; Low = Low selectivity tiers. Source: created by author.

† p < .10; * p < .05; ** p < .01; *** p < .001 (Two-tailed test)

i. Center Exam

The selectivity of the high school and specifically if the school is from the high tier of the hierarchy (*hensachi* ranging from 61 to 70) had a negative, statistically significant effect on:

- the perception of the Center Exam as an exam that does not require considerable effort for success to be achieved;

- the perception of the Center Exam as an inappropriate entrance procedure to accurately recognize individual ability;
- the perception of the Center Exam as an entrance procedure that does not guarantee equality between applicants and,
- the perception that the knowledge required for the Center Exam preparation will not be useful after the procedure has been completed (successfully or not).

Furthermore, the selectivity of the high school and specifically if the school is from the low tier of the hierarchy (*hensachi* ranging from 40 to 50) had a negative, statistically significant effect on the perception of the Center Exam as an entrance procedure guaranteeing equality between applicants.

ii. General Entrance Exam

The selectivity of the high school and specifically if the school is from the high tier of the hierarchy (*hensachi* ranging from 61 to 70) had a negative, statistically significant effect on:

- the perception that the general entrance exam is an inappropriate entrance procedure to accurately recognize individual ability;
- the perception that the general entrance exam is an entrance procedure not guaranteeing equality between applicants and,
- the perception that the knowledge required for the general entrance exam preparation will not be useful after the procedure has been completed (successfully or not).

Furthermore, the selectivity of the high school and specifically if the school is from the low tier of the hierarchy (*hensachi* ranging from 40 to 50) had a negative, statistically significant effect on the perception of the general entrance exam as an entrance procedure that guarantees equality between applicants.

iii. Non-Internal Recommendation Procedures

The hierarchical position of the high school and specifically if the school is from the higher tier of the hierarchy (*hensachi* ranging from 61 to 70) had a negative, statistically significant effect on the perception of the usefulness of the knowledge required.

iv. Internal Recommendation Procedures

The hierarchical position of the high school and specifically if the school is from the top tier of the hierarchy (*hensachi* ranging from 61 to 70) had a negative, statistically significant effect on:

- the perception that internal recommendation procedures are an inappropriate entrance procedure to accurately recognize individual ability.
- the perception that the knowledge required for the internal recommendation procedure preparation will not be useful after the procedure has been completed (successfully or not).

v. AO

The hierarchical position of the high school and specifically if the school is from the top tier of the hierarchy (*hensachi* ranging from 61 to 70) had a negative, statistically significant effect on the perception of the Admission Offices procedures as an entrance procedure not guaranteeing equality between applicants.

C. Independent Variable: Internal Promotion

The “internal promotion” variable had a positive, statistically significant effect on the internal recommendation procedures’ equality perception. This means that respondents from high schools where internal recommendation procedures are an available option to enter university, tend to be more supportive (than their peers from high schools where such option does not exist) of the perception of the internal recommendation procedure as an entrance procedure that guarantees equality between applicants (see Table 20).

Table 20. Coefficients for the Independent Variable “Internal Promotion”

Exam Orientation	Constituent Elements of Merit			
	Cha	App	Eq	Use
Achievement-Oriented				
Internal Recommendation	-----	-----	0.483**	-----

Note. Cha = Challenge; App = Appropriateness; Eq = Equality; Use = Usefulness. “-----” indicates no statistically, significant result was found. Source: created by author.

† p < .10; * p < .05; ** p < .01; *** p < .001 (Two-tailed test)

D. Independent Variable: Entrance Strategy

Excepting all constituent elements of merit for the Center Exam (other than the equality element), special admissions, and Equality element for AO and internal recommendation procedures, all aspects of merit were positive and significantly affected by the respondents’ exam choices to access his or her first-choice university at the .05 level. Table 21 presents the various coefficients for the variable “Target relevant entrance exam” from the 24 ordinal logistic regressions.

Table 21. Coefficients for the Independent Variable “Entrance Strategy”

Exam Orientation	Constituent Elements of Merit			
	Cha	App	Eq	Use
Achievement-Oriented				
Center Exam	-----	-----	0.305*	-----
General Entrance Exam	0.413*	0.328*	0.358**	0.394**
Non-Internal Recommendation	0.364*	0.714***	0.430**	0.383*
Internal Recommendation	0.466*	0.610**	0.399†	0.506*
Uniqueness-Oriented				
Special Admission Procedures	-----	-----	-----	-----
Admission Offices Procedures	0.570**	0.867***	0.358†	0.741***

Note. Cha = Challenge; App = Appropriateness; Eq = Equality; Use = Usefulness. “-----” indicates no statistically significant result was found. Source: created by author.

† p < .10; * p < .05; ** p < .01; *** p < .001 (Two-tailed test)

More precisely, targeting the general entrance exam as an entrance procedure to access one’s first-choice university has a positive, statistically significant effect on the perception of the four constituent elements of merit. Specifically, respondents who indicated targeting the general entrance exam as an entrance procedure to access their first-choice university tended to be more supportive of:

- the idea that the general entrance exam is an exam that required considerable effort for success to be achieved;
- the idea that the general entrance exam is an appropriate entrance procedure to accurately recognize individual ability;
- the idea that the general entrance exam is an entrance procedure guaranteeing equality between applicants and,
- the idea that the knowledge required for the General entrance exam preparation will be useful after the procedure has been completed (successfully or not).

Similar results were found for the non-internal recommendation procedures. Internal recommendation procedures and AO also followed the same pattern except for the equality element, which was marginally significant at the .10 level.

E. Independent Variable: Self-Reported Study Hours

Because the “self-reported study hours” variable was treated as a dummy variable (fewer than five hours being the reference category) and presented various results in terms of statistical significance, it would have been more cumbersome to present each result separately. Observable trends nevertheless emerged from the data (see Table 22). “Self-reported study hours” and standardized written tests (general entrance exam and Center Exam) constituent elements of merit presented positive associations (the equality element of the Center Exam was statistically significant at the .05 level). Phrased differently, the number of hours respondents devoted to studying outside of school had a positive, statistically significant effect on the idea of the Center Exam as an entrance procedure guaranteeing equality between applicants when respondents indicated studying more than 30 hours outside of school. Internal and non-internal recommendation procedures, special admissions and AO procedures systematically presented negative associations with study hours.

Table 22. Coefficients for the Independent Variable “Self-Reported Study Hours”

Exam Orientation	Constituent Elements of Merit			
	Cha	App	Eq	Use
Achievement-Oriented				
Center Exam	-----	0.450 (10-15)†	0.361 (30+)*	0.399 (20-25)†
		0.362 (20-25)†		0.335 (30+)†
General Entrance Exam	-----	-----	-----	0.354 (30+)†
Non-Internal Recommendation		-0.437 (30+)*	-0.390 (30+)*	-----
Internal Recommendation	-0.613 (15-20)**	-0.469 (30+)*	-0.451 (25-30)*	-----
	-0.381 (25-30)†		-0.320 (30+)†	
Uniqueness-Oriented				
Special Admission Procedures	-----	-0.712 (25-30)***	-0.384 (25-30)†	-0.627 (25-30)**
			-0.407 (30+)*	-0.452 (30+)*
Admission Offices Procedures	-----	-0.427 (30+)**	-0.574 (30+)**	-0.387 (25-30)†

Note. Cha = Challenge; App = Appropriateness; Eq = Equality; Use = Usefulness. “-----” indicates no statistically significant result was found. Numbers between parenthesis indicate the response category: 5-10 = 5 to 10 hours; 10-15 = 10 to 15 hours; 15-20 = 15 to 20 hours; 20-25 = 20 to 25 hours; 25-30 = 25 to 30 hours; 30+ = More than 30 hours. Source: created by author.

† p < .10; * p < .05; ** p < .01; *** p < .001 (Two-tailed test)

i. Center Exam

Respondents’ number of hours devoted to study outside of school has a positive, statistically significant effect on the idea of the Center Exam as an entrance procedure guaranteeing equality between applicants when respondents indicated studying more than 30 hours outside of school.

ii. Non-Internal Recommendation Procedures

Respondents' number of hours devoted to study outside of school has a negative, statistically significant effect on the perception of the non-internal recommendation procedures as:

- an inappropriate entrance procedure to accurately recognize individual ability when respondents indicated studying more than 30 hours outside of school per week.
- an entrance procedure not guaranteeing equality between applicants when respondents indicated studying more than 30 hours outside of school per week.

iii. Internal Recommendation Procedures

Respondents' number of hours devoted to study outside of school has a negative, statistically significant effect on the idea of the internal recommendation procedures as:

- an entrance procedure not requiring a great deal of effort to succeed when respondents indicated studying between 15 and 20 hours outside of school per week.
- an inappropriate entrance procedure to accurately recognize individual ability when respondents indicated studying more than 30 hours outside of school per week.
- an entrance procedure not guaranteeing equality between applicants when respondents indicated studying between 25 and 30 hours outside of school per week.

iv. Special Admission Procedures

Respondents' number of hours devoted to study outside of school has a negative, statistically significant effect on the idea of the special Admission procedures as:

- an inappropriate entrance procedure to accurately recognize individual ability when respondents indicated studying between 25 to 30 hours outside of school per week.

- as an entrance procedure not guaranteeing equality between applicants when respondents indicated studying between more than 30 hours outside of school per week.
- an entrance procedure which knowledge gathered for the preparation of the exam cannot be useful after the exam was taken when respondents indicated studying between 25 to 30 hours and more than 30 hours outside of school per week.

v. AO

Respondents' number of hours devoted to study outside of school has a negative, statistically significant effect on the idea of the Admission Offices procedures as:

- an inappropriate entrance procedure to accurately recognize individual ability when respondents indicated studying more than 30 hours outside of school per week.
- an entrance procedure not guaranteeing equality between applicants when respondents indicated studying more than 30 hours outside of school per week.

F. Independent Variable: Self-Reported Achievement

The independent variable "self-reported achievement" had a negative, statistically significant effect (at the .05 level) only on certain constituent elements of merit for the internal and non-internal recommendation procedures. Table 23 presents the various coefficients for the variable "Self-Reported Achievement" from the 24 ordinal logistic regressions

Table 23. Coefficients for the Independent Variable “Self-Reported Achievement”

Exam Orientation	Constituent Elements of Merit			
	Cha	App	Eq	Use
Achievement-Oriented				
Center Exam	-----	-----	-----	-----
General Entrance Exam	-----	-0.064†	-----	-----
Non-Internal Recommendation	-0.144***	-----	-----	-----
Internal Recommendation	-0.180***	-0.132**	-----	-0.115*
Uniqueness-Oriented				
Special Admission Procedures	-----	-----	-----	-----
Admission Offices Procedures	-----	-----	-----	-----

Note. Cha = Challenge; App = Appropriateness; Eq = Equality; Use = Usefulness. “-----” indicates no statistically significant result was found. Source: created by author.

† p < .10; * p < .05; ** p < .01; *** p < .001 (Two-tailed test)

More specifically, self-reported achievement had a negative, statistically significant effect on non-internal recommendation procedures’ challenge perception, meaning respondents who ranked themselves highly tended to be less supportive of the idea of the non-internal recommendation procedures as an entrance procedures requiring a great deal of effort to succeed.

Regarding internal recommendation procedures, self-reported achievement had a negative, statistically significant effect on:

- the challenge perception, meaning respondents who ranked themselves highly tend to be less supportive of the idea of the internal recommendation procedures as an entrance procedure requiring a great deal of effort to succeed.
- the appropriate measurement perception, meaning respondents who ranked themselves highly tend to be less supportive of the idea of the internal recommendation procedures as an appropriate entrance procedure to accurately recognize individual ability.
- the useful knowledge perception, meaning respondents who ranked themselves highly tend to be less supportive of the idea that the knowledge required for internal recommendation procedures preparation will be useful after the procedure has been completed (successfully or not).

G. Independent Variable: Belief in Effort Ideology

Respondents' belief in effort ideology always had a positive effect on constituent elements of merit at the .05 level of statistical significance. Table 24 presents the various coefficients for the variable "Belief in Effort Ideology" from the 24 ordinal logistic regressions.

Table 24. Coefficients for the Independent Variable "Belief in Effort Ideology"

Exam Orientation	Constituent Elements of Merit			
	Cha	App	Eq	Use
Achievement-Oriented				
Center Exam	0.101 [†]	0.204***	0.169**	0.202***
General Entrance Exam	-----	0.220***	0.179***	0.211***
Non-Internal Recommendation	-----	0.122*	0.120*	-----
Internal Recommendation	-----	0.142**	0.121*	-----
Uniqueness-Oriented				
Special Admission Procedures	-----	0.133**	0.190***	-----
Admission Offices Procedures	-----	0.103*	0.154**	-----

Note. Cha = Challenge; App = Appropriateness; Eq = Equality; Use = Usefulness. "-----" indicates no statistically significant result was found. Source: created by author.

[†] p < .10; * p < .05; ** p < .01; *** p < .001 (Two-tailed test)

Based on the results, respondents' degree of support of the effort ideology had a positive, statistically significant effect on:

- their perception that all exams are appropriate entrance procedures to accurately recognize individual ability.
- their degree of support of the idea that all entrance procedures guarantee equality between applicants.
- their perception of the usefulness of the knowledge required for the Center Exam and the general entrance exam preparation.

H. Independent Variable: Respondent's Gender (Male as Reference Category)

Respondents' Gender always had a positive effect on constituent elements of merit. This indicates that female respondents were always more supportive of the various constituent

elements of merit than their male counterparts. Table 25 presents the various coefficients for the variable “Respondent’s gender” from the 24 ordinal logistic regressions.

Table 25. Coefficients for the Independent Variable “Respondent’s Gender”

Exam Orientation	Constituent Elements of Merit			
	Cha	App	Eq	Use
Achievement-Oriented				
Center Exam	0.308*	-----	-----	0.337**
General Entrance Exam	0.490**	-----	-----	0.290*
Non-Internal Recommendation	-----	0.258*	-----	-----
Internal Recommendation	-----	0.319*	0.256*	0.223†
Uniqueness-Oriented				
Special Admission Procedures	-----	-----	-----	-----
Admission Offices Procedures	-----	0.355*	0.286*	-----

Note. Cha = Challenge; App = Appropriateness; Eq = Equality; Use = Usefulness. “-----” indicates no statistically, significant result was found. Source: created by author.

† p < .10; * p < .05; ** p < .01; *** p < .001 (Two-tailed test)

Based on the results, respondent’s gender had a positive, statistically significant effect on:

- their perception that the Center Exam and general entrance exam require a great deal of effort to succeed.
- their perception that the non-internal, internal recommendation procedures and AO are appropriate entrance procedures to accurately recognize individual ability.
- their degree of support of the idea that AO and internal recommendation procedures guarantee equality between applicants.
- their perception of the usefulness of the knowledge required for the center and the exam general entrance exam preparation.

III. Addressing the Hypotheses

A. Hypothesis 1: Family Assets (Proxy for Economic Capital)

Results were statistically significant only for the challenge element and only in the case of internal recommendation procedures. This means that the higher the economic capital, the more students tended to view internal recommendation procedures as necessitating considerable effort to succeed. Nevertheless, the coefficient was rather low.

The hypothesis was ultimately not confirmed as no statistically significant results were found for the more customized forms of exams such as AO and special admissions procedures. In addition, only the challenge element of merit was involved.

B. Hypothesis 2: High School Selectivity Tier

Contrary to the hypothesis, achievement oriented forms of exams received criticism more often than uniqueness-oriented forms of exams from top tier respondents (in all four constituent elements of merit except that of challenge for the general entrance exam). Non-internal recommendation procedures on the usefulness element and, internal recommendation procedures on the appropriateness and usefulness elements presented negative and statistically significant results as well. This indicates that students from top tier high schools tend to be more critical of the achievement-oriented tests than their peers from middle tier high school (reference category).

Only AO of the equality element presented negative statistically significant results for the high tier high school respondents. As this was the only element presenting statistically significant results and given results found for the achievement-oriented forms of exams, the hypothesis was thus rejected.

C. Hypothesis 3: Availability of an Internal Promotion Option

The results were positive and statistically significant only for the perceived equality of treatment of candidates. This indicates that the students from high schools offering the internal recommendation procedure option were more supportive of the idea that the internal recommendation procedures guarantee equality of treatment of applicants. The hypothesis was thus partly confirmed as only statistically significant results were found for the equality principle.

D. Hypothesis 4: Entrance Strategy

The hypothesis was confirmed for the all four constituent elements of merit in the case of the general entrance exam and recommendation procedures. It was confirmed for three constituent elements of merit (challenge, appropriateness and usefulness) for internal recommendation procedures and AO. Only the equality element was confirmed for the Center Exam and no results were found for special admissions.

The idea of a psychological dimension of self-justification, which leads to more positive judgements of targeted exams as being driven by constituent elements of merit, was thus rather accurate.

E. Hypothesis 5: Self-Reported Study Hours

Coefficients for exams other than standardized written tests indicated strong negative relationships between the various indicators of merit and amount of study hours reported compared to the base category (less than 5 hours). The trend was particularly visible when students reported working more than 25 hours outside of class per week. This indicates that the more time students devote to studying, the less they tend to see more customized forms of exams as driven by constituent elements of merit. The hypothesis was thus verified except for the

challenge element and, usefulness element – in the case of AO. However, recommendation procedures, both internal and non-internal (in the case of appropriateness and equality elements), presented similar negative coefficients. This indicates that even with a certain degree of standardization, students reporting long hours of study still tend to consider recommendation procedures as not being driven by appropriateness and equality elements of merit.

F. Hypothesis 6: Self-Reported Achievement

Negative, statistical significance was only found in two types of exams: non-internal recommendation procedures (challenge element) and internal recommendation procedures (challenge, appropriateness and usefulness elements). This indicates that when considering these categories, students ranking themselves higher tended to perceive fewer bases for merit in these two forms of exams. The hypothesis was therefore partially confirmed as only recommendation procedures, both internal and non-internal, gave statistically significant results.

IV. Conclusion

When looking at descriptive statistics results, the four constituent elements of merit exhibited interesting patterns in respondents' perceptions of the diversification of university entrance selection procedures. As expected, standardized, one chance, written tests retained the highest share of perceived merit, indicating a large consensus on their legitimacy within J-mode meritocracy. However, the legitimacy of more customized forms of exams did not decrease while moving towards the "more customized" end of the continuum of procedural standardization. A first finding is therefore that despite being rooted in J-mode meritocracy principles, hence favoring more standardized forms of exams from the start, again, AO procedures, despite their high degree of customization, did not appear to be the least merit-based of selection procedures.

Comment analysis shed some light on this matter indicating that AO procedures, from the start, served to scan different applicant skills (see chapter 6). The question whether AO is relevant as a university entrance procedure or not divides the answers, with proponents of it emphasizing diversity of profiles and skills while opponents criticize the loss of academic level which result from this selection. It is worth noting however, that overall customized forms of exams, concerning fewer students, often display large indecision in answers.

A second visible finding is that entrance procedures do not seem to be considered by applicants as more merit-based on the basis of time itself: the assertion that the older an entrance procedure is, the more merit-based it is considered to be, was not true given the fact recommendation procedures, though introduced in 1967, did not appear more merit-based than AO procedures, quite the contrary. This poses a problem in terms of legitimacy understanding and acceptance: after 50 plus years of implementation, recommendation procedures still do not appear as a fully legitimate university entrance selection procedure. The comments analysis supported the partiality of teachers in the process, and their legitimacy as a screening entity appears questionable due to their subjectivity and understanding of the students. As this aspect is not present in AO procedures, one could wonder if students believe blind examiners are required as a part of the foundation for an exam's legitimacy. These results, in a sense, question teachers' capacities to fulfill their role as objective examiners.

Ordinal logistic regressions that were used to test hypotheses on what motivates students' perceptions, presented in the descriptive statistics parts, revealed that the different independent variables used were all statistically significant at various degrees. Few statistically significant results at the .05 level were found for the economic capital, self-reported achievement and presence of internal promotion options. On the contrary, other variables rendered significant results: entrance strategy, self-reported study hours, high school selectivity, belief in effort ideology and respondent's gender variables were found to be rather robust predictors of the

various elements of merit. The salient feature for the individual entrance strategy variable was a positive vision of the various exams when respondents planned to use them to access their first-choice university. The self-reported study time variable was characterized by a more positive vision of standardized written tests when respondents indicated studying for long hours (more than 30 hours) but particularly a negative vision of the other type of exams when respondents indicated studying for long hours (more than 25 hours). Regarding high school selectivity, top tier high school respondents were more negative about all six exam types (at the .05 level) than their peers from the middle tier. This trend was particularly visible with the standardized written tests. Low tier high school respondents produced less significant results but their critiques (negative compared to middle tier high school respondents) focused on the equality element for standardized written tests. The belief in effort ideology was a recurrent, though weak, predictor of equality perception for all exams and appropriateness perception for almost all exams but the center. Ultimately, the respondent's gender variable showed that girls tended to be more positive than boys on challenge and usefulness elements of standardized tests and on appropriateness and equality elements for more customized forms of exams.

Chapter 6: Qualitative Analysis

This chapter presents the perceptions of students and school personnel involved in the school process. Some methodological issues are also discussed at the beginning of the findings section. Findings are organized by type of exam and followed by a thematic analysis of the lived experience of students and school personnel that emerged from the data analysis.

I. Findings

Out of 1,447 questionnaires, 316 of them included comments. Numerical results obtained through text mining echo those obtained via Likert-scale measurement of the various elements of merit. Standardized written tests retain mainly positive comments (and the general entrance exam in particular). More customized forms of exams tended to create more confusion and orientate students' comments towards neutrality (non-internal recommendation procedures and AO) or negative comments (internal recommendation and special admissions procedures).

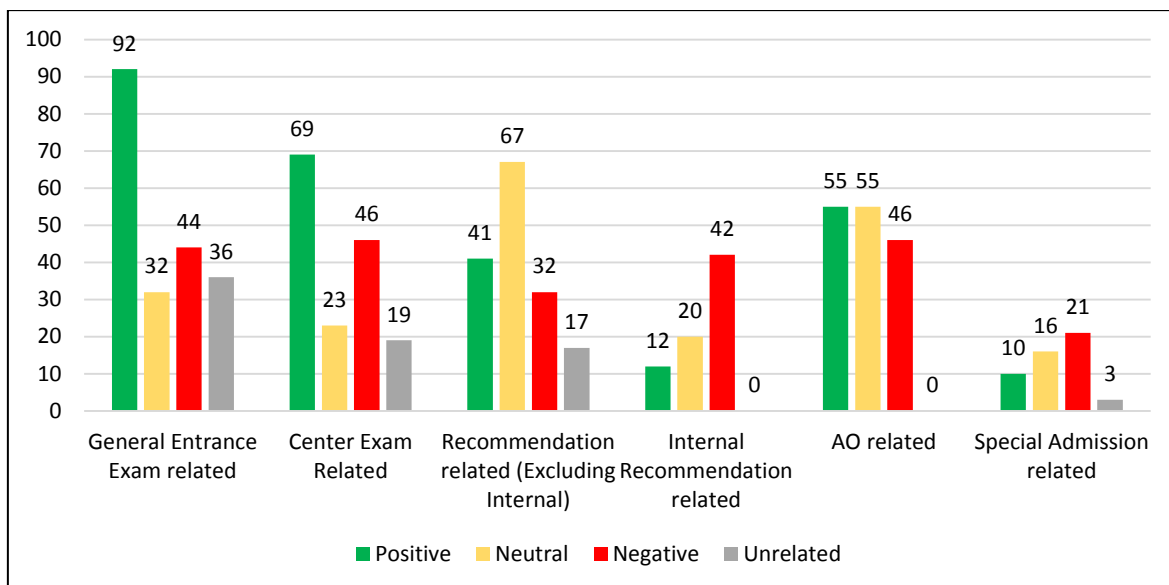


Figure 20. Comment Analysis of Students' Perceptions of Exam by Type. Green bars indicate positive comments, yellow bars indicate neutral comments, red bars indicate negative comments and grey bars indicate unrelated comments. Source: created by author.

Figure 20 indicates the number of occurrences per exam-related category, as well as the classification within a subcategory resulting from the comment tone analysis. It quickly appeared while proceeding through the comment analysis that students grouped certain examinations together in their explanations due to their similarities. Thus, test-by-test findings are organized based on these groupings.

Data presented in this chapter are grouped in the following way: standardized written tests (general entrance exam and Center Exam) and recommendation procedures (internal and non-internal recommendation procedures). These four exams alone were grouped together according to students' opinion of the various exams.

A. Test-by-Test Findings

i. Standardized Written Tests (Center and General)

In students' comments, standardized written tests were depicted as merit-based selection procedures, mainly because of their egalitarian nature, offering the same exam to all students without any consideration for the various backgrounds of candidates. They were also seen as objective and an accurate measure of an individual's effort and merit. This aspect was echoed in the interviews as students had less anxiety regarding the format of standardized written tests compared to essay writing. Moreover, the knowledge gathered for these exams was considered as basic knowledge, and thus useful. Memorizing huge quantities of facts, while fastidious, was depicted as fulfilling by interviewees. The absence of connection between these forms of exams and their high school allowed students to start the university entrance process afresh. Again, in the interviews some students mentioned that their grades were not the highest and that they were happy that these grades had no influence when taking standardized written tests. Students also mentioned during the interviews that standardized written tests preparation was more versatile and easily applicable to various universities, allowing them to take more standardized written tests without having to focus on the specifics of a given university (as opposed to the other forms of exams).

General disagreement was usually rooted in the reductive scope of the standardized written tests: one form of academic proficiency. Some interviewees mentioned how impersonal this form of exam was and felt something was lacking for a satisfactory selection (implying the necessity for the university to also look at who the candidates are). They were also seen as costly, making certain students feel badly about taking too many exams. The fact these exams were also administered only once per year, time-based (students reported having to answer a large number of questions within a limited amount of time) and luck reliant (the vast body of knowledge implying certain areas are more mastered than others) tended to result in negative views of these

exams. Adding their right or wrong format to this list pushed students to imply standardized written tests were very stressful examinations.

Certain students, who were unable to choose an answer, also mentioned that these forms of examinations were convenient to deal with numerous applicants. They reported, in both comments and interviews, that they were aware of the imperfections of the system (particularly as regards the emphasis on the right or wrong answer format) but also of the general context of the selection to enter to university and the difficulties to deal with large number of applicants. Interviewees nevertheless felt that skills such as critical thinking were absent from these forms of exams, though crucial for university study life, and pointed out that it was a problem to put critical thinking aside while screening applicants.

ii. Recommendation Procedures (Internal and Non-Internal)

Recommendation procedures were presented as merit-based selection procedures in their ability to measure effort in the long run, implying a holistic approach to merit. What is more, as they also generally require an interview part, the preparation for this interview was deemed useful for the future as well (students often mentioned that job hunt requires many interviews). Interviewees mentioned how recommendation procedures could be both stressful and rewarding in terms of sustained effort as they took into account several years of work. This was confirmed by the teachers who stressed the importance of regular effort in order to receive a recommendation.

The factors that tended to explain the lack of support for the recommendation procedures as being merit-based almost systematically implied the lack of trust in the teachers' judgement to decide who receives a recommendation and who does not. Furthermore, students often mentioned the criteria for recommendation attribution were often ambiguous and lacked clear explanations. Again, some students mentioned that recommendations did not appear to

have very high standards and some of the prerequisites were sometimes seen as unfair. This low standard aspect was also found in AO when a school official explained why they did not want their students to know about other forms of exams apart from standardized written tests. Their desire was to keep students focused on exam preparation and any sort of distraction (through the use of more customized forms of exams) was unwelcome. Lastly, as recommendation procedure results are announced early in the year, many students pointed out that students receiving a recommendation were sometimes no longer pressured to study, which could have effect working capacities once they enter the job market. Interviewees also pointed out the limited use of recommendation documents and their preparation: apart from grade reports, interviews and short essays tend to be specific to a particular school and therefore, not re-usable in another context.

A number of students pointed out that universities and high schools had very different standards. Consequently, it was difficult for them to have an opinion on the recommendation procedures, mentioning the existence of very demanding and not very demanding high schools.

iii. Special Admissions

Special admissions procedures were rarely mentioned in the comments. When they were mentioned, it was almost systematically negatively, indicating a certain lack of understanding of such entrance procedures. Very often, students summed up special admissions as being a selection based on students' English proficiency alone. Some students mentioned their lack of understanding as regards the relevance of English language proficiency for selection to university entrance.

iv. AO

AO procedures were portrayed as positive, which is very plausibly due to their inherently holistic nature and the fact that they assess various points (such as text-writing skills). An interviewee who was applying to university using AO emphasized the possibility to use her English skills to be selected. The early calendar results were also seen as less stressful for the rest of the year, which allows students to enjoy their remaining high school time. A school official mentioned that a higher number of girls use AO because of this very early calendar aspect and their preference to guarantee the next step in their studies, while boys seem to enjoy the gambling aspect of the standardized written tests: risky but sometimes more rewarding as the best universities tend to select only through standardized written tests.

The lack of support for AO procedures mainly came from students who felt that academic standards used in this recruitment process were lower than for any other examination (also perceived as such by one of the schools that refused to participate in the study). Several students also mentioned hearing about higher drop-out rates from AO entrants. Certain interviewees criticized the fact AO results are usually published early in the year and subsequently eliminate the stress for certain students, while others had to maintain their high level of preparation for standardized written tests.

Similar to the recommendation procedures, AO procedures appeared abstract in the definition of their selection standards. The subjective nature of the exam also led to students questioning whether or not the system was fair, though they knew such subjectivity was required for selection.

Table 26 summarizes the reasons given by students to explain their degree of support to each exam as merit-based selection instruments.

Table 26. Students' Rating Justification per Type of Examination and Degree of Support

<u>Type of Examination</u>	<u>Students' Reasons Explaining Their Degree of Support</u>
Standardized Written Tests (General and Center Exam)	(+) Egalitarian (same test for all). Measure effort accurately. No connection with high school. Objective. Basic knowledge useful. (-) Reduced to academic proficiency. One-time only. Costly (<i>juku</i> and exam fees). Stressful. Time-based (lots of simple questions in a limited amount of time). Luck-reliant. Right or wrong only. (/) Convenient for dealing with numerous applicants.
Recommendation Procedures (Non-Internal and Internal)	(+) Long term effort in high school. Interview requirements useful. Holistic (including effort). (-) Easy way up. Linked with teachers (authority recognized or not). Early Calendar = playing. Lower standards (academia, effort deployment capacity). Prerequisites = unfair. Costly. (/) Different high school standards. No specific information about requirements.
SA	(+) Difficult. (-) Limited to English proficiency. Access limited to certain people irrespective of their academic achievement. (/) NA.
AO	(+) Usefulness of text writing skills. Holistic nature (appeal of various aspects). Early calendar = Less stressful. (-) Post-entrance higher dropout rate. Lower academic standards (reduced to writing skills). Free pass. (/) No specific information about standards for AO (different from one university to another), Subjectivity.

Note. Source: created by author.

B. Thematic Analysis of Student and School Personnel Experiences

Several themes regularly came back throughout the qualitative data analysis. The following section presents the most central themes which emerged from the data.

i. Strategizing

The various high schools groups had a different analysis on how choice is made for selecting the university students will attempt to enter. High School D's group indicated that an important aspect is in the interest a student may have for a specific department before selecting the entrance exam. This implies a threat in the long run when choosing a university only based on the ranking or easy access.

Group D, R1: "You apply for a university just for the name and suffers, get to a department you have no interest for, study for four years but then don't get a job and end up wondering what was all this for."

Students' understanding of their strong points and using them to their advantage was seen as the best strategy for university choice. For example, one student mentioned – upon a teacher's recommendation – that she chose women's universities in order to reduce the competition at the entrance (female applications only implies fewer candidates). The students also pointed out the importance of applying to a university that matches their own level. One added the consideration of the various exam dates to avoid taking too many on the same day and consequently improving their success by avoiding fatigue. On the contrary, High school H interviewees mentioned that the choice of exam was made prior to the university choice unless an individual had set his or her hopes on a specific university.

Group H, R3: "Maybe, first choosing the general and then the school. In this order. I want to go there, okay, general. That's more pursuing to university using general, then picking which university."

Interviewees emphasized that the versatile aspect of the standardized written tests preparation offered more chances to enter university than a specific recommendation or AO path. Respondents from High School H were primarily concerned with entering university in general more than entering a specific one they would have chosen for the courses offered (as would have High School D's group). Hence, the general entrance exam was presented as offering more possibilities compared with the AO or recommendation (seen as very specific). Emphasis was placed on accessing universities without risking failure and spending too much time, effort and money.

One of the students in High School H group mentioned choosing AO for university entrance because of a specific school choice and personal strong points (English in her case). Because AO testing is specific to the individual, she saw it as advantageous compared with the

general entrance exam which required broader knowledge. She specified that she did essay writing and an interview.

Students mentioned that some general admissions exams were more difficult than others for them, such as those using short essays. In the case of High School D interviewees, they added that they preferred a multiple-choice question format, which they felt was less risky in terms of gaps between what they know and what they are asked to write about. One student mentioned that the grades she had at school did also not allow her to try for recommendation procedures, and subsequently pushed her towards having to choose an entrance exam which was not based on her high school performance.

The grouping operated by high schools based on one's targeted exam was also a mentioned. High Schools F and H pointed out that being grouped by sections choosing similar types of exams spared them from losing their motivation while some of their peers would receive their results earlier, choosing AO or recommendation procedures. High school F respondents indicated their section was usually exclusive in terms of exam choice: they were prepared to take the general entrance exam and could not take any other. They compared their case to the integrated study sections which use AO and recommendation procedures. This resulted in a certain frustration as they had to pursue their studies until the end, which generated rather low esteem as regards other sections. Students mentioned almost never talking to students from other sections.

The calendar was another recurring topic in the interviews, particularly when students tried to maximize their chances to enter a given university, even if it was not their first-choice. Choice of university varied depending on interviewees. The High School D group mentioned their high school required a letter of commitment in April to enhance their motivation to get into their first-choice university. One of the students in this group mentioned choosing her second and third choice universities in November. A student in High School H mentioned trying a recommendation

procedure and, as she received her results in November, she rethought her university entrance strategy as she failed to get her recommendation. Finally, respondents from High School D indicated that parental support was extremely important in the whole university entrance choice and application process, which was absent from High School H and F respondents' considerations. A school official mentioned that in his experience, girls tended to prefer AO and recommendation procedure pathways. He explained it by an earlier result in the calendar, which was a great relief for them while boys tended to have a certain taste for gambling on the general entrance exam results.

ii. Exam Perception

On the question of what the purpose of the exams is, High School D students answered they did not know much about what exams were intended to be designed for apart from selection. Nevertheless, they considered it in a pragmatic way, emphasizing the selection role and criteria that can be evaluated as objectively as possible within the constraints of the exam. This pragmatic aspect was echoed by High School F group while they reflected on what could be the best selection process while taking into account the means the university had to select (particularly in terms of time it has and number of applicants to choose from).

Universities' rhetoric on entrance exams' fairness was apparently convincing for High School D students. They recognized that the diverse forms of exams implied different criteria for evaluation, as well as the potential sacrifice for access equality.

Group D, R1: "Keeping it egalitarian, it's important, that's true but I think the best is to take exam that allows you to display your own ability. That's why it's difficult."

Nevertheless, they considered it to be in line with the exam and requirements from the university in recruiting applicants. High School D students mentioned that AO, as opposed to general entrance exam, was sometimes not in line with job market demands. The sustained effort

tested in the general entrance exam was often absent in the case of AO, particularly with the relatively early result announcements. They pointed out this aspect as an explanation for the difficulty for AO people to find job on the labor market.

On the contrary, High School F's group viewed the diverse entrance exams as unfair and easy access which required low academic standards. On a general level, students criticized the lack of individual interest in the general entrance exam but calendar and level disparities seemed to prevent them from supporting AO and recommendation procedures. However, valuing applicants' strong points was seen as negative and unfair. Interviews were depicted as grounds for lies and character self-invention.

Group F, R1: "Even if you have an interview, you will create a character. So this won't be the real you and this interview would be senseless."

The group struggled with their desire for more individual interest, potentially assessed through group discussion or a similar evaluation tool and their desire for equal treatment of everybody through the general entrance exam. Grading was seen as part of the problem of the process, often not being student-centered: the necessity to have grades usually prevented activities which develop critical thinking. Entrance exams were apparently no longer selection instruments but just administrative routines for university access.

High School H students were far less vindictive, mentioning that no current exam could be labelled as perfect. They emphasized that a mix of current general entrance exam and AO practices could be a good way to select applicants. High School H students also underscored that the general entrance exam was the most versatile form of exam, allowing them to avoid too much specialization for a particular university's entrance exam. AO was presented as specialized for a particular university, but one which offers more room to display individuality. The general entrance exam was also seen as enriching, in light of the knowledge gathered for its preparation.

Taking entrance exams was seen as beneficial in creating tertiary education level groups as they reduce disparities in the class and problems that would result from them in terms of class content. It was also socially enriching for the students as they were put with people who had similar concerns.

iii. Exam Content

Selection made through recommendation and AO always included essay writing. However, in one case, it was written in a 60 minute timed environment at a specific university, unlike other interviewees whose essays were written at home. All essay writings were also followed by interviews, which were centered on the students themselves and their motivations to enter this specific university.

In terms of content-related knowledge for the exams, High School H students indicated a gap between English as a subject and as a language in Japan. Their knowledge of English through exchange programs was of little use for written test but advantageous for listening assessments; e.g. everyday vocabulary was barely used. Nevertheless, extensive memorization of knowledge was seen as enriching, even though they recognized the absence of teaching on how to use this knowledge. High School D students also indicated differences between universities in terms of grade coefficients between the different subjects.

iv. Effort

Students never entirely adhered to the notion of effort (some consensus was found for the general entrance exam though), recognizing inborn abilities and parents' background (particularly their personal education) as creating differences between people. They however considered effort as being important in bettering themselves. Students also mentioned that the

amount of effort necessary varies depending on individuals. They were unconvinced by the ideology of effort, as exams do not measure the amount of effort produced. They stated that a certain level was fixed to pass the exam and that achieving it required different amounts of effort depending on individuals.

Students from High School H replaced the notion of effort to compete for access to university, mentioning the gap between this intense competition, and in some cases at preschool level, where parents forced everyone to finish first to avoid suffering a loss. In students' minds, this "all first" reduced individual competition mindsets, which is something deemed necessary to access higher education.

High School F students recognized the importance of effort but blamed its limitations to access university, as well as an over-emphasis on the effort = merit equation, as measured by the test results. They quoted the luck factor as being a barrier to validating the effort = merit equation.

v. Family Environment

The degree of understanding of parental support varied depending on high schools. High School D students mentioned the importance of parents in their personal education as a factor of broadening children's perspectives.

Group D, R4: "Extremely! I really think so. Like, for instance, if you started reading since when you were young, you end up reading naturally. Same, if your parents like sports, they will bring you along often and you'll do sport too. I'm positive it's important for parents to have some form of planning for your education."

They acknowledged parents' role in shaping children's future, emphasizing rigidity as sometimes a necessity. Similarly, the studying habit was also recognized as being linked to parents. In addition, students mentioned the importance of consulting parents when choosing universities and departments.

Meanwhile, High School H students perceived family environment as essentially a question of logistics (meals, moral support) but not linked to studies. For this, friends and classmates were a much more reliable source of support as they understood the situation better. Students also mentioned being the first generation in their family to go to university. Lastly, High School F students were apparently unable to reflect on how family could help them with entrance exams.

vi. Peer Environment

Entrance exams became a topic of conversation with the approach of the first results through recommendation and AO (around November for these groups). In this aspect, grouping done by the school, based on targeted forms of exams, was seen as beneficial to keep effort maintained as one school official pointed out. The reciprocal argument also worked when another school official pointed out the beneficial aspect, in terms of demotivation avoidance, of excluding students from certain forms of exams through different class repartition.

Moreover, as High School H group posited, peers provided a shared set of realities making them ideal interlocutors for topics related to the exam. Students mentioned being certain about their university admittance made the topic easier to talk about.

vii. Solutions to Known Entrance Exam Issues

Groups showed different levels of interest regarding what kind of solutions could be explored to deal with existing entrance exams problems. Critical thinking was seen as a desirable skill to be scanned by the entrance exams and thus multiple-choice questions created mixed feelings as they were a good way to assert a candidate's knowledge, but offered no room to show critical thinking skills. Students also mentioned the extreme aspects of each exam (general and

AO) and suggested a mix of the two which would appropriately scan critical thinking and ensure students' academic levels evaluation as well. Group discussions were seen as a potential effective scanning process, as they allow everybody to develop his or her thinking throughout the discussion. However, they also recognized the exam format constraints in limiting the use of too time-costly procedures for selection.

High School H pointed out that emphasis on grading and giving a numerical appreciation of an individual's performance was seen as a problem in allowing the development of critical thinking skills and how to express it. Positive thinking was also considered as lacking.

II. Conclusion

Students and school officials alike brought out many supplementary pieces to the puzzle of merit in a diversified entrance procedure system. It would seem, then, that quantitative data alone would have been insufficient to obtain a more detailed picture of merit. It indeed considerably nuanced certain aspects of the meritocracy that operates through the selection instruments for entrance to university in Japan. The various qualitative data sources described in this chapter served different purposes and were therefore, analyzed differently. While the comment analysis was to primarily follow an etic perspective and find supplementary explanations to answer the hypotheses, focus-group interviews and field notes injected an emic perspective and the discovery of new knowledge for further investigation of the topic. Nevertheless, I tried to present the data thematically to give the clearest possible picture, enriching each theme with the data from the three available sources.

Comment analysis revealed interesting patterns, in particular in the way students tended to view entrance exams, such as the general entrance exam and Center Exam, as standardized written tests or recommendation procedures (both internal and non-internal) on the basis of certain shared similarities. Standardized written tests, as such, were often seen as reductive in

their approach to merit but operating rather convincingly thinking about their purpose as university entrance selection instruments. Recommendation procedures, though not the most recent, were often described as unreliable due to the implication of the high school in the university selection entrance process. Students often mentioned being unconvinced of their high school's criteria for selection for recommendation. Recommendations were, however, seen as holistic and rewarding in terms of a long-run effort. AO's radically different approach to merit created confusion, particularly in regards to the standards for selection, but was also seen as a rather good and holistic way to measure merit. Students emphasized the room given to put forward their own merit and strong points. Paradoxically, it is the very same aspect of using one's strong points that often appeared as a negative aspect of AO, coupled with the doubts about students' academic standards. Finally, the lack of answers to and rather negative evaluations of special admissions resulted in a difficult appreciation of students' knowledge and perceptions of such procedures. It is very likely that, in the minds of many students, the small portion of applicants these procedures target are viewed as a simple English-speaking capacity test, hence, paling in comparison with the other examinations, in terms of requirements.

In terms of themes emerging from the data, a first finding was that high schools clearly operated various strategies depending on the student population regarding student counseling and tracking students. Tracking students was more than just grouping students together based on their targeted university entrance exams. Students reported how important it was for them to be with others who share similar objectives in order to maintain their effort. Looking at other sections created confusion and often students admitted that they did not know enough about the university entrance exams they were not targeting nor about the students who aimed to take different entrance exams. This lack of information seemed to result from tracking on the part of some schools which presumably depend on a school's philosophy.

Implications

Following a neo-institutionalist perspective, I would tend to interpret this tracking effort as more proof of the importance of institutions in shaping social actors' values. Another finding was the changes in schools' approaches to the notion of exams guaranteeing strict equality between candidates. Introduction of more customized forms of assessment was to be done using various standards which could not guarantee strict equality as with the standardized written exams. This aspect was seen as inherently logical, particularly in the case of the AO procedures where students use their own strong points. This was also corroborated by the mitigated support to effort ideology that students had: they recognized effort as important but not the only factor which explains success or failure to university entrance.

All in all, the various sources of qualitative data played a very important role in this study in confirming certain points to better understand perceptions of merit in the various university entrance exams; but also in the changes from Kariya's J-mode meritocracy concept of merit. In both teachers and students' narratives, tensions over how merit should be defined remained, as well as over the way it should be measured. It is clear, however, that there is a pragmatic lack of concern in students' minds. This, coupled with the different high schools' approaches to information dissemination, can quickly make an understanding of what is at stake with the different entrance exams, a challenge.

Chapter 7: Discussion

The diversification of university entrance procedures in Japan started in 1967 and is still happening as Japanese society continues to evolve, as the recently announced future introduction of the new Achievement Test shows. The introduction of new selection procedures has always been a reaction to changes, whether these were mainly demographic (such as the recommendation procedures, which were designed in reaction to the Baby boomers' generation access to university) or to socio-economics (such as the National Preliminary Scholastic Achievement Test and later on Center Exam or the AO to some extent, all of which act as refined tools for selection, though with different objectives). However, the introduction of these new selection procedures is not specific to Japan but follows a global trend where tertiary education institution selection procedures in developed countries are impacted by an increasing diversity of student profiles. A unique entrance exam nowadays possibly guarantees a strict equality of evaluation between candidates, but its format will never address the complexity and diversity of university candidates. If universities want to display a diverse student body, they will need to use a variety of selection procedures. The paradigm behind the development of university entrance exams around the world is thus no longer strict equality but equity. Higher education institutions have realized the extraordinary potential of diversity and the benefits that come from a diversified student body. A diverse student body can reflect the diversity within a given cohort of young people in the larger population more realistically, as well as provide a base for the synergistic development of new ideas diversity generates. Furthermore, displaying a diverse student body is beneficial for universities' images, emphasizing its openness to diversity.

But acquiring such a diversity of applicant profiles requires the implementation of a variety of university entrance procedures. This, however, brings with it a variety of challenges as the specific choices made to open more doors require careful design, laborious implementation and proactive explanation to the public.

In Japan, the introduction of new forms of exams have often generated criticism, particularly if they were lacking some form of standardization. Academic credentials are tremendous assets in the Japanese labor market, implying the importance of an egalitarian basis for selection (equality of opportunity and, traditionally, treatment of candidates – the same exam for all students). Two essential developments in the history of contemporary Japanese higher education have marked a shift from selection procedures based only on standardized forms of exams to the use of more customized forms of exams: recommendation procedures and AO procedures. Though they were introduced in response to different objectives, they have a clear connection with the *yutori* movement in Japan and its focus on alleviating students' stress by offering a chance to enter university through a less cramming-based approach. Their clear step away from J-mode meritocracy has divided the public over what is an appropriate basis for university entrance selection, and debates continue over whether these newer forms of selection are adequate. However, with their official introduction by the MEXT, these forms of exams have been institutionalized and have become valid gateways for access to university. They have spread throughout institutions across Japan over the years and non-standardized forms of exams now accommodate more than 50% of the private university entrants in Japan (MEXT, 2015d). Despite this dramatic change in selection criteria, there has been no change in the theoretical discourse on meritocracy and merit: those who succeed in the exams are still seen as the meriting students, no matter which gateway is used. Yet clearly a change must have occurred in the concept of merit itself, as the government has practically stepped aside from the traditional form J-Mode meritocracy where merit = effort, as measured by standardized written tests. If the School still serves as the selection entity for society, its instruments for carrying out this duty have changed

too. Merit remains the central notion which governs university entrance selection procedures and yet it is a fundamentally abstract notion. This is all the more true as the evaluation of candidates has come to rely more heavily on the subjectivity of evaluators, the inevitable result of customization. It is thus clear that merit, as it is known in the J-mode meritocracy paradigm, no longer equals effort but it now encompasses other forms of capacities that applicants are seen to have.

The first goal of this dissertation was to offer a way to conceptualize merit within Japanese meritocracy by looking at the mechanisms of J-mode meritocracy (Kariya, 2000). The idea was to start from what is recognized as meritocratic and conceptualize it so the framework can be used to assess the diverse forms of exams. Entrance examinations (standardized tests in particular) were seen as merit-based and consequently as legitimate because of the challenge they offer, the appropriate measurement of candidates they provide, the equality they guarantee and the useful knowledge they require. These four elements were defined as pivotal in ensuring the legitimacy of J-mode meritocracy's selection processes before 2000, the date of the introduction of Admission Offices procedures, which rely on a radically different approach to merit (Ohsaku, 2008). Using these four constituent elements of merit as the basis for measurement of how merit-based the various entrance exams were perceived to be, the next step was to measure the degree of support students exhibited towards the various entrance exams as meritocratic selection instruments.

Standardized written tests, as expected, retained the most legitimacy as meritocratic selection instruments. However, contrary to the expectation that the more customized an entrance exam is, the less meritocratic it appears, AO often appeared as more meritocratic than internal recommendation procedures in all four constituent elements of merit. Moreover, relative to non-internal recommendation procedures, AO appeared more appropriate to recognize individual abilities, and the knowledge applicants are seen to acquire in preparation for applying

to universities, more useful. A first finding of this dissertation was thus the current weakening of the link between the degree of an exam's standardization and its degree of recognition as a meritocratic selection instrument among private high school students.

Another finding was the high level of indecision students exhibited in their support for non-standardized exams. A first indecision could be explained by their pragmatic lack of concern towards these non-standardized forms of exams³². Indeed, if a given exam pathway is not among a respondent's options to enter university, it is rather plausible that he or she will not spend time forming opinions about its legitimacy. Another possible explanation could be that indecision reflects publicized debates over the more customized forms of exams, in which pros and cons are frequently aired (Nakamura, 2012; Tsuneyoshi, 2004), leaving students ultimately unable to reach a conclusion on whether they perceived such forms of exams as meritocratic or not.

A third finding was that the length of existence of a given university entrance exam's history was not linked to its degree of recognition as a meritocratic instrument of selection by high school students. As an example, taking the Center Exam (1979, revised in 1990) and AO procedures (2000), despite being historically introduced after the recommendation procedures (1967) started to be perceived as more meritocratic forms of exams. The time elapsed from inception and official use alone did not seem to be adequate bases to justify their legitimacy as meritocratic selection procedures.

This dissertation also looked at the factors that could be motivating such perceptions and found several elements which partially explain students' perceptions. Entrance strategy, self-reported study hours, high school selectivity and belief in effort variables appeared as to have statistically significant effects at the .05 level in several constituent elements of merit. The Entrance Strategy variable positively affected the perception of the various exams when

³² 18.5% of the respondents indicated targeting non-internal recommendation procedures to enter their first-choice university. They were 8.5% for internal recommendation procedures, 12.2% for AO and 1.9% for Special Admission procedures.

respondents planned to use them to access their first-choice university. This link indicates that the expectation of students' seeing their own individual choices in a more positive light was accurate and that students do appear biased when considering the various entrance exams if they are personally planning to use them. This finding confirms that self-integrity protection through self-affirmation is at work when students justify their choice of pursuing a particular exam, even when taking an anonymous survey. Given the coefficients obtained (see table 19), it is very likely that the more customized (hence vulnerable to criticism) an exam is, the more students feel it necessary to justify their choice to themselves, hence an ulterior dimension to their perceptions (Tesser, 2001). Indeed, as more customized forms of exams call for less equality between candidates and more subjectivity from the evaluators, the threat to their own legitimacy is more tangible when considering the egalitarian J-mode meritocracy ethic. Therefore, students shield themselves psychologically by supporting their own choices of exam as positive and meritocratic rather than adopting a cynical approach where they take the easiest one, even if they consider it to be irrelevant. In other words, if entrance exams are a rite of passage, passing them, whatever the exam choice, grants legitimacy for the sake of the student him or herself.

Another finding from the ordinal logistic regressions was the positive connection between self-reported study time and a respondent's degree of support for the standardized forms of exams, particularly when respondents indicated studying for long hours (more than 30 hours). A negative link was found for the other types of exams when respondents indicated studying for long hours (more than 25 hours). This corroborates the idea that effort requires long hours of cramming and that standardized written tests will reward this dedication, as opposed to other forms of exams which do not require such cramming. In light of this result, I can say that J-mode meritocracy is still alive and well. The connection between long hours of cramming and a positive result is an easy-to-understand formula which works, with some degree of variation, in all countries. Standardized tests specifically rely on this formula, which explains why students who cram for long hours are generally more positive with these tests. Conversely, more customized

forms of exams require less cramming as the scope is different, and were considered in a more negative light by the same students who devote long hours to their studies.

Surprisingly, however, a higher level of high school selectivity was negatively linked to the degree of support for the standardized forms of exams. Hypothesis 5 stated an expectation that top tier high school students would embrace the idea that standardized written exams are the only meritocratic selection instruments as the most prestigious universities heavily rely on them to recruit. The higher the stakes (i.e. social rewards), the more sensitive the public tends to be (Liu, 2011). Furthermore, it is important to remember that in the giant middle-class society that Japan claimed to be, equality of opportunity and effort ideology served as a foundation for J-mode meritocracy. This common ground of shared perceptions has penetrated the public's imagination enough to create the idea that the system is just in its approach to select its elites. Legitimacy is thus acquired through success in extremely demanding exams, reflecting the long and difficult preparation involved. However, it seems that the negative aspects of the "Exam Hell" (high levels of stress and focus on exam preparation at the cost of extracurricular activities) were more important in driving their perceptions than for their peers from middle tier high schools. This result may indicate that students most exposed to facets of J-mode meritocracy are those who are best placed to understand its limits and criticize it. This finding reinforced the argument that J-mode meritocracy is no longer a viable model for future generations and the diversity they now legitimately represent. However, the deep penetration of J-mode meritocracy in public perception of how elites are to be chosen might require time before mindsets change on this matter, and highly meriting elites might exist outside of this standardized test track.

The qualitative analysis helped shed light on the various results obtained during the quantitative phase and brought new elements to understanding how selection instruments of meritocracy in Japan are currently perceived. It is clear that standardized written tests retain the most legitimacy primarily because of their objectivity in candidates' assessment, as well as the

simple, clear equation in students' mind that effort in studies will necessarily be rewarded. Standardized written tests were thus pointed out for their uni-dimensionality of merit assessment and lack of interest in the candidates' backgrounds. Standardized written tests were described by students as perhaps being the most effective existing assessment tool for the required selection, but it is certainly not the best one in terms of merit recognition. Recommendation procedures brought forth numerous questions from students on whether or not they could be trusted, as numerous students were faced with the high school's confidentiality policies implemented when trying to understand on which basis recommendations were given. This plausibly resulted in a lack of student trust in teachers' decisions on who gets a recommendation and, consequently, in the approach taken to the process towards university as something where teacher screening is not desired as it was seen as biased. At the same time, support for recommendation procedures was found in their more holistic approach to merit and assessment of the student over the long run. This holistic approach was also found in students' explanations regarding their support for AO procedures, and was coupled with these procedures' focus on the candidates themselves. Students, however, echoed the recurrent criticisms of AO through their doubts about the academic ability of students selected by this process. Ultimately special admissions were perceived as only measuring English-speaking abilities, which were seen as an insufficient form of merit to grant access to university³³.

In all non-standardized forms of exams, it often appeared that students struggled to reach a conclusion on whether the selection instrument was a meritocratic one or not. This struggle could be interpreted in two ways: 1) the aforementioned pragmatic lack of concern: if students do not plan on entering a university where this entrance procedure exists, why bother? Or 2) Indecision because of the presence of positive and negative aspects in their perception of what a merit-based selection procedure should be. Perhaps both circumstances played a role. However, more customized forms of exams were often seen as addressing the drawbacks of the

³³ Designed mainly for and consequently vastly used by returnee students (MEXT, 1983)

standardized written tests but sacrificed, in contrast, an aspect that helped legitimize standardized tests. Examples of these axes include Objectivity versus Subjectivity or Individuality versus Academic Proficiency. The question was in fact whether students considered this bargain to be acceptable or not in the sense that it was making the selection system more meritocratic.

When considering J-mode meritocracy and the objective measurement of the candidates, qualitative findings clearly indicated that merit should not be locked in an objective, standardized form of exam. Merit, under the diversified system of exams, is no longer limited to what the candidates know but also takes into account who the candidates are. For students in such a setting, it was natural, then, that standardized written tests appeared to be limited instruments of selection. However selection through more customized forms of exams often left students with doubts, as more customization implies more case-by-case considerations. Therefore their sensitivity and understanding of the necessity for more subjectivity in a candidate's evaluation can considerably vary, depending on students' backgrounds.

This dissertation aimed at understanding how merit and meritocracy are currently perceived by high school students by focusing on the instruments of selection to access higher education. The objective was to provide a rarely considered angle, students' perceptions, to analyze the concept of merit within the context of a diversifying entrance system. Indeed, research has focused almost exclusively on a definition of merit fashioned through institutional lenses, considering high school students' views unreliable and of little interest. However, it is here argued that given the importance for Japanese universities to defend their legitimacy in an era of increasing global competition, it is crucial to reflect on how students understand merit. Their perceptions reflect how convincing the discourse on merit appears as they hear discourses from various university officials, teachers and education-related workers. It is all the more important to present university selection procedures as merit-based as in the Japanese low birthrate context, maintaining a meritocratic image is central for a university's survival. Following Weberian

sociology on how social actors are influenced by institutions, but also capable of directing their choices to a certain extent, discarding students' views on merit would be disregarding a central component of a current understanding of Japanese meritocracy. Students' views matter as they orientate their choices based on their analysis of the whole discourse on merit and will constitute the workforce within a few years. The self-affirmation theory was verified during this study, resulting in a good chance that the social actors, who are pursuing selection through particular forms of exams, will support the idea that these particular exams are meritocratic, hence stepping individually away yet more distinctly from an otherwise J-mode view of meritocracy.

The J-mode meritocracy concept presented by Kariya (2000) was indeed the starting point of this research; an organizational model where effort, measured by cramming ability, was the basis for recognizing merit. This form of merit was seen as inseparable from its instrument of selection: standardized tests. However, the diversification of university entrance procedures has led to various elements which have now altered the notion of "merit". More precisely, Japanese policymakers, while introducing new forms of selection, have expanded the meritocratic concept with some popular success given their use in universities in Japan (MEXT, 2015d). On paper, merit is no longer only academic proficiency as measured by cramming potential on a one-day exam. Recommendation procedures were a first step away from this model but kept the focus on academic proficiency as the basis for selection. However, they introduced a change in the entities involved in the selection process: rather than leaving it entirely up to the university, high school personnel became an official part of the selection process. If their involvement in the promotion towards university was only an advisory role (through orientation guidance or *shinroshidou*), recommendation procedures provided high schools with a potential decision making role in their own students' continuation of their studies. Hence it was no longer a student/university matter but rather one involving a student/high school/university relationship. The introduction of a known third party led to doubts at two levels about the objectivity of such selection procedures: 1) by virtue of an agreement between the high school and the university, the university now gave

high schools the authority to select among their own elements, implying the use of selection criteria specific to the high school, and 2) the high school personnel in charge of selecting students for recommendation were not unknown to students, introducing doubts about their objectivity as decision-makers. Another possible explanation for the lack of support of recommendation procedure legitimacy can be found in the variety of schools that deliver a recommendation for a certain university. Even though these schools' standards may be close, their differences could nevertheless hinder student support of their legitimacy. Indeed, as schools' standards differ for student evaluation, in a group of schools able to deliver recommendations for the same university, one school could appear to have lower standards than the others. Sasaki (1990) and Nakamura (1996) described how such a different system was eventually accepted. It took a long time for this to become an integral part of the selection processes landscape, however, and because criteria differ from one high school to another, it remains debatable (all the more with internal recommendation procedures).

AO procedures, which entered the framework of selection processes in 2000, have since spread throughout universities across Japan, thus bringing one further alteration in the definition of merit. The selection was again entirely left to the university's officials. However, the criteria for selection widened greatly, no longer limiting merit to academic proficiency but including criteria such as motivation and creativity. AO procedures nevertheless suffered (and still do) from their lack of clear guidelines and bases for selection. The responsibility is left to university officials to select applicants based on the university's policy, and their authority as decision makers is confronted with the obvious subjectivity involved in selection as a consequence. Contrary to the objective nature of standardized tests, AO procedures, which involve looking at who the applicant is, require the correctors' subjectivity and are embedded into the university's culture. Currently AO procedures are probably the least in line with J-mode meritocracy, given their degree of customization. This hides both a fabulous creative potential for new forms of merit, but also an incredible amount of potential misuse. In terms of cultural and intellectual, institutions can

greatly benefit from the synergy of having different profiles of student altogether. However, for purely survival reasons, many institutions have relied on AO procedures to recruit students. The expansion of AO procedures is connected to the low birthrate in this respect, and so is their mitigated image in the mind of the public. To uncover their full potential, experimentation and adjustments over time are undeniably necessary.

Chapter 8: Conclusion

This dissertation proposed to conceptualize merit by breaking down the concept into four constituent elements. It aimed at using these various constituent elements to understand the perceptions students have of a diversifying selection system using J-mode meritocracy principles as an initial basis for analysis. Patterns that emerged from the results showed that J-mode meritocracy was still influential but no longer the only acceptable ideal for sorting and selecting students. As it shed light over the concept of merit, it appears this way of conceptualizing merit for the case of entrance exams in Japan could be used again to further our understanding of how the meritocratic ideal in Japan, and elsewhere, is changing.

This dissertation allowed us to understand that the Japanese meritocratic ideal is changing from its reliance on standardized written tests and effort ideology. These changes are creating confusion as to how merit is to be understood, but it is not necessarily rejected as being irrelevant. This has important implications as it means the current high school cohort is not closed to changes in university entrance procedures. Understanding what motivates the degree of support for a selection procedure as legitimately meritocratic however requires further investigation. Qualitative research has been identified as a valuable option to further the research, essentially as students' situations are diverse. Besides, certain aspects of students' backgrounds are difficult to assess with purely quantitative methods (such as time capital or cultural capital). As factors such as cultural capital are described as influential in the literature, and given the various elements revealed in the qualitative findings of the present study, a more thorough examination of its role would certainly shed supplementary light on merit perceptions. The

research was also limited this time to private high schools in Tokyo. Hence, looking into how public high school students take on the system, as well as students in other areas in Japan, will also be valuable to have a more holistic vision in understanding how merit is perceived within the Japanese entrance context, which would help to contribute a further updated understanding of meritocracy in the future.

Ordinal logistic regression gave mitigated results on what fundamentally motivates students' perceptions. Certain influential theories on cultural capital could not be tested through inferential statistics due to the absence of answers (less than 80% of answers on parents' last degree and numbers of books at home). Logistic regression analysis nevertheless proved to be useful in verifying or invalidating certain theories on what motivates students' adherence to meritocratic ideology. This series of ordinal logistic regressions only scratched the surface but nevertheless empirically supported several theories which could explain how merit is shaped in students' minds, including self-affirmation theory, effort ideology and schools stratification theory.

As such, interviews, comment analysis and field notes proved to be very rich sources of information and offer new perspectives for research. They offered an emic set of perspectives on a situation primarily brought about by the doing of policymakers, which is perhaps partially disconnected from the realities in the field. These perspectives illustrate how diverse the use of the various university entrance procedure can be and how, in turn, their image is shaped in the minds of students and school personnel members. In this respect, a supplementary qualitative approach has proved to be promising for further research on the diversification of university entrance exams and the repercussions felt in the evolution of Japan's meritocratic ideal.

Japanese society remains divided over the diversification of university entrance procedures as was illustrated by high school students' answers to the questionnaires and interviews conducted in 2014-2015, and by field notes reflections. In the minds of students, standardized tests remain the most legitimate processes to enter university, generally speaking,

but AO procedures are far from being perceived as illegitimate. A number of students answered that they did not know much about AO, and were unable to side with either its proponents or opponents, or showed a pragmatic lack of concern. Nevertheless, for many students, the procedures' presence as a potential avenue into university is enough to support their legitimacy. Some students pushed their analysis further by pointing out AO procedures could be fairer for certain individuals and to university diversity. However, as nothing forces universities to use academic proficiency criteria for selection through this exam, they somewhat retain the image of a backdoor entrance when compared to standardized tests. They make up for the shortcomings of the standardized tests but fail to exhibit the element which best ensures standardized tests' legitimacy: academic proficiency verification. Nevertheless, during the interviews and in their comments, most students mentioned that academic proficiency and individuality are both necessary components for a relevant selection of an entering cohort nowadays.

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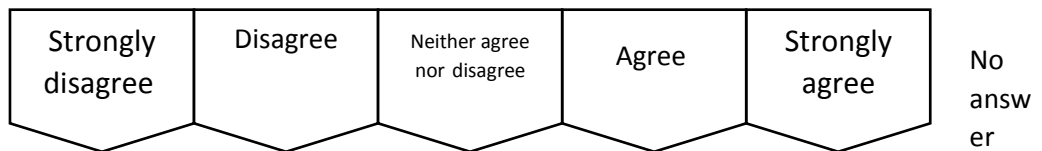
Appendixes

Appendix 1: Pilot Survey Results on Exam Perceptions

High School A (n=225)

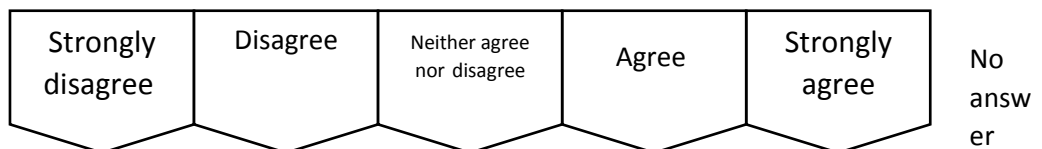
1 = Strongly disagree ; 2 = Disagree ; 3 = Neither agree nor disagree ; 4 = Agree ; 5 = Strongly agree

“This type of exam is a valid type of exam to get access to university.”



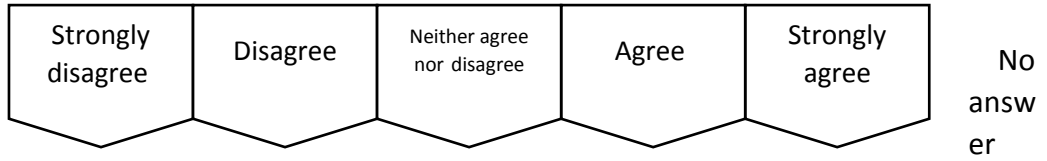
General exam	5.3	4.0	8.0	22.1	58.8	1.8
Center Exam	7.1	8.0	14.6	25.2	42.9	2.2
Recommendation	6.6	8.4	28.3	27.9	26.1	2.7
AO exam	11.5	13.7	27.4	21.7	23.0	2.7

“To succeed to this exam, long hours of study are necessary.”



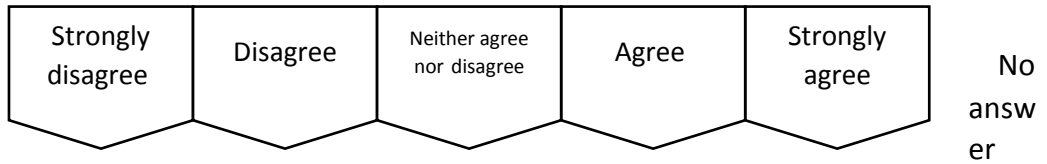
General exam	2.7	0.9	1.8	5.8	87.2	1.8
Center Exam	2.2	3.1	7.5	16.8	68.6	1.8
Recommendation	10.2	15.9	27.4	21.2	22.1	3.1
AO exam	12.8	18.6	31.4	17.7	17.7	1.8

“The result of this exam depends on the person grading it.”



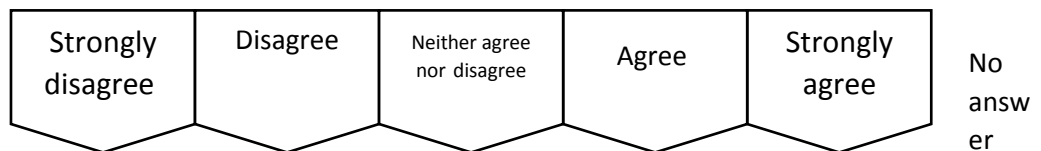
General Exam	50.4	17.3	12.4	7.5	8.4	4.0
Center Exam	61.1	11.9	11.1	4.4	7.5	4.0
Recommendation	7.1	7.5	18.6	27.0	35.8	4.0
AO Procedures	4.9	1.8	10.2	27.0	53.1	3.1

“This exam guarantees equality of treatment.”



General Exam	4.4	1.3	8.4	22.6	61.1	2.2
Center Exam	4.0	3.1	11.5	22.6	56.6	2.2
Recommendation	9.7	14.2	31.0	21.2	21.7	2.2
AO Procedures	15.5	22.6	33.2	13.3	12.8	2.7

“The knowledge gathered for this exam can be useful even after the exam.”



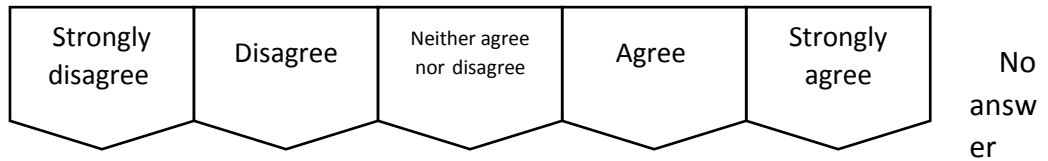
General exam	6.6	10.2	17.3	21.7	41.2	3.1
Center Exam	9.7	11.9	17.3	23.0	35.0	3.1
Recommendation	17.3	18.1	27.9	19.0	14.2	3.5

AO exam **16.4.....12.4.....25.7.....22.6.....19.5.....3.5**

High School B (n=113)

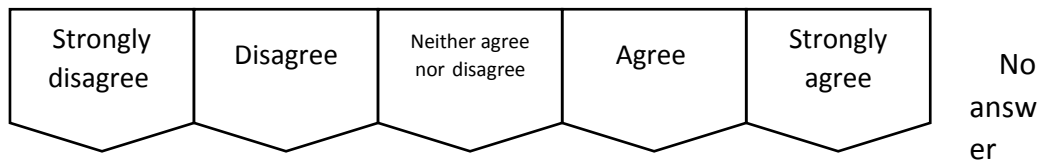
1 = Strongly disagree ; 2 = Disagree ; 3 = Neither agree nor disagree ; 4 = Agree ; 5 = Strongly agree

“This type of exam is a valid type of exam to get access to university.”



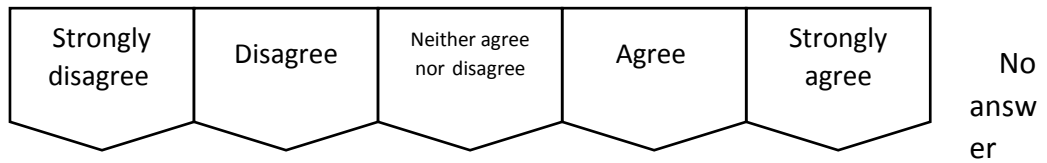
General Exam **11.5.....2.7.....7.1.....6.2.....54.9.....17.7**
 Center Exam **10.6.....5.3.....11.5.....20.4.....33.6.....18.6**
 Recommendation **9.7.....10.6.....18.6.....17.7.....26.5.....16.8**
 AO Procedures **9.7.....10.6.....16.8.....22.1.....23.0.....17.7**
 Sp. Admissions **8.0.....7.1.....27.4.....15.0.....23.0.....19.5**

“To succeed to this exam, long hours of study are necessary.”



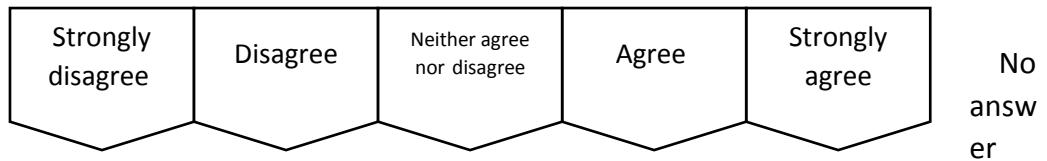
General Exam **10.6.....0.9.....6.2.....5.3.....63.7.....13.3**
 Center Exam **9.7.....4.4.....6.2.....14.2.....49.6.....15.9**
 Recommendation **8.8.....11.5.....20.4.....27.4.....15.0.....16.8**
 AO Procedures **8.8.....15.0.....23.9.....22.1.....14.2.....15.9**
 Sp. Admissions **11.5.....12.4.....37.2.....10.6.....9.7.....18.6**

“The result of this exam depends on the person grading it.”



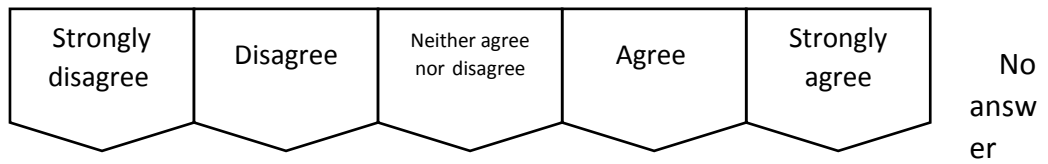
General Exam	39.8	18.6	11.5	8.0	8.0	14.2
Center Exam	48.7	14.2	11.5	0.9	8.8	15.9
Recommendation	7.1	5.3	16.8	24.8	30.1	15.9
AO Procedures	8.0	0	13.3	21.2	43.4	14.2
Sp. Admissions	11.5	0.9	20.4	21.2	29.2	16.8

“This exam guarantees equality of treatment.”



General Exam	12.4	6.2	6.2	11.5	50.4	13.3
Center Exam	9.7	7.1	7.1	11.5	49.6	15.0
Recommendation	14.2	17.7	26.5	13.3	13.3	15.0
AO Procedures	15.9	15.0	29.2	9.7	14.2	15.9
Sp. Admissions	12.4	15.0	30.1	10.6	14.2	17.7

“The knowledge gathered for this exam can be useful even after the exam.”



	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	No answer
General Exam	9.7	7.1	15.0	11.5	41.6	15.0
Center Exam	8.8	8.0	18.6	14.2	34.5	15.9
Recommendation	10.6	11.5	23.9	16.8	23.0	14.2
AO Procedures	11.5	13.3	19.5	15.9	23.9	15.9
Sp. Admissions	10.6	9.7	32.7	8.0	20.4	18.6

Appendix 2: Pilot Study Cross-tabulations on Perceptions of Recommendation Procedures as Merit-Based Selection Procedures and Respondents' Use of Recommendation Procedures as University Entrance Avenue

Table A1. Respondent's Targeting Recommendation Procedures and Perceived Merit-Based Selection of Recommendation Procedures (High School A)

Perceived merit-based selection of the Recommendation procedures	Respondent Targets Recommendation Procedures		Total (N)
	No	Yes	
Not merit-based	18.1%	1.3%	12.1% (26)
Not really merit-based	30.4%	27.6%	29.4% (63)
Somehow merit-based	37.7%	46.1%	40.7% (87)
Merit-based	13.8%	25%	17.8% (38)
Total	100%	100%	100%
N	138	76	214

χ^2 : 15.843 (The observed significance level is less than 0.01.)

Cramer's V: 0.272 (The observed significance level is less than 0.01.)

Table A2. Respondent's Targeting Recommendation Procedures and Perceived Merit-Based Selection of Recommendation Procedures (High School B)

Perceived merit-based selection of the Recommendation procedures	Respondent Targets Recommendation Procedures		Total (N)
	No	Yes	
Not merit-based	20.0%	2.9%	13.3% (12)
Not really merit-based	34.5%	14.3%	26.7% (24)
Somehow merit-based	40.0%	54.3%	45.6% (41)
Merit-based	5.5%	28.6%	14.4% (13)
Total	100%	100%	100%
N	55	35	90

χ^2 : 16.878 (The observed significance level is less than 0.01.)

Cramer's V: 0.433 (The observed significance level is less than 0.01.)

Appendix 3: Weight

In order to reflect the composition of the total population considered in the study, weights were applied to data for the ordinal logistic regressions. Weights were calculated in the following way:

$$\text{Weight} = \frac{\text{Percentage of the sub – strata in the whole strata population}}{\text{Percentage of the sub – strata in the sample population}}$$

Table A3 gives the details on the number of students per strata and sub-strata, as well as the percentage they represent within the total population and total sample. Due to the lack of respondents for the lower tiers co-ed high school stratum, and the weight that would result from it, this category was suppressed from the analysis.

Table A3. Number of Students per Strata and Sub-Strata, Percentage Represented in Sub-Strata and Resulting Weight

Whole Population per Strata	Sub-Strata (number of students) and percentage of the whole population	Sample Population per Strata	Sample(number of students) and percentage of the sample population	Weight Applied
Top Tier (19,861 students)	Male (4,241) 21.35%	Top Tier (312 students)	18 (5.77%)	3.70
	Female (5,591) 28.15%		79 (25.32%)	1.11
	Co-ed (10,029) 50.49%		215 (68.91%)	0.73
Middle Tier (18,469 students)	Male (1,608) (8.71%)	Middle (768 students)	76 (9.89%)	0.88
	Female (3,901) (21.12%)		265 (34.50%)	0.61
	Co-ed (12,960) (70.17%)		427 (55.60%)	1.26
Low Tier (6,913 students)	Male (399) (5.77%)	Low Tier (367 students)	185 (50.41%)	0.11
	Female (1,862) (26.93%)		171 (46.59%)	0.58
	Co-ed (4,652) (67.29%)		11 (3%)	22.43

Note. Source: created by author.

Appendix 4: High School Recruitment Details

High schools' support to the study was diverse. Table A4 sums up the selectivity tier, gender, number (including percentage of support in regard to the number of high schools approached) and representing total student number (not weighted) for the sample of the high schools approached for the study.

Table A4. High schools Approached per Selectivity Tier, Gender, Number Approached and Participation

Sub-Stratum	Gender	Schools Approached	Schools Participating	Support Rate	Total Number of Students in the Sample
High	<i>Boy</i>	6	1	16.6%	18
	<i>Girl</i>	5	1	20%	79
	<i>Co-ed</i>	3	1	33.3%	215
Middle	<i>Boy</i>	5	1	20%	76
	<i>Girl</i>	10	3	30%	265
	<i>Co-ed</i>	3	3	100%	427
Low	<i>Boy</i>	2	1	50%	185
	<i>Girl</i>	1	1	100%	171
	<i>Co-ed</i>	5	1	20%	11

Note. Source: created by author.

Appendix 5: Variables List as Measured in the Questionnaire

Table A5. Personal Background Data

Variable	Scale
Respondent's Gender	Respondent's gender is coded as (0) for Male or (1) for Female. ³⁴
Number of brothers and sisters	Respondent's number of siblings is coded with the total number of siblings plus one (respondent him/herself). ³⁵
Father's educational attainment	Respondent's father's educational attainment. It is coded as: (1) High school, (2) Junior College, (3) University, (4) Master or (5) Doctorate.
Mother's educational attainment	Respondent's mother's educational attainment. It is coded as: (1) High school, (2) Junior College, (3) University, (4) Master or (5) Doctorate.
Father's socio-professional category	Respondent's father's socio-professional category. It is coded as: (1) Manager, Administrator, (2) Regular worker- Senior executive, (3) Regular worker – Middle executive, (4) Regular worker Junior executive, (5) Regular worker – Employee, (6) Regular worker – without particular function, (7) Regular worker – Unknown function, (8) Part-time job, (9) Occasional worker, (10) Independent worker, (11) Housework, (12) Homeworking or (13) Never worked.
Mother's socio-professional category	Respondent's mother's socio-professional category. It is coded as: (1) Manager, Administrator, (2) Regular worker- Senior executive, (3) Regular worker – Middle executive, (4) Regular worker Junior executive, (5) Regular worker – Employee, (6) Regular worker – without particular function, (7) Regular worker – Unknown function, (8) Part-time job, (9) Occasional worker, (10) Independent worker, (11) Housework, (12) Homeworking or (13) Never worked.
Living Place	Respondent's current living place. It is coded as: (1) Parents' Home, (2) Dormitory, (3) Relative's home, (4) Share Apartment, (5) Other
Number of books at home, including e-books	The approximate number of books and e-books respondent possesses at home. It is coded as: (1) Fewer than 10, (2) Between 11 and 25, (3) Between 26 and 100, (4) Between 101 and 200, (5) Between 201 and 500 or (6) More than 501. ³⁶
Family Assets	A checklist of respondent's assets his or her family may have as well as the number of them. It is coded as: (0) if the respondent doesn't have any or (1) if the respondent has some, as well as the number of them. ³⁷ Assets include: house (excluding renting), summer house, field (excluding garden), bath tub, children's room, car, artwork, piano, literature collection/encyclopedia, fridge, dishwasher, electric toilet, air conditioner, television, DVD recorder, computer, high speed internet connection, phone (including cellphone), sports club member card,

³⁴ Source: 2005 SSM Survey (2005)

³⁵ Adapted from 2005 SSM Survey (2005)

³⁶ Ibid.

³⁷ Ibid.

stock options, None		
Weekly interactions with father	direct	An appraisal of the weekly direct interactions with father (face to face, phone and skype). It is coded as: (1) More than 11 times, (2) 6 to 10 times, (3) 3 to 5 times or (4) Less than 2 times.
Weekly interactions with father	indirect	An appraisal of the weekly indirect interactions with father (email, line). It is coded as: (1) More than 20 times, (2) 15 to 19 times, (3) 10 to 14 times, (4) 6 to 10 times or (5) Less than 5 times.
Weekly interactions with mother	direct	An appraisal of the weekly direct interactions with mother (face to face, phone and skype). It is coded as: (1) More than 11 times, (2) 6 to 10 times, (3) 3 to 5 times or (4) Less than 2 times.
Weekly interactions with mother	indirect	An appraisal of the weekly indirect interactions with mother (email, line). It is coded as: (1) More than 20 times, (2) 15 to 19 times, (3) 10 to 14 times, (4) 6 to 10 times or (5) Less than 5 times.
Weekly interactions with friends	direct	An appraisal of the weekly direct interactions with friends (face to face, phone and skype). It is coded as: (1) More than 11 times, (2) 6 to 10 times, (3) 3 to 5 times or (4) Less than 2 times.
Weekly interactions with friends	indirect	An appraisal of the weekly indirect interactions with friends (email, line). It is coded as: (1) More than 21 times, (2) 15 to 21 times, (3) 8 to 14 times, (4) Less than 7 times.
Weekly interactions with club members	direct	An appraisal of the weekly direct interactions with club members (face to face, phone and skype). It is coded as: (1) More than 11 times, (2) 6 to 10 times, (3) 3 to 5 times or (4) Less than 2 times.
Weekly interactions with club members	indirect	An appraisal of the weekly indirect interactions with club members (email, line). It is coded as (1) More than 21 times, (2) 15 to 21 times, (3) 8 to 14 times, (4) Less than 7 times.

Note. Source: created by author.

Table A6. Schooling-Related Data

Variable	Scale
Parental involvement in pursuing to university	Respondent's appreciation of parental pressure in pursuing to university. It is coded as: (1) Feeling pressured, (2) Feeling sort of pressured, (3) Cannot say, (4) Not really feeling pressured, (5) Not feeling pressured at all or (6) Do not know
Shadow education use	Respondent's use of shadow education (<i>juku</i> and private tutoring). It is coded as (0) Don't use or (1) Use.
Type of shadow education used	Respondent's type of shadow education used. It is coded as: (1) <i>Shingaku juku</i> , (2) <i>Gakushuu juku</i> , (3) Private tutoring, (4) Others, (5) <i>Shingaku juku</i> and Tutor, (6) <i>Gakushuu juku</i> and tutor or (8) Not affected.

Time since starting shadow education	Respondent's number of years since starting shadow education. It is coded as: (1) Half a year or less, (2) 1 year, (3) 2 years, (4) 3 years, (5) 4 years, (6) 5 years and more or (8) Not affected.
Shadow education hours of study per week	Respondent's weekly number of hours spent using shadow education. It is coded as (1) 1 to 2 hours, (2) 3 to 5 hours, (3) 6 to 8 hours, (4) 9 to 11 hours, (5) 12 to 14 hours, (6) More than 15 hours or (8) Not affected.
Self-Reported Achievement	Respondent's self-reported rank in his or her class. It is coded as (1) Bottom of the ranking (2) Lower middle part of the ranking, (3) Average of the ranking, (4) Upper middle part of the ranking or (5) Top of the class.
Study hours per week, including studies at home, at school and shadow education	Respondent's time devoted to study each week, excluding school hours but including shadow education hours and personal study time. It is coded as (1) Fewer than 5 hours, (2) Between 5 and 10 hours, (3) Between 10 and 15 hours, (4) Between 15 and 20 hours, (5) Between 20 and 25 hours, (6) Between 25 and 30 hours or (6) More than 30 hours.
Targeted university	Respondent's first, second and third choices (if any) of targeted university after graduating from high school.
Targeted entrance procedure for each university	Respondent's targeted entrance procedure depending on targeted universities. It is coded as (1) General entrance exam, (2) Center Exam, (3) Non-internal recommendation procedures, (4) Internal recommendation procedures, (5) AO procedures, (6) Special admission procedures or (7) Other
Confidence in succeeding to be accepted to targeted universities	Respondent's degree of confidence in succeeding in the entrance procedures of the targeted universities. It is coded as: (1) Not confident at all, (2) Not very confident, (3) Neither confident nor not confident, (4) Confident or (5) Very confident
Motivation to enter targeted universities if successful	Respondent's intents to enter targeted universities if successful in the entrance procedure. It is coded as: (1) Not very motivated, (2) Cannot say, (3) Would like to enter or (4) will certainly enter.

Note. Source: created by author.

Table A7. Continuous Data on Perceived Merit in the Various Entrance Procedures (on Likert scales)

Variable	Scale
Perceived appropriateness of the procedure	Respondent's perceived appropriateness of an entrance procedure as a measure of individual abilities. It is coded as: (1) Strongly disagree, (2) Disagree, (3) Neither agree nor disagree, (4) Agree or (5) Strongly agree.
Perceived amount of effort necessary for the procedure	Respondent's perceived necessary amount of effort to succeed in the entrance procedure. It is coded as: (1) Strongly disagree, (2) Disagree, (3) Neither agree nor disagree, (4) Agree or (5) Strongly agree.
Perceived neutrality of results by procedure	Respondent's perceived influence of the corrector in the entrance procedure result. It is coded as: (1) Strongly disagree, (2) Disagree, (3)

	Neither agree nor disagree, (4) Agree or (5) Strongly agree.
Perceived equal treatment of candidates in the procedure	Respondent's perceived non-influence of background factors in the result of the entrance procedure. It is coded as: (1) Strongly disagree, (2) Disagree, (3) Neither agree nor disagree, (4) Agree or (5) Strongly agree.
Perceived just treatment of candidates in the procedure	Respondent's perceived fairness of the entrance procedure. It is coded as: (1) Strongly disagree, (2) Disagree, (3) Neither agree nor disagree, (4) Agree or (5) Strongly agree.
Perceived usefulness of the knowledge gathered during procedure preparation even after it	Respondent's perceived usefulness of the knowledge gathered during entrance procedure preparation time for a future use. It is coded as: (1) Strongly disagree, (2) Disagree, (3) Neither agree nor disagree, (4) Agree or (5) Strongly agree.

Note. Source: created by author.

Table A8. Data on General Opinions about Social Values:

Variable	Scale
Belief in Effort Ideology	Respondent agreeing or not agreeing with the statement "If you put forth effort, you will necessarily achieve your goal"; it is coded as: (1) Strongly disagree, (2) Disagree, (3) Cannot say, (4) Agree or (5) Strongly agree ³⁸

Note. Source: created by author.

³⁸ Source: 2005 SSM Survey (2005)

Appendix 6: Questionnaire distributed to High School Students

本調査について

私は国際基督教大学博士課程後期 4 年生のアルベール・ギヨム(Guillaume Albert)と申します。現在、「大学入試の多様化と高校生の能力に関する意識」について博士論文のため研究を行っています。本研究により、日本の受験を取り巻く現状をより理解したく、皆様のご協力をお願い致します。調査結果は、まとめて学校にお渡ししますので、今後の進路指導に役立てて頂けると幸いです。

調査の結果は博士論文、学会発表、出版物などの利用に限定し、これら以外の目的では使用いたしません。また、結果に対し匿名を用い、個人情報の保護を保証します。高校名に関しても公表いたしません。

この調査に関して、さらに一つのお願ひ事があります。あなたの体験談を研究論文や学会での発表などで他の研究者や学生に伝えたいと思っておりますが、そのため、参加者であるあなたの理解と同意を得る必要があります。参加者のプライバシー保護のため、この調査に基づいた論文や発表に出てくるデータは必ず無記名とします。

このアンケートについて分からない単語・語彙があれば担当の先生に聞いてください。

回答後、添付されている封筒にアンケートを入れ、封をしてから担当の先生にお渡しください。

お忙しい中、誠に申し訳ありません。よろしくお願い致します。

Guillaume Albert

参加者の同意

同意して下さるならば四角にチェックを入れてください：

上記の事を理解し、前述のデータの使い方に同意します。

1) あなたとあなたの学校生活について

1-1) あなたの性別 男 女 無回答

1-2) あなたの兄弟姉妹は何人ですか？それぞれの人数を教えてください。

兄__人 姉__人 弟__人 妹__人

1-3-1) 毎日友達とどれぐらい直接連絡（対面、電話、スカイプなどを合せて）をとりますか。

- a. 11 回以上
- b. 6 回から 10 回まで
- c. 3 回から 5 回まで
- d. 2 回以下

1-3-2) 毎日友達とどれぐらい文字を通して連絡（メール、ラインなど）をとりますか。

- a. 21 回以上
- b. 15 回から 21 回まで
- c. 8 回から 14 回まで
- d. 7 回以下

1-4-1) 毎日部活の部員とどれぐらい直接連絡（対面、電話、スカイプなどを合せて）をとりますか。

- a. 11 回以上
- b. 6 回から 10 回まで
- c. 3 回から 5 回まで
- d. 2 回以下
- e. 部活していません

1-4-2) 毎日部活の部員とどれぐらい文字を通して連絡（メール、ラインなど）をとりますか。

- a. 21 回以上
- b. 15 回から 21 回まで
- c. 8 回から 14 回まで
- d. 7 回以下
- e. 部活していません

1-5) 週に学校以外で約何時間勉強しますか？（家、塾、予備校、習い事等）

- a. 30 時間以上
- b. 25 時間以上 30 時間未満
- c. 20 時間から 25 時間未満
- d. 15 時間から 20 時間未満
- e. 10 時間から 15 時間未満
- f. 5 時間から 10 時間未満
- g. 5 時間未満

1-6) あなたの成績はクラスの中でどのぐらいだと思いますか？次の中からあてはまるものを選んでください。

- a. 上の方
- b. やや上の方
- c. 真ん中あたり
- d. やや下の方
- e. 下の方

2) あなたの学校外教育について

2-1) 学校外教育（塾、家庭教師、受験に必要な教育など）で行われる教育を受けていますか？（習い事は含めません）

- 学校外教育を受けています。
- 学校外教育を受けていません。（←チェックをした方は、**3) あなたの進学について**(pg.8)にお進みください）

2-2) 進学塾は通っていますか？

- 通っている
- 通っていない（←チェックをした方は、**2-2) (pg.5)**にお進みください）

2-2-1) 通っている場合はいつからですか？

- a. 5年以上前から
- b. 4年前から
- c. 3年前から
- d. 2年前から
- e. 1年前から
- f. 半年前から

2-2-2) 現在週にどれぐらい通っていますか？

- a. 15時間以上
- b. 12時間から14時間まで
- c. 9時間から11時間まで
- d. 6時間から8時間まで
- e. 3時間から5時間まで
- f. 1時間から2時間まで

2-2-3) 夏休みや冬休みの間は週に何時間通っていますか？

- a. 25 時間以上
- b. 20 時間から 25 時間未満
- c. 15 時間から 20 時間未満
- d. 10 時間から 15 時間未満
- e. 5 時間から 10 時間未満
- f. 5 時間以下

2-3) 学習塾は通っていますか？

- 通っている
- 通っていない (←チェックをした方は、**2-3) (pg.6)**にお進みください)

2-3-1) 通っている場合はいつからですか？

- a. 5 年以上前から
- b. 4 年前から
- c. 3 年前から
- d. 2 年前から
- e. 1 年前から
- f. 半年前から

2-3-2) 現在週にどれぐらい通っていますか？

- a. 15 時間以上
- b. 12 時間から 14 時間まで
- c. 9 時間から 11 時間まで
- d. 6 時間から 8 時間まで
- e. 3 時間から 5 時間まで
- f. 1 時間から 2 時間まで

2-3-3) 夏休みや冬休みの間は週に何時間通っていますか？

- a. 25 時間以上
- b. 20 時間から 25 時間未満
- c. 15 時間から 20 時間未満
- d. 10 時間から 15 時間未満
- e. 5 時間から 10 時間未満
- f. 5 時間以下

2-4) 家庭教師は頼んでいますか？

- 頼んでいる
- 頼んでいない (←チェックをした方は、**2-4) (pg.7)**にお進みください)

2-4-1) 頼んでいる場合はいつからですか？

- a. 5 年以上前から
- b. 4 年前から
- c. 3 年前から
- d. 2 年前から
- e. 1 年前から
- f. 半年前から

2-4-2) 現在週にどれぐらい頼んでいますか？

- a. 15 時間以上
- b. 12 時間から 14 時間まで
- c. 9 時間から 11 時間まで
- d. 6 時間から 8 時間まで

e. 3 時間から 5 時間まで

f. 1 時間から 2 時間まで

2-4-3) 夏休みや冬休みの間は週に何時間頼んでいますか？

a. 25 時間以上

b. 20 時間から 25 時間未満

c. 15 時間から 20 時間未満

d. 10 時間から 15 時間未満

e. 5 時間から 10 時間未満

f. 5 時間以下

2-5) その他の学校外教育を使用していますか？使用している場合は具体的に

[_____]。(使用していない場合

3) あなたの進学について

)

(pg.8)にお進みください。)

2-5-1) 使用している場合はいつからですか？

a. 5 年以上前から

b. 4 年前から

c. 3 年前から

d. 2 年前から

e. 1 年前から

f. 半年前から

2-5-2) 現在週にどれぐらい使用していますか？

a. 15 時間以上

b. 12 時間から 14 時間まで

- c. 9 時間から 11 時間まで
- d. 6 時間から 8 時間まで
- e. 3 時間から 5 時間まで
- f. 1 時間から 2 時間まで

2-5-3) 夏休みや冬休みの間は週に何時間使用していますか？

- a. 25 時間以上
- b. 20 時間から 25 時間未満
- c. 15 時間から 20 時間未満
- d. 10 時間から 15 時間未満
- e. 5 時間から 10 時間未満
- f. 5 時間以下

3) あなたの進学について

3-1-1) あなたの目指している次の進路の道を教えてください。

- a. 就職
- b. 短期大 / 専門学校
- c. 四年制大学
- d. その他
- e. 今考え中

3-1-2) 上に c を選んだ方はあなたが目指している四年制大学と学部はどれですか？第二志望校と第三志望校もあれば教えてください。四年制大学に進学しない場合 **4) 社会的な価値観につい**

ての意見(pg.10)にお進みください。

第一志望校.....

第二志望校.....

第三志望校.....

3-2) 受けようと思っている受験形態は下記のうちどれですか？現時点で考えているもの全てにチェックをいれてください。

	第一志望校	第二志望校	第三志望校
a. 一般入試	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. センター試験	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. 推薦	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. 内部進学	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. AO 入試	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. 特別選考〔具体的に_____〕	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. その他〔具体的に_____〕	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3-3) あなたの現時点での受験勉強のレベルを考えたとき、目指している大学の合格には自信はどれほどありますか？志望大学それぞれについて教えてください。

	第一志望校	第二志望校	第三志望校
a. とても自信がある	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. まあまあ自信がある	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. どちらともいえない	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. あまり自信がない	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. まったく自信がない	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3-4) 志望大学それぞれに対するあなたの進学希望度合いを教えてください。

	第一志望校	第二志望校	第三志望校
a. 絶対に進学したい	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. まあまあ進学したい	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- c. どちらともいえない
- d. そこまで進学したいと思わない

3-5) 大学の進学についてはご両親からプレッシャーを感じますか？

- a. とてもプレッシャーを感じます
- b. プレッシャーを感じます
- c. あまりプレッシャーを感じない
- d. プレッシャーを全く感じない
- e. わからない

4) 社会的な価値観についての意見

あなたの意見に当てはまるものを一つ選んでください。

4-1) 努力をしていれば、必ずその成果が得られる。

- a. そう思う
- b. どちらかといえばそう思う
- c. どちらともいえない
- d. どちらかといえばそう思わない
- e. そう思わない
- f. わからない

4-2) 違った能力を持った人がたくさんいる方が社会にとって望ましい。

- a. そう思う
- b. どちらかといえばそう思う
- c. どちらともいえない
- d. どちらかといえばそう思わない

e. そう思わない

f. わからない

5) 四年制大学入学試験について

それぞれの試験形態についてあなたの意見を下記の回答方法を参考にお答えください。

1 = そう思わない ; 2 = どちらかといえばそう思わない ; 3 = どちらともいえない ;

4 = どちらかといえばそう思う ; 5 = そう思う

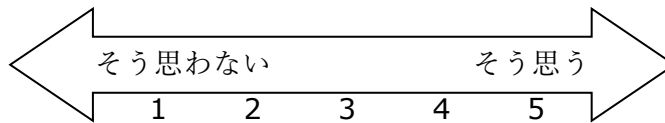
5-1) この入試の種類は入学者選抜の方法として、個人の能力を適切に測る方法である。

	← →				
	そう思わない			そう思う	
	1	2	3	4	5
a. 一般入試	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. センター試験	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. 推薦入学	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. 内部推薦	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. AO 入試	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. 特別選考 (帰国子女入試など)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

もしよろしければ自分の回答にいたった理由を説明してください:

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.....
.....
.....

5-2) この入試の種類で合格するには大変な努力が必要である。



a. 一般入試	[]	[]	[]	[]	[]
b. センター試験	[]	[]	[]	[]	[]
c. 推薦入学	[]	[]	[]	[]	[]
d. 内部推薦	[]	[]	[]	[]	[]
e. AO 入試	[]	[]	[]	[]	[]
f. 特別選考 (帰国子女入試など)	[]	[]	[]	[]	[]

もしよろしければ自分の回答にいたった理由を説明してください:

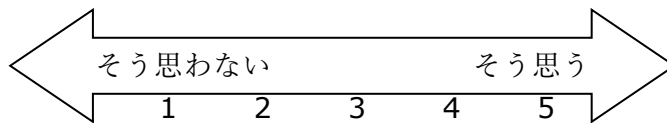
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5-3) この入試の種類試験結果は採点者の主観的な判断に左右される。



a. 一般入試	[]	[]	[]	[]	[]
b. センター試験	[]	[]	[]	[]	[]
c. 推薦入学	[]	[]	[]	[]	[]
d. 内部推薦	[]	[]	[]	[]	[]
e. AO 入試	[]	[]	[]	[]	[]
f. 特別選考 (帰国子女入試など)	[]	[]	[]	[]	[]

もしよろしければ自分の回答にいたった理由を説明してください:

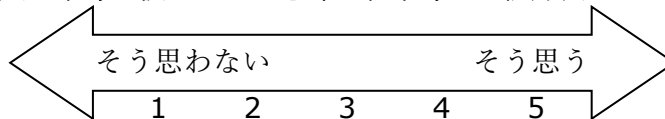
.....

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5-4) この入試の種類は、すべての人を平等に扱うという意味で、平等な選抜方法である。



	1	2	3	4	5
a. 一般入試	[]	[]	[]	[]	[]
b. センター試験	[]	[]	[]	[]	[]
c. 推薦入学	[]	[]	[]	[]	[]
d. 内部推薦	[]	[]	[]	[]	[]
e. AO 入試	[]	[]	[]	[]	[]
f. 特別選考 (帰国子女入試など)	[]	[]	[]	[]	[]

もしよろしければ自分の回答にいたった理由を説明してください:

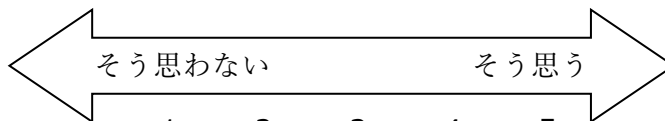
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5-5) この入試の種類は、異なる社会経済的な背景 (入試料や家計など) を考慮するという意味で、公正な選抜方法である。



	1	2	3	4	5
a. 一般入試	[]	[]	[]	[]	[]
b. センター試験	[]	[]	[]	[]	[]
c. 推薦入学	[]	[]	[]	[]	[]
d. 内部推薦	[]	[]	[]	[]	[]
e. AO 入試	[]	[]	[]	[]	[]
f. 特別選考 (帰国子女入試など)	[]	[]	[]	[]	[]

もしよろしければ自分の回答にいたった理由を説明してください:

.....

.....

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.....

5-6) この入試の種類を受ける準備の勉強で学ぶ知識は後の人生に役立つ。



	1	2	3	4	5
a. 一般入試	[]	[]	[]	[]	[]
b. センター試験	[]	[]	[]	[]	[]
c. 推薦入学	[]	[]	[]	[]	[]
d. 内部推薦	[]	[]	[]	[]	[]
e. AO 入試	[]	[]	[]	[]	[]
f. 特別選考 (帰国子女入試など)	[]	[]	[]	[]	[]

もしよろしければ自分の回答にいたった理由を説明してください:

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6) あなたのご家族について

6-1) あなたのお宅には本 (e-book, kindle などを含めて) がどのくらいありますか。 (雑誌、新聞、教科書、漫画、コミックは含めないでお答えください。)

- a. 10 冊以下
- b. 11 冊～25 冊
- c. 26 冊～100 冊
- d. 101 冊～200 冊
- e. 201 冊～500 冊
- f. 501 冊以上
- g. わからない

6-2) あなたのお宅には次にあげるもののうち、どれがありますか。あったものをすべてあげてください。(チェックはいくつでも)。ある場合は数をチェックしてください。

	1つ	2つ	3つ	4つ以上
a. <input type="checkbox"/> 自宅 (賃貸を除く)	<input type="text"/>			
b. <input type="checkbox"/> 別荘	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. <input type="checkbox"/> 田畑 (家庭菜園は除く)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. <input type="checkbox"/> 風呂	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. <input type="checkbox"/> 子供部屋	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. <input type="checkbox"/> 乗用車	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. <input type="checkbox"/> 美術品・骨董品	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. <input type="checkbox"/> ピアノ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. <input type="checkbox"/> 文学全集・図鑑	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. <input type="checkbox"/> 冷蔵庫	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. <input type="checkbox"/> 食器洗い機	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. <input type="checkbox"/> 温水洗浄便座	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. <input type="checkbox"/> クーラー・エアコン	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n. <input type="checkbox"/> 衛星放送・ケーブルテレビ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
o. <input type="checkbox"/> DVDレコーダー	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
p. <input type="checkbox"/> パソコン・ワープロ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
q. <input type="checkbox"/> 高速インターネット回線	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
r. <input type="checkbox"/> 電話 (携帯電話・PHSを含む)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
s. <input type="checkbox"/> スポーツ会員権 (ゴルフ・テニス等)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
t. <input type="checkbox"/> どれも無い	<input type="text"/>			

6-3) あなたのご両親の職業について

父親の仕事：

- a. 経営者・役員
- b. 部長、部長相当職
- c. 課長、課長相当職
- d. 係長、係長相当職
- e. 職長、班長、組長
- f. 常時雇用一般従事者 役職なし
- g. 常時雇用一般従事者 役職はわからない
- h. 臨時雇用・パート、アルバイト
- i. 教員、大学教授
- j. 派遣社員
- k. 自営業主・自由業者
- l. 家族従業者
- m. 内職
- n. 仕事についてたことがない

母親の仕事：

- a. 経営者・役員
- b. 部長、部長相当職
- c. 課長、課長相当職
- d. 係長、係長相当職
- e. 職長、班長、組長
- f. 常時雇用一般従事者 役職なし
- g. 常時雇用一般従事者 役職はわからない
- h. 臨時雇用・パート、アルバイト
- i. 教員、大学教授
- j. 派遣社員
- k. 自営業主・自由業者
- l. 家族従業者
- m. 内職
- n. 仕事についてたことがない

6-4) あなたのご両親の最終学歴について。

父親：

- a. 中学校
- b. 高校
- c. 短期大学 / 専門学校
- d. 四年制大学
- e. 博士前期（修士）
- f. 博士後期（博士）

母親：

- a. 中学校
- b. 高校
- c. 短期大学 / 専門学校
- d. 四年制大学
- e. 博士前期（修士）
- f. 博士後期（博士）

6-5) あなたはどこに住んでいますか？

- a. 自宅
- b. 寮
- c. 親戚の家
- d. シェアアパート
- e. その他〔具体的に_____〕

6-6-1) 毎日ご両親とどれぐらい直接連絡（対面、電話、スカイプなどを合せて）をとりますか。

父親:

- a. 11 回以上
- b. 6 回から 10 回まで
- c. 3 回から 5 回まで
- d. 2 回以下

母親:

- a. 11 回以上
- b. 6 回から 10 回まで
- c. 3 回から 5 回まで
- d. 2 回以下

6-6-2) 毎日ご両親とどれぐらい文字を通して連絡（メール、ラインなど）をとりますか。

父親:

- a. 20 回以上
- b. 15 回から 19 回まで
- c. 10 回から 14 回まで
- d. 6 回から 10 回まで
- e. 5 回以下

母親:

- a. 20 回以上
- b. 15 回から 19 回まで
- c. 10 回から 14 回まで
- d. 6 回から 10 回まで
- e. 5 回以下

現在の大学入試についてコメントがあればご自由に書いてください。

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ご協力ありがとうございます。

Appendix 7: Comment Analysis (detail of occurrences and tones per researched keywords)

Table A9. Comment Analysis Search Term Occurrences

Search Term 1	Nb. Of Search Term Occurrences in total	Comments' tone (Sub-group classification)	Nb. Of occurrences in sub-groups	Search Term 2	Nb. Of Search Term Occurrences in total	Comments' tone (Sub-group classification)	Nb. Of occurrences in sub-groups
"Ippan" (General)	167	Positive	69	"A" (response choice for "ippan")	37	Positive	23
		Neutral	26			Neutral	6
		Negative	36			Negative	8
		Unrelated	36			Unrelated	0
"Sentaa" (Center)	125	Positive	49	"B" (response choice for "sentaa")	32	Positive	20
		Neutral	17			Neutral	6
		Negative	40			Negative	6
		Unrelated	19			Unrelated	0
"Suisen" (Recommendation)	124	Positive	28	"C" (response choice for "suisen")	33	Positive	13
		Neutral	54			Neutral	13
		Negative	25			Negative	7
		Unrelated	17			Unrelated	0
"Naibu" (Internal)	47	Positive	5	"D" (response for "naibu")	27	Positive	7
		Neutral	10			Neutral	10
		Negative	32			Negative	10
		Unrelated	0			Unrelated	0
"AO"	127	Positive	43	"E" (response choice for "AO")	29	Positive	12
		Neutral	44			Neutral	11
		Negative	40			Negative	6
		Unrelated	0			Unrelated	0
"Tokubetsu" (Special)	25	Positive	5	"F" (response choice for "tokubetsu")	25	Positive	5
		Neutral	7			Neutral	9
		Negative	10			Negative	11
		Unrelated	3			Unrelated	0

Note. Source: created by author.

Appendix 8: Descriptive Statistics for Each Constituent Element of Merit

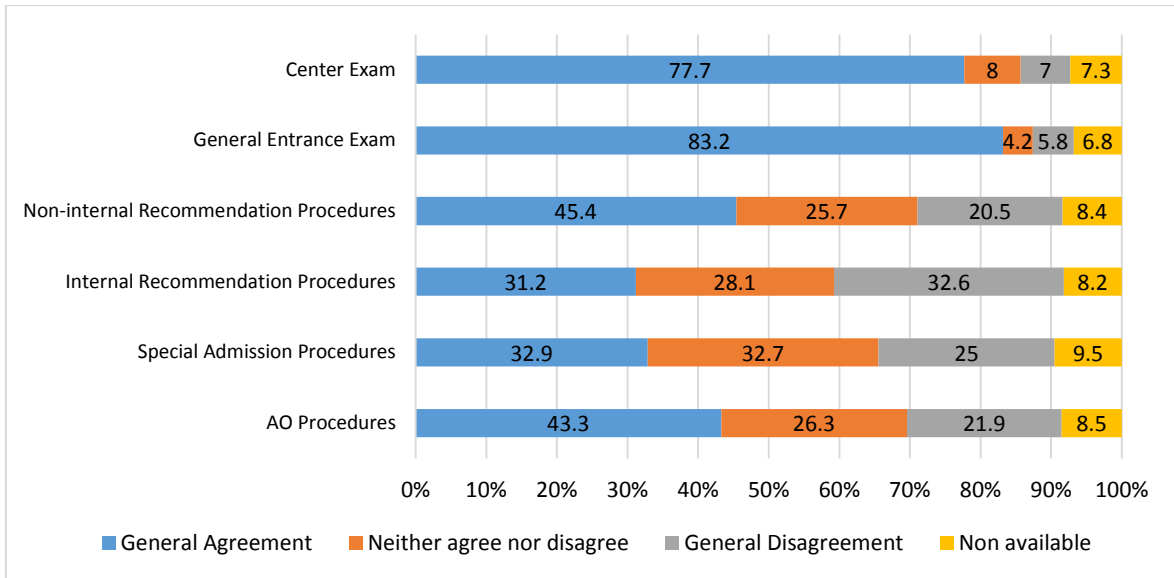


Figure A1. Challenge Perception. Source: created by author.

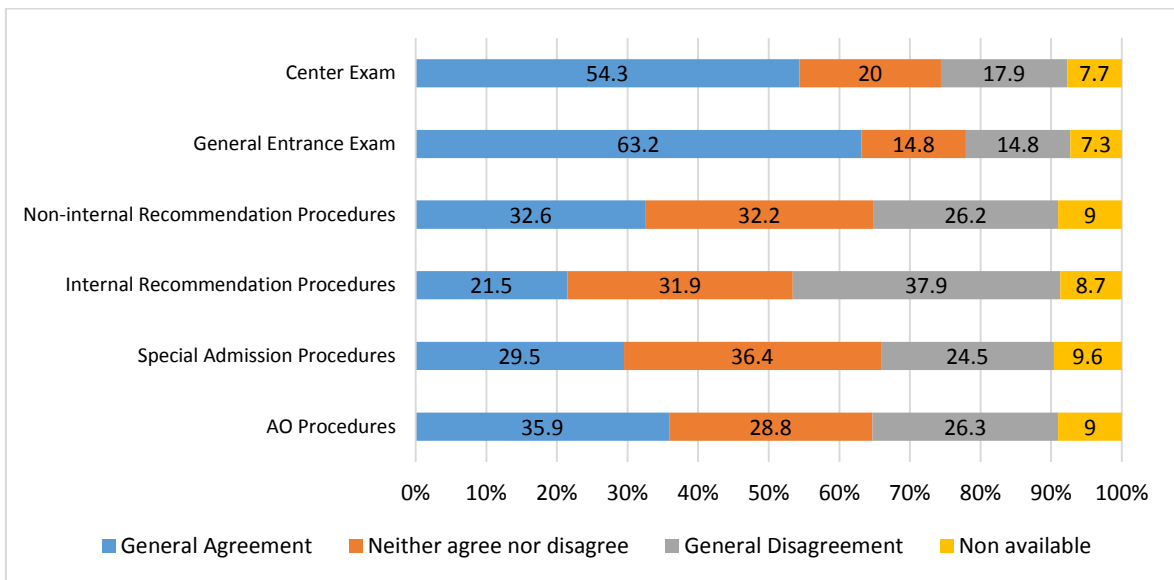


Figure A2. Appropriate Measurement Perception. Source: created by author.

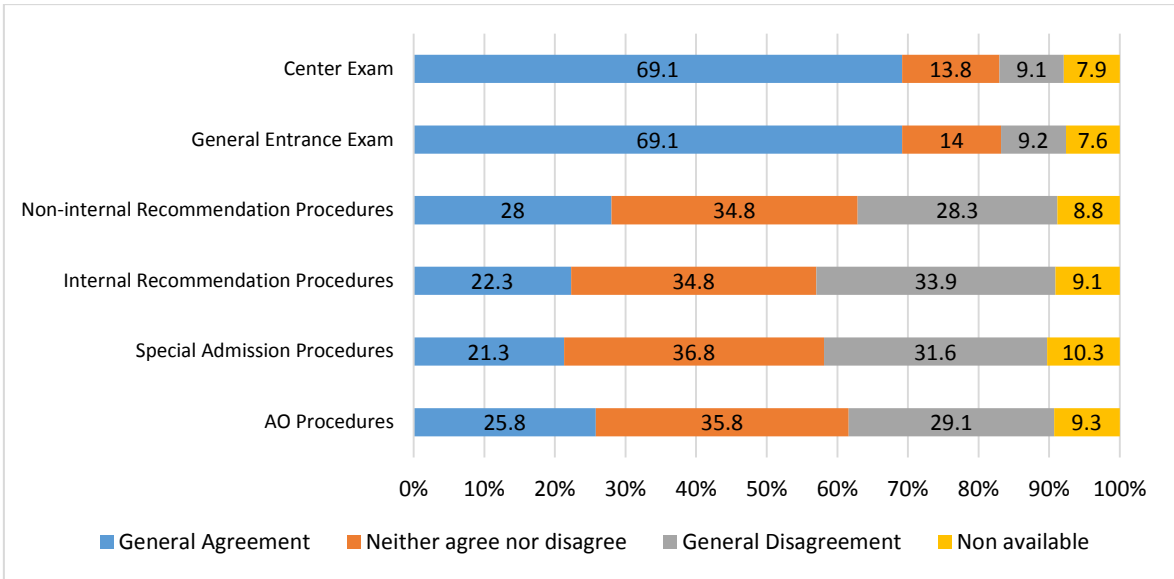


Figure A3. Equality Perception. Source: created by author.

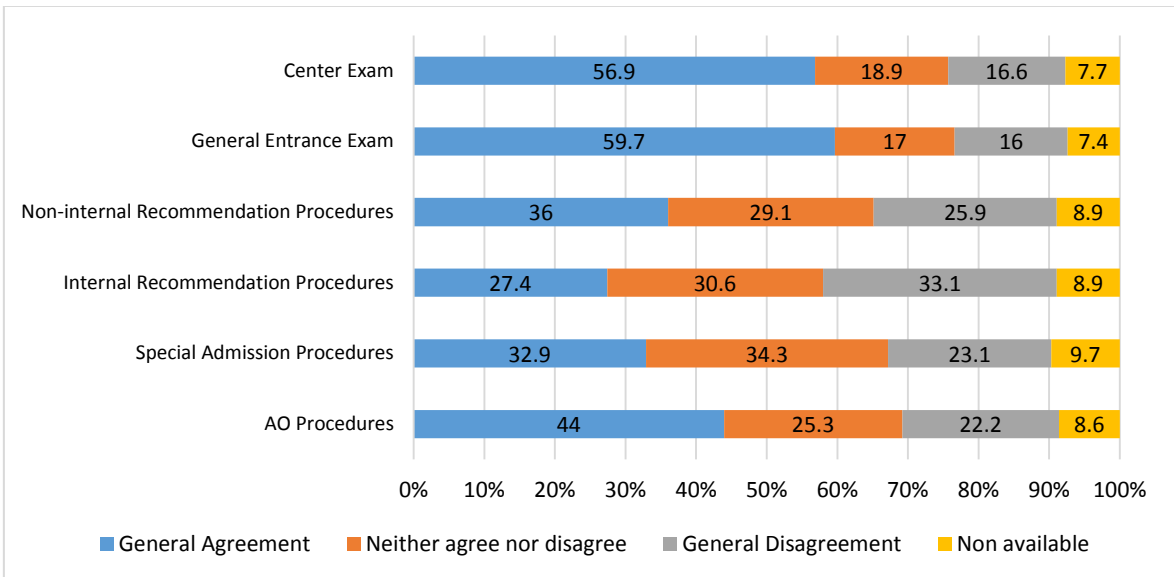


Figure A4. Useful Knowledge Perception. Source: created by author.

Appendix 9: Glossary of Japanese terms

AO nyuushi: Admission Offices procedure. A university entrance procedure.

Daigaku kyoutsuu dai ichiji gakuryoku shiken: Common First-Stage Exam. The former version of the Center Exam, replaced in 1990 as the Center for University Entrance Exam legal status changed.

Daigaku nyuushi sentaa: Center for University Entrance Exam. The institution in charge of the Center Exam.

Gakkkourei shakai: Branding society. A type of society where higher education institution name is seen as a basis for judging of an individual competency on the labor market.

Gakurei shakai: Credential society. A type of society where academic credentials are seen as basis for judging of an individual competency on the labor market.

Gakushuu juku: A type of shadow education establishment focusing on remedial education.

Hensachi: Z-score. An indicator of standardized written test-taking ability used for a vertical ranking of students.

Ippan nyuushi shiken: General entrance exam. A university entrance procedure.

Juken jigoku: Exam hell. A sociological phenomenon describing the period of intense stress students face while preparing for highly selective university entrance exams.

Kikokushijo: returnee student.

Kyouiku saisei jikkou kaigi: The commission on the implementation of education renewal. An advisory committee to the Ministry of education.

Monbusho: Abbreviation of Monbukagakusho, the Japanese Ministry of Education, Culture, Sports, Science and Technology (also abbreviated as MEXT).

Naibu shingaku: Internal promotion. A type of recommendation for a specific university delivered by a high school pertaining to the same educational complex.

Sentaa shiken: Center Exam. A university entrance procedure.

Shakaijin gakusei: Adults resuming studies.

Shingaku kenkyukai: A private establishment specialized in shadow education. It administers a test for measuring students' *hensachi* called "*Shinken V mogi*".

Shingaku juku: A type of shadow education establishment focusing on test-taking skill and knowledge.

Shinken V mogi: A test designed by *Shingaku kenkyukai* for measuring students' *hensachi*.

Shiteikou suisen: Designated schools recommendation.