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# Typology of Abilities Tested in University Entrance Examinations: Comparisons of the United States, Japan, Iran and France

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## Abstract

This study proposes a typology of abilities tested by university entrance examinations with types of knowledge (experiential versus academic) and objective (instrumental versus value) as indices. Four types of abilities are extracted: generic, communal, nomothetic, and political. The proposed typology is examined by past questions on literature subject exams in four countries. The analysis reveals that the SAT in the United States measures effective reasoning for versatile application, whereas the National Center Test in Japan examines the ability to infer human emotions for the creation of inner-community. The Iranian konkur tests the understanding of universal laws for guiding principle in life and French baccalauréat tests the mastery of dialectical procedure for innovation. Entrance examinations reveal the types of abilities and attitude each society values. The proposed typology aids in understanding their qualitative differences, which past studies were unable to elucidate.

## Keywords

university entrance examination – typology of tested abilities – academic versus experiential knowledge – instrumental versus value objective – nationally required abilities – comparisons of American SAT – Japanese National Center Test – French Baccalauréat and Iranian konkur

### What is Tested in Examinations?

What kinds of ability are tested and for what purposes have been investigated by a number of prominent sociologists (Weber 1946, Durkheim 1969, Bourdieu and Passeron 1977). What is actually tested in examinations often contradicts common understanding or official announcements of what they are. Thus exams function in society in unexpected ways. For instance, Weber (1946: 426–428) pointed out that what was tested in the selection of government official in ancient China was not special skills required for bureaucrats but rather “conformity with the prescribed mental outlook” which was necessary to acquire membership in the “cultured status group.” Durkheim also revealed that the testing of ancient Greek and Roman literature’s elegant rhetoric in Jesuit schools was a response to bourgeois families’ yearning for high culture; at the same time, the systemized emulation provoked by fierce examinations reflected the historical trend toward individualization in the seventeenth century. In a line similar to Weber’s argument, Bourdieu and Passeron (1977: 175) stated that what examinations test is the candidate’s “intellectual probity.” They gave examples of how technical faults by exam takers were evaluated with the language of moral depravity: “‘dishonesty,’ ‘culpable negligence,’ and ‘crafty prudence’” (Bourdieu and Passeron 1977: 169). No matter what writing or oral forms of communication are used, once they are adopted in examinations, they become an authority which not only defines the rules of communication (i.e., writing and speaking), but also defines pedagogy and even the definition of knowledge (Bourdieu and Passeron: 142). These studies revealed that what is tested in examinations is deeply related to the socio-historical power structure in society. Thus, investigations of which types of knowledge are most worthy for what purposes have been central to past studies.

Although how we nurture new abilities<sup>1</sup> to survive in an unpredictable and rapidly changing globalizing world has become the topic of much debate worldwide since 1990, examinations for higher education are still administered with variety of forms and contents and for various objectives, in accordance with the conditions and needs of each society. Therefore to schematize the examinations, this paper proposes a typology of abilities tested in exams. The proposed typology will be tested by an analysis of actual exam questions in four countries.

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1 New abilities discussed in the context of globalization, knowledge based society and information technology are distinguished as “key competencies” (Raichen and Salganik 2003).

### Typology of Selection Processes

Education systems are said to have three manifest functions (Hopper 1977). The first is to select children based on the type and level of their abilities. The second is to separate the selected children into various categories and to provide appropriate education for each category. The third is to allocate occupational roles to children according to their level and quality of education completed. Of these three functions, the second and third functions have an integral relationship with the first. It is therefore understood that it is most important to comprehend the structure of education systems in terms of the structure of the selection process (Hopper 1977: 154). Based on this shared idea, research of the structure of selection has been conducted, and many typologies of selection structure have been attempted.

For example, Turner (1960) created a typology of education systems based on the features of social norms. He presented two forms of upward social mobility: sponsored and contest mobility. However, because it is difficult for the dichotomy between patronage and contest (sponsored versus contested mobility) to be applied to countries besides the United States and Great Britain, Hopper (1977) expanded Turner's typology. To the dichotomy of universalistic and particularistic ideologies, Hopper added collectivistic and individualistic ideologies. By crossing them, four ideal types for the ideology of educational selection were deductively derived: aristocratic, paternalistic, meritocratic, and communistic. In four quadrants Hopper placed five countries and compared the features of their educational selection.

Following Hopper's analytic framework, Nakajima et al. (1986) meticulously surveyed the university entrance exam system of 23 countries, and inductively divided the exams into four types. In contrast to Hopper's focus on how, when, of whom, and why selection takes place, Nakajima et al. (1986) derived four types of exams – transitional, meritocratic, open, and socialistic – from the 5 W's – 1) the universities' principles (why), 2) the abilities and qualities evaluated by the exams (what), 3) the methods for determining university entrance (how), 4) the targets of the exams (whom), and 5) the agents making the final decision on granting entrance (who). In contrast to Turner (1960) and Hopper's (1977) proposed typologies, which compared the general features of education systems, Nakajima focused on university education, and classified entrance systems, using as primary indices universities' principles and goals when selecting applicants.

Turner, Hopper, and Nakajima's research categorized exams and education systems by focusing on selection methods and their related ideologies. They showed that the form of selection is an important indicator that characterizes

the education system as a whole and social norms and institutions which support the system. However, these studies did not empirically compare the abilities being tested by actual exams. Hopper (1977: 159) divided abilities tested by exams into three categories: technical skills, diffuse skills, and ascribed characteristics. He deductively conjectured what combination of skills was emphasized by each of the four types of ideologies he presented. The research of Nakajima et al. (1986: 20–30) categorized abilities measured by exams as advanced general education, knowledge of specialized fields, general basic knowledge, and skills other than knowledge. He analyzed trends concerning the knowledge emphasized by each type of ideology, but did not discuss the abilities themselves. While it is said that the first function of education systems is to select children according to different types and levels of abilities, abilities themselves remain in a black box. Thus in the paper, I propose a typology that focuses on educational goals and their contents, and analyze actual exam questions to investigate what kind of abilities are tested.

### Typology of Abilities Tested by University Entrance Examinations

Types of abilities are deeply connected with educational goals and the contents (i.e., forms of knowledge) for achieving these goals. Since the establishment of modern schools, there have been two main different schools of thought on these elements (Gwynn 1947). They differ in seeing educational goals as instruments or as values. The former standpoint considers education as a means for achieving individual goals or specific technical goals. The latter sees education as representing holistic values (for example, values for character formation and cultivation of citizenship and showing the importance of learning itself).<sup>2</sup> For knowledge learned in school, educational content is sharply divided between empirical knowledge and academic/systematic knowledge (Gwynn 1947).<sup>3</sup> The shared principle between the two types of knowledge is “part and whole.” Academic/systematic knowledge has a closed system inherent in each specialized discipline. In contrast, instead of presuming totality of knowledge which is established by the historical accumulation of legitimized knowledge, empirical knowledge is confined to an individual’s social and historical environment. While the former emphasizes continuity and

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2 Max Weber discussed the essence of this dichotomy as “instrumental versus value rationality” (Brubaker 1984).

3 Empirical knowledge is often discussed in the context of progressive education which is distinguished from the traditional European curricula (Gwynn 1947).

legitimacy of knowledge, the latter places emphasis more on change and the practical application of knowledge to the real world.

For educational goals, the process from setting goals to assigning value to the agents who choose the means for achieving the goals has a “holistic” orientation. In other words, both the goals and the means to achieve the goals are charged with values. In contrast, providing methods to achieve individual goals is considered a “partial” orientation. By combining these two types of educational goals and two types of means of achieving the goals, four types of abilities are derived.<sup>4</sup> They are “generic,” “communal,” “nomothetic,” and “political.” The four types are defined as follows (see Figure 1):

1. Generic abilities apply empirical knowledge practically. Underlying them is the ability to master knowledge instrumentally as a means to solve problems one directly faces and to achieve specific goals. The purposes for which these abilities are used are thoroughly individualistic, thus moral and normative questions are not raised.
2. Communal abilities indicate the ability to read intentions and emotions of people who make up the situation at the moment. They represent the empathetic ability to establish inter-subjectivity in an instant with people who are situated in a set of circumstances, based not on rules or particular concepts of values or doctrines, but on experiential knowledge. The goal of communal abilities is to enable a person to take appropriate actions by allowing him or her to understand a changing situation. As the name implies, communal abilities are considered social skills to maintain order.

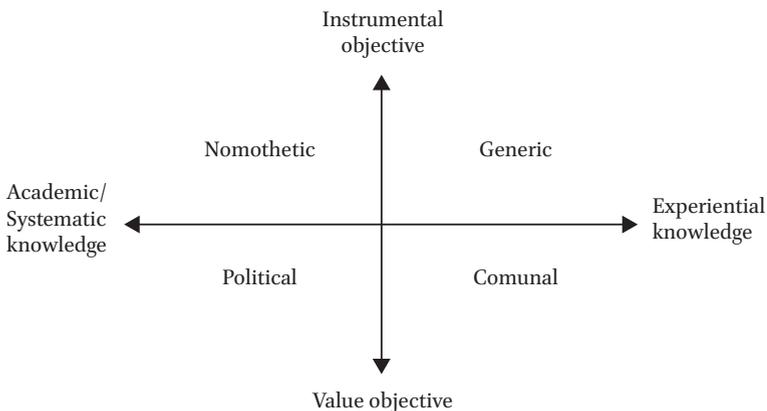


FIGURE 1 *Typology of Tested Abilities.*

4 The idea of constructing a typology by using indices of means and ends was inspired by Watanabe (2004).

3. Nomothetic abilities refer to abilities for understanding rules and laws. At the foundation of correctness is systematic knowledge (scientific, legislative, religious etc.) and strict rules to support it.
4. Political abilities refer to abilities to create new premises and views by combining shared existing knowledge and concepts. New views must be presented in accordance with agreed-upon “procedures.”

Using this proposed typology, this paper analyzes the university entrance exams of four countries: the American SAT, Japanese National Center Test, Iranian konkur and French baccalauréat. This paper specifically examine the literature section of the exams.

### **Entrance Examinations in the Four Countries: Systems and Abilities Tested**

This section reviews the characteristics and issues relating to measuring abilities by entrance examinations in the four countries.

The SAT was first used at the beginning of the twentieth century by prestigious private schools in the American East as an exam for giving scholarships to outstanding students from the Midwest.<sup>5</sup> As can be seen from the history of the transformation of the SAT, which developed from continuing improvements made by the psychologist Carl Brigham to IQ test questions, the test took on the qualities of an aptitude test, that is, a test for “potential for higher education,” without ties to elementary or secondary educational curricula. In contrast to achievement tests and essay exams, over which students from affluent families have an advantage, the SAT is designed so that there is less bias in scores between groups of different socioeconomic and cultural backgrounds. Based on the idea of “equal opportunity,” the deepest desire of American culture, the SAT is perceived as a scientific and objective method that connects rule by elites chosen not by one’s place of origin but by abilities. Nicholas Lemann (1999: 56) states that “abilities” in this case means intelligence measurable by tests.

However, the importance of exams the SAT itself is relatively low when its scores are evaluated alongside admission essays, high school grades, and extracurricular activities in the U.S. (Kaplan 2012: 5). In particular, admission essays are the most critical element for applying to prestigious universities (Lemann

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5 The SAT is originally an acronym of the Scholastic Aptitude Test, and then the Scholastic Assessment Test since 1990. The official name of the exam is simply “SAT.”

2011: 281), where students' future goals and their past experiences are expected to be related.

In contrast to the American SAT, Japan's National Center Test for University Admissions plays a critical role in admission. The test is based on the uniform nationwide curriculum and given once a year. Test-takers determine the universities of their choice based on the scores of the National Center Test, and each university administers a secondary exam. Although the National Center Test looks like an achievement test, it is not considered one. For example, Sasaki Takao (2012) ascribes the following characteristics to the exam: 1) It is not an exam designed to pass students with certain qualities and abilities, but rather to "winnow" applicants down to a number that can be accepted by a university; 2) for this reason it is a screening exam where every point is highly contested, allowing entry into a select group; and 3) accordingly, it is not a test that measures achievement in high school, like the baccalauréat, nor is it an aptitude test that measure abilities needed for higher education, like the SAT. It has been criticized by scholars, educators, and the government as an exam that almost exclusively measures the amount of memorized knowledge (Nakagiri 2010).

A counterargument to the criticism that the National Center Test is focused on the memorization of knowledge is that what is actually measured by the exam is students' character (Amano 2006, Nagao 1994). Diligence, fortitude, and endurance are nurtured through students' preparation for the test. These qualities are consistent with personal qualities demanded by business leaders and government officials. What companies and government officials seek is "trainability," that is the general ability needed to constantly acquire new knowledge and skills in response to constantly changing situations (Amano 2006: 293). Furthermore, work performance sought by companies is not clearly delineated nor can it be objectivized. It also bears no relationship to personal interests or areas of expertise. It is rather "general abstract ability" to faithfully carry out assigned work (Nagao 1994: 134–135). The standardized rank score that is measured by Japan's standardized exams as an index of "general abstract ability" has permeated society and education and gained widespread use. Because rise and falls in students' academic ability nationwide is a major issue of education in Japan, much research has propounded different views of academic ability. However, consensus has not been reached on the presupposition of the elements that make up academic ability and how it can be tested by examinations.

The Iranian *konkur*, from the French word *concours* (meaning competitive examination), is a standardized university entrance examination for applying public universities in Iran. The *konkur* is multiple-choice exam that covers all

subjects taught in Iranian high schools including Islamic studies. Each subject has 25 questions and applicants must answer 250 questions in total in four hours and thirty minutes. Since this exam is the sole criterion for the admission into public universities, which accept only about ten percent of all applicants, the competition is fierce. Students who wish to attend university spend a year to prepare for the exam in pre-university course after the completion of three-year high school curriculum (Sakurai 2004: 396). Private and semi-private universities administer their own entrance exams, which are similar to the *konkur* but less demanding.

Academic criterion (i.e., the *konkur*'s test score) was the sole standard for the selection until the Islamic Revolution in 1979. In order to achieve the ideals of the revolution – the establishment of “social justice” and the “Islamization of universities,” – candidates from socio-economically disadvantaged families or regions and from families ideologically committed to the revolution received preferential treatment (Sakurai 2004: 390). Giving priority to socio-economic and political criteria over academic criteria resulted in the over-distribution of academically less competent students in public universities, causing major discontent among competent students. Yet, the nature of the exam, a long multiple-choice test that covers a broad range of contents with no other types of test such as writing or oral exams, inevitably force all the students to concentrate on memorizing knowledge. It has also been pointed out that students must acquire test-taking techniques to achieve a high score in a limited amount of time, attending private institutes to be trained for the *konkur* is commonly observed.<sup>6</sup>

France's *baccalauréat* is a national diploma certifying the completion of upper secondary education. With this diploma, students can be accepted into universities. Furthermore, students can use it to apply for entrance exams for higher educational institutions and for various national exams (such as the civil service exam). It is an essential qualification for obtaining employment and status in French society (Vasconcellos and Bongrand 2013). The exam to obtain this qualification is also called the *baccalauréat*.

The most salient characteristic of the *baccalauréat* is that all the questions have to be answered in essay format. Even math and science exams require students to explain how they reach the answer. For humanities and social science subjects, written formats are strictly prescribed. Among the formats, a French-style essay called the *dissertation* is the most frequently used style.

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6 Information on Iranian *konkur* is extracted from (Sakurai 2007) and interviews with staff members at Meraat and Gozine2, major private educational institutes in Iran (April 29, 2014 in Tehran).

TABLE 1 *Overview of University Entrance Exams*

	the United States	Japan	Iran	France
Entrance exam	1. <u>The SAT (I &amp; II)</u> 2. Admission Essay 3. High school grades 4. Extracurricular activities	1. <u>National Center Test</u> 2. A secondary exam by individual university	1. <u>Konkur</u> (General and specific exams for 5 majors)	1. <u>Baccalauréat</u> (3 types: Bac <u>general</u> , technological, and professional)
Style of Exam	I. Multiple-choice + 25 min. essay test II. Multiple-choice	1. Multiple-choice 2. Multiple-choice + written exam	Multiple-choice	Long essay (3h 30 to 4h) + oral exam
Type of exam	Aptitude	Achievement	Achievement	Achievement + Aptitude
Abilities evaluated	Reasoning and basic knowledge of each subject	Knowledge of each subject	Knowledge of each subject	Thought process and broad historical knowledge

The dissertation was created at the end of the nineteenth century as a symbol of France's new society and education after the revolution (Chervel 2004). The dissertation required the writer to inductively connect existing knowledge with his or her own observations, and to uncover new relationships between knowledge and experience by thinking about the arrangements of these connections. Yet, it should be emphasized that although the dissertation expects a proposal of new presupposition due to its dialectical structure, it requires rigorous citations from legitimized knowledge, such as the classics. Thus, on one hand, the dissertation is considered a symbol of new society, while on the other hand, students proudly feel that they are the successor of the Greco-Roman tradition when they write dissertations (Sumitani et al. 2005: 76).

Bourdieu and Passeron (1977: 142) point out that the dissertation not only defines the rules of communication (i.e., writing and speaking), but also defines pedagogy and even knowledge in French society. Having the basic structure of the dialectic process, the dissertation is used for the entrance exam of *Grandes Écoles* and universities, for civil service exams, and for hiring tests by

companies. Without mastering this method of writing essays, it is impossible to gain socioeconomic status in French society (Bourdieu and Passeron 1977; Beaud 2006). It is no exaggeration to say that the curricula of compulsory education from kindergarten onward serve the purpose of preparing students, in stages, to write the dissertation (Watanabe 2012).

The National Center Test and the *konkur* are said to be exams testing memorization, the SAT to be an exam objectively testing aptitude based on intelligence, and the baccalauréat to be an exam testing thought process manifested in the dissertation. However, research has been limited in comparing them to clarify specifically what abilities are being tested. Thus in this paper, I compare literature exam questions. From these comparisons, I define the kinds of abilities measured by the literature exams using the proposed typology. Based on the past studies on entrance exams reviewed so far, the four exams are assumed to belong to the following types: the American SAT belongs to the generic type, the Japanese Center Exam to the communal type, the Iranian konkur to the nomothetic type, and the French baccalauréat to the political type (see Table 1 for the overview of exams in the four countries).

## Method

In order to examine abilities evaluated by the entrance exams in the four countries, this study focuses on the literature subject tests (“*Kokugo*” [literally “the national language,” i.e. Japanese] in Japan, “Persian language and literature (*adabyat*)” in Iran and “Français” in France). Literature is a required subject for university entrance exams in the four countries regardless of students’ major. Moreover, literature is directly connected to the official language (mother tongue), and the way it is analyzed (i.e., the characteristics of questions, preferred literary genres in the exams) significantly differs in each country.

For the comparison of literature subject tests, the following items are examined: 1) the structure of the exam (the quantity and quality of exam questions, that is, the number of questions, testing duration, the types of questions, and literary genres appearing in the exam), 2) tactics for getting right answers and the method of scoring exam questions. In order to compare these items, this study uses popular study guides, which analyze the past questions.<sup>7</sup> These

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7 Study guides used for analysis are listed in the end of reference. This study analyzes literature study guides for the baccalauréat général and for the konkur’s general exam for the humanity major.

books are not concerned about the ideal objectives of education, but rather focus on skills and attitudes that should be trained to obtain high scores in the exams. Thus, they reveal the de facto abilities necessary to pass the exams.

### Structure of Examinations and Abilities Being Tested

The structural characteristics of literature subject exam in the four countries are summarized in Table 2, and the classification of exam questions is shown in Figures 2 to 4.<sup>8</sup>

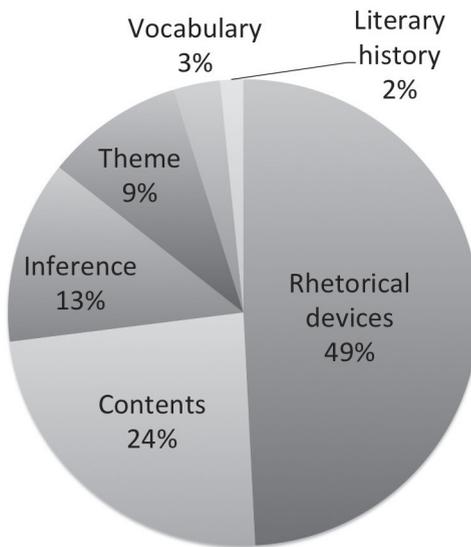


FIGURE 2 *American SAT Diagnostic Test.*

<sup>8</sup> The questions classified in the figures were drawn from the latest exam questions released to the public when this research was conducted. Since actual questions of the American SAT are not released to the public, questions in a diagnostic test in Kaplan (2012) were classified. The overall composition of literature subject exam questions has been fairly stable in the four countries, at least for the last 20 years (since 1990). The proportion of the Kokugo exam questions in Figure 3 is weighed by different points assigned to each question. Iranian konkur provides all the subjects exams in particular to five majors. This study classified and analyzed the questions for humanity major in 2014.

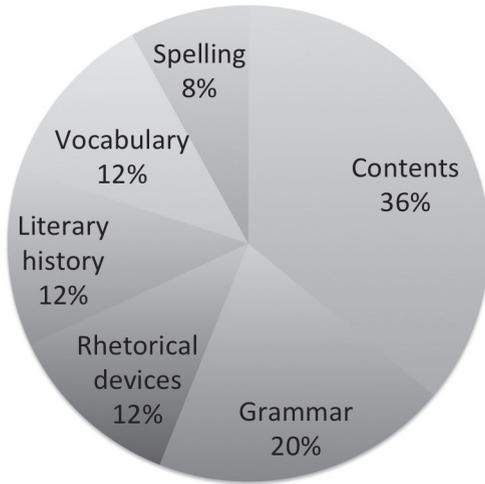


FIGURE 3 *Iranian konkur 2014.*

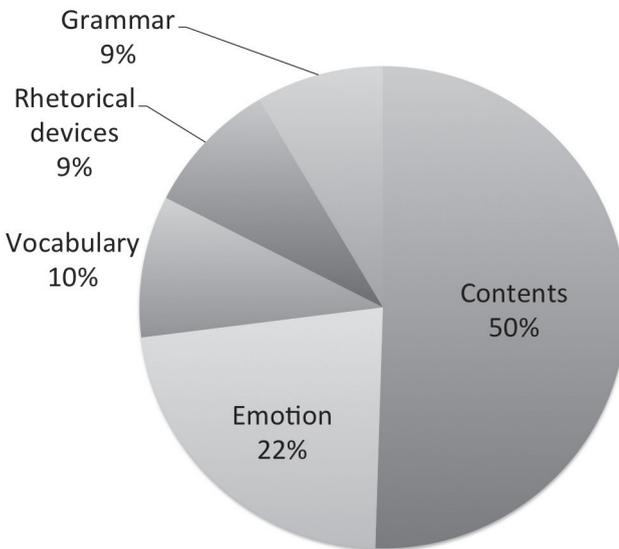


FIGURE 4 *Japanese National Center Test 2014.*

TABLE 2 *Overview of Literature Subject Exams and Abilities Tested*

	American SAT (Literature Subject Exam)	Japanese National Center Test (Kokugo)	Iranian konkur (Adabyat)	French Baccalauréat (Français)
Method	Multiple-choice	Multiple-choice	Multiple-choice	Long Essay + oral
Duration	60 min.	80 min.	17 min.	4 hours
No. of questions	60–63 questions	24–36 questions	25 questions	2 questions
Contents	Poem (50%) + Passage from any genres (50%)	Criticism Novel Classical Japanese lit. Classical Chinese lit.	Classical Persian literature	Poem, Novel, Drama 1. Comment 2. Dissertation 3. Creative Writing
Abilities tested	Effective- reasoning & <u>efficiency</u>	Empathy & <u>inter-subjectivity</u>	Knowledge on <u>rhetorical rules</u>	Dialectical <u>methodology</u>
Typology of abilities	<b>Generic</b> Quickly find the nature of info. and process it effectively	<b>Communal</b> Infer others' feeling and instantly create an “inner- community”	<b>Nomothetic</b> Identifying social and natural law by metaphors	<b>Political</b> Agreement on methodology for the creation of new premises

### 1 *Generic Type of Ability in Literature Subject Test in American SAT*

As the proposed typology shows, generic ability places a high value on experiential knowledge, which is applied to real life situations in order to achieve the objectives of the individuals.

The SAT's one-hour literature subject test contains approximately 60 multiple-choice questions based on six to eight literary passages.<sup>9</sup> About half of the passages are poetry and half are prose. According to a popular study guide, Kaplan (2012: 4), what the literature text is designed to measure is students' “close reading of texts” by asking questions about contextual meaning and

9 Basic information about the SAT and the literature subject exam is drawn from College Board (2006) and Kaplan (2012).

rhetorical devices such as narrative elements and form and genre. Thus, students are not required to memorize literary history or prominent writers and their works, but should rely only on textual support to answer the questions.

The classification of diagnostic test questions (Kaplan 2012: 29–55) in Graph 1 shows that rhetorical devices occupy the largest portion (49%). Thus it seems that comprehensive knowledge on literary knowledge is asked most frequently. Yet, close analysis reveals that questions are not concerned about memorization of comprehensive knowledge on rhetoric. Rather, what is measured in those questions is the ability to identify the nature of information and effectively process it. In the SAT literature subject exam, test-takers are expected to be familiar with and sensitive to a variety of literary genres because the genre informs the objective of the writing and the kind of styles and rhetorical devices used as means to achieve the objective. For instance, if a test-taker can identify that a given literary passage is a sonnet, s/he can know that the passage is discussing a topic rather than telling a story. Then the student can focus on looking for some discursive point (Kaplan 2012: 17). The genre is a quite useful tool to apply not only to literary passages but also to any type of information.

In fact, almost any literary genre may appear in the SAT literature subject text. Kaplan (2012: 10), enumerates 21 genres as examples. The selection criteria of literary passage is not whether the passages belong to a body of popular national literature or are well-known masterpieces; as long as the passage has “literary merit” and “inspires a variety of questions” (Kaplan 2012: 10), any type of work is presented. Only passages that rely too heavily on the reader’s knowledge of a certain culture or religion are excluded to assure fairness for students with various cultural and religious backgrounds. By dealing with a variety of genres, students are expected to handle versatile methods.

Another ability emphasized in the SAT is “inference.” That category occupies the second largest in the classification of exam questions (24 percent). A typical inferential question asks test-takers to infer what is happening outside of the scene in a given passage or what kind of action the narrator will take in the future. Based on a given passage, the test-takers make a logical inference on natural environment or human action. This skill aids in making predictions of the future by reducing uncertainty.

A piece of advice repeatedly found in study guides is to manage time wisely. Although all the study guides in the four countries mention the importance of time allocation for the exams, American study guides spend a considerable amount of pages instructing how time is to be spent on the SAT tests. For the SAT “swiftness” is considered a key to success: “Do read the passage briskly”; if you read slowly, “you could get so bogged down in the passage that you will lose its meaning” (Kaplan 2012: 8–11). Kaplan (2012: 6–7) further instructs

readers that the process to get the answer does not matter in the SAT; what matters is “only what your answers are.” Thus, the guide suggests skipping hard questions and quickly moving around to maximize the score. In actuality, the SAT has the largest number of questions with several long literary passages, swiftness becomes a major attribute required for the exam. Effective and efficient reasoning for versatile application helps students make swift judgments in real-life situations.

## 2 *Communal Type of Ability in Kokugo (Japanese Language) in the Japanese National Center Test*

For the communal type of ability, the objective is to maintain good order. Experiential knowledge contributes to achieving this end.

The kokugo portion of the Japanese National Center Test is composed of four sections: criticism, novels, classical Japanese literature, and classical Chinese literature.<sup>10</sup> Each section has six questions with further sub-questions for a total of approximately 32 questions. All the questions are multiple-choice and 80 minutes are given for kokugo exam.

Graph 2 shows that contents questions which ask the meaning of given literary passages occupies the largest portion in kokugo exam. The most salient characteristic of the kokugo exam is found, however, in the “emotion” category, which make up second largest portion (22 percent). These questions ask test-takers about the emotional state of characters appearing in reading passages of novels and classical Japanese sections. The test-taker must infer the feelings being experienced by characters from the description of nature and the depiction of their attitudes, actions and conversations. Here, emotions primarily mean the “inner state” of a character. Understanding an emotion means recognizing at certain points in time the state of a character who experiences changes as the novel progresses. From previous questions, we see that the questions are grounded in information about the expressions of characters, their tones, movements, their experiences and relationships with other characters up to the point of text. Multiple choices are given concerning this information. Because many points in the detailed information must be connected to make inferences, a high degree of cognitive skill is required. A study guide gives test-takers a warning that if one brings his or her personal values and morality and prevailing ideas into the reading, s/he will be ensnared by the test-makers (Kyogakusha 2014: 57). In other words, the questions test how faithfully the test-taker can read the text and make inferences.

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<sup>10</sup> All the information about the National Center Test is extracted from a study guide (Kyogakusha 2014).

As Ishihara Chiaki (2007: 234) observed, the nature of these questions results in the use of many modern realistic novels, which do not directly touch upon human emotions, but instead depict characters from an external point of view. Because of this trait of the exam, questions about literary history rarely appear. Instead of a common education like a body of national literature that appears in textbooks, the text passages appearing in the National Center Test are drawn from literature many students encounter for the first time when taking the exam. These passages, unknown to the vast majority of students, are deliberately used to determine whether one can quickly achieve inner communion with different people who share a variety of environments under different circumstances.

The National Center Test certainly measures more than “memorization of knowledge.” On the contrary, memorization does not work at all for this particular type of questions. Rather, the test problems are solved by accumulating experiential knowledge from reading novels, watching movies, having relationships with others and translating it to inter-subjective understanding of situations. That is one of the reasons for the criticism that persistent effort and technical study do not work for getting full marks on the Kokugo exam.

### 3 *Nomothetic Type of Ability in Adabyat (Persian Language and Literature) in Iranian Konkur*

The objective of the nomothetic type of ability is understanding social and natural law that reveal universal principles or truth. In order to achieve this objective, detailed and strict technical knowledge for understanding symbolic meaning is required.

The adabyat in the Iranian konkur has 25 questions. Eighteen minutes are given to answer the questions. Long literary passages are not presented; instead, a verse (a short extract from a poem) or a prose is presented for each question. In the case of the 2014 exam, verse was dominant (80 percent of the texts presented were verse).<sup>11</sup> All the texts were extracted from old Persian literature so that almost all of the words used in those extracts were extinct in contemporary Persian language. Therefore, students are expected to be familiar with various types of literatures from a vast period of time.

As an exam of language and literature, the adabyat section is composed of balanced portion of categories, from technical skills such as grammar and spelling to literary history and rhetorical devices and the interpretation of phrases. Among these categories, interpretation of verse occupies a plurality of

11 The question in 2014 was taken from “Konkur (Entrance Examination for Humanities General 2014)”. Retrieved September 24, 2014 from (<http://www6.sanjesh.org/download/sarg3/ensani/311-c.zip>).

the questions (36 percent). All the content questions present a verse extracted from an old literary work and ask students to identify the same meaning of the verse among four choices.

What is tested by the content questions is the ability to distinguish laws and principles that penetrate through different times and places. For instance, in the 2014 exam (Q. #19), a Persian verse “A gem if it is fallen in sewage will be still a gem, and if a dust particle reach to the high sky will be still a dust particle” was presented as a text. What the verse tries to convey is that a valuable thing or person is still valuable no matter its or his circumstances. By the same principle, a worthless thing or person has still no value no matter how high position it or he is in. The four verses presented as choices use diverse metaphors that come from religious, cultural, social, and natural scientific spheres from different time period.<sup>12</sup> Students are required to identify the same principle that penetrates the given texts despite these contextual differences. Yet, in order to understand the meaning of each text correctly, cultural, social, historical and religious knowledge is mandatory. In other words, each text is heavily culturally and historically laden so that it is difficult to understand the metaphorical and symbolic meaning of each text even though a person is fluent in Persian.

Another key knowledge required in the exam is rhetorical devices for understanding verses and prose. Various types of literary devices such as metaphors, paradox and contrasts have a proper place in verse. Although a number of old Persian words are no longer used, the forms and styles of verse are extant in contemporary literature and in society. These rhetorical rules are essential to understanding the meaning of old poems and literature. In fact, study guides for the language and literature exam primarily explain the rules of rhetorical devices, and examples of right and wrong answers are interpreted under these rules (Gozine2).<sup>13</sup> Poetry represents laws in terms of its rhyme, form, and structure. It also describes universal laws that penetrate different times and places in their own way.

#### 4 *Political Type of Ability in “Français” in Baccalauréat*

For the political type of ability, the objective is to present a new view of the individual based on shared academic knowledge and procedure.

The French section of the baccalauréat is an exam that requires the student to answer one general question (for maximum of 4 points) and write one major

12 In the case of Q. #19, all the passages are drawn from old Persian literatures, ranging from the thirteenth to seventeenth century.

13 Videos for lectures on Persian language and literature subject exam for humanity major. Gozine2. Retrieved September 30, 2014 from (<http://video.gozine2.ir/Media/Index/6051#1>).

essay (for a maximum of 16 points) within four hours on excerpts from three literary works (whose authors and titles are given). A total of 20 points can be obtained for the two questions, with 10 being the passing score. The student chooses a writing style from among three – “commentary” (*le commentaire de text*), “dissertation,” and “creative” (*l’écriture d’invention*) to answer an associated theme question. This methodology, particular to the baccalauréat, is the most salient trait of France’s exams. Since few students choose the “creative” writing style in actual baccalauréat exams, and neither do students practice this style in lycée, this paper focuses on the “commentary” and “dissertation” writing styles.<sup>14</sup>

For the commentary essay, the student first explains relationships between literary history and the author of the designated text, its genre, and its style (register). The student then determines the theme that s/he thinks best expresses the features of the text, and discusses the text. For the dissertation, the student answers a question on a theme that threads through the three pieces of text. For example, the question in 2013 was “Does the novelist need to depict characters who appear in the work as extraordinary persons?”<sup>15</sup> To answer such a question, the student is required to write using a dialectic structure in which s/he places the affirmative proposition in opposition to the negative proposition that there is no need to depict characters as extraordinary. The student then propounds a third view by changing the proposition. The affirmative and negative positions are now on the same ground but have a new meaning; a masterpiece often illustrates a common person who has extraordinary dimension.

What the two forms of writing have in common is the requirement for the writer to determine the essence of the question. A theme is set, called the *axe* for the commentary and the *problématique* for the dissertation, by the students themselves. To penetrate to the root of the question, a study guide recommends that students read the given texts meticulously (Rue de École 2007: 16). The students advance an argument in a dialectic manner, answering questions they poses themselves by setting two axes for the commentary and converting

14 For the “creative” essay, the student may be asked to rewrite a portion of a text from another point of view in a different genre, or discuss a theme with a designated style. The “creative” essay requires a deep understanding of genre and advanced skills to write in different styles, and is said to be the most difficult essay for earning points. As a result, students in lycée almost exclusively practice writing commentary essays and dissertations.

15 The question in 2013 was taken from “Sujets du bac de français 2013 Séries E et ES”. Retrieved March 15, 2014 from (<http://www.etudes-litteraires.com/bac-francais/2013/sujet-s-es.php>).

a theme into three propositions (thesis, antithesis, and synthesis) for the dissertation. Thinking about two antithetical positions leads to a third position as a result of changing one's assumptions. This method "must" be adopted to answer baccalauréat questions.

It must also be supported by the rigorous use of citations from the provided text and from past works. Knowledge of literary history is required to answer any of the questions. Furthermore, according to a study guide, students must also be able to point out features of works and authors from a broader background by connecting together European intellectual history, art history, and history (Rue de École 2007: 14–15). Delving into the foundation of common knowledge by following a predetermined structure requires deliberation that completely eliminates the presence of "self." In actuality, "Je/I" expressing the author's voice is found nowhere in long essays.

The commentary and dissertation are not simply "forms" of essay-writing. The shape of one's thinking is internalized through practicing these forms of writing. In other words, this thinking requires the ability to conceive ideas broadly by coming up with a new perspective while examining multiple points of view. Oral exams also require the student to present an interpretation using either of the two forms. There is a strict agreement on procedure, but the objectives to be achieved and end result of the arguments are open. Therefore, it is quite symbolic that study guides usually show two or sometimes three patterns of answer (i.e., flow of discussions) for baccalauréat (Rue de École 2007).

### Discussion and Conclusion

The new proposed typology enables us to see qualitative differences in abilities tested by university entrance exams. Conventional typologies classified exams based on the categorization of knowledge as either basic or specialized knowledge. However, by classifying knowledge as either systematic or empirical knowledge and adding indicators of how the different forms of knowledge are used for what kinds of purposes, it is possible to show qualitative differences in abilities being tested even when the same type of knowledge is being assessed. For example, previous typology placed the Japanese National Center Test and American SAT in the same category (Nakajima et al. 1998). However, the proposed typology reveals that the abilities being tested significantly differ in the two exams because of the different objectives attached to the exam.

Moreover, the proposed typology sheds light on new aspects of abilities tested in exams. The Japanese National Center Test and Iranian konkur have been criticized for only testing memorization of knowledge. However, as the

analysis of literature exams reveals, while the communal type of ability, represented in the National Center Test, measures the ability to use situational logic for the creation of an inner-collective by turning the reading of emotions in different situations into patterns, the nomothetic type of ability, exemplified by the *konkur*, tests the ability to grasp universal truth which penetrate in different times and places, based on the integration of rhetorical rules and broad historical, cultural and religious knowledge. In both cases, mere memorization does not work at all to arrive at a correct answer.

Furthermore, the proposed typology makes it possible to evaluate where to position new types of abilities such as OECD-championed twenty-first-century competencies and global competencies (Rychen and Salganik eds. 2003), which have especially gained attention since 2000. The proposed framework reveals that a view of abilities that emphasizes versatility more than acquisition of systematic knowledge is close to the generic American view. Furthermore, in the postmodern world, which is not subject to adherence to principles, communication is believed to be formed on the basis of inter-subjectivity (Luhmann 1996). If so, then we can expect that communal Japanese-style abilities will become valuable. In the midst of these trends, the French-style view of abilities, which emphasizes agreement in procedures without regard for agreement in purpose, creates new assumptions and concepts, and can be considered to be most promising for carrying out innovations, especially in the post-modern world. However, a view emphasizing nomothetic ability will remain independent.

What is shown by typologies of abilities is that these abilities are qualitatively autonomous. Thus, as Lemann (1999) observed, absent major social changes like wars, revolutions or paradigm shift, it is difficult to change exams. Yet, reform of the entrance examination is constantly attempted in many countries. The proposed typology will be useful for examining whether the objective of the reform is consistent with means to achieve it.

### Acknowledgements

Assistance in the local investigation of the Iranian *konkur* was provided by Mr. Moharram Naghizade of Meraat Educational Innovations Center. An introduction to Iranian education and society was provided by Professor Mohammad Reza Sarkar Arani of Nagoya University. I deeply appreciate their help.

## References

- Amano, Ikuo. 2006. *Kyoiku to Senbatsu no Shakaishi (Social History of Education and Selection)*. Tokyo: Chikuma Shobo.
- Beaud, Michel. 2006. *L'Art de la Thèse (nouvelle édition)*. Paris: La Découverte.
- Bourdieu, Pierre and Jean-Claude Passeron. 1977. *Reproduction: In Education, Society, and Culture*, translated by Richard Nice. London: Sage Publications.
- Brubaker, Rogers. 1984. *Limits of Rationality*. New York: Routledge.
- Chervel, André. 2004. "L'invention de la Dissertation Littéraire dans l'Enseignement Secondaire Français." *Pedagogica Historica* 40 (3): 261–277.
- College Board (ed.). 2006. *The Official Study Guide for All SAT Subject Tests*. New York: College Board.
- Durkheim, Émile. 1969. *L'évolution Pédagogique en France*. Paris: Presses Universitaires de France.
- Gwynn, Minor J. 1947. *Curriculum Principles and Social Trends*. New York: Macmillan Company.
- Hopper, Earl, I. 1977. "A Typology for the Classification of Educational Systems." Pp. 153–166 in *Power and Ideology in Education*, edited by Jerome Karabel and A.H. Halsey. New York: Oxford University Press.
- Ishihara, Chiaki. 2007. *Hidden Daigakujuken no Kokugoryoku (Secrets of Verbal Aptitudes Required in Entrance Examination)*. Tokyo: Shinchosha.
- Kaplan Publishing. 2012. *Kaplan SAT Subject Test: Literature 2013–2014*. New York: Kaplan Publishing.
- Kyogakusha (ed.). 2014. *2015 Nendoban Center Shiken Kakomon Kenkyu Kokugo (Analysis of Past Questions in the National Center Examination: Literature 2015)*. Kyoto: Kyogakusha.
- Lemann, Nicholas. 1999. *The Big Test: The Secret History of the American Meritocracy*. New York: Farrar, Straus and Giroux.
- Luhmann, Niklas. 1996. *Social Systems: Writing Science*. Princeton: Princeton University Press.
- Nagao, Akio. 1994. "Nihongata National Curriculum no Hihan to Bunseki (Criticism and Analysis of Japanese National Curriculum)" Pp. 115–164 in *Curriculum Politics: Gendai no Kyoiku Kaikaku to National Curriculum (Modern Educational Reforms and National Curriculum)*, edited by Michel Apple, Jeff Witty and Akio Nagao. Tokyo: Toshindo.
- Nakagiri, Masato. 2010. "Comparative Analysis of World History University Entrance Examinations in Japan and the U.S." *Bulletin of the Graduate School of Education and Human Development (Educational Sciences) Nagoya University* 57(1): 91–106.

- Nakajima, Naotada. 1986. *Sekai no Daigaku Nyushi (University Entrance Examinations around the World)*. Tokyo: Jiji Tsushinsha.
- Rychen, Dominique S., and Laura H. Salganik (eds.). 2003. *Key Competencies for a Successful Life and a Well-Functioning Society*. Kirkland, WA: Hogrefe & Huber.
- Rue de École. 2007. *Les Incontournables Bac Français 1<sup>er</sup>*. Paris: Achevé d'Imprimer.
- Sakurai, Keiko. 2004. "University Entrance Examination and the Making of an Islamic Society in Iran: A Study of the Post-Revolutionary Iranian Approach to 'Konkur.'" *Iranian Studies* 37(3): 385–406.
- Sasaki, Takao. 2012. *Daigaku Nyushi no Shuen (The End of Entrance Examination)*. Sapporo: Hokkaido University Press.
- Sumitani, Hirobumi et al. 2005. "Examen de Dissertation: Observations et Analyses." *Memories of Osaka Kyoiku University* v 53(2): 59–78.
- Turner, Ralph, H. 1960. "Contest and Sponsored Mobility and the School System." *American Sociological Review* 25(6):855–867.
- Vasconcellos, Maria and Philippe Bongrand. 2013. *Le Système Éducatif 5 édition*. Paris: La Découverte.
- Watanabe, Masako E. 2012. "The Dissertation and the Essay, Two Styles of Thought: Analyzing the Differences in the Structure of French and American Academic Writing." *Bulletin of the Graduate School of Education and Human Development (Educational Sciences) Nagoya University* 58(2): 1–13.
- Watanabe, Yasuo. 2004. *Why Do Organizations Form Groups?: Complex Structure and Behaviors of Japanese Business Groups from 1977 to 1998*. Ph. D. Dissertation, Department of Sociology, Columbia University.
- Weber, Max. 1946. *Essays in Sociology* edited by H.H. Gerth and C. Wright Mills. Oxford: Oxford University Press.

### Study Guides Used for Analysis

- College Board (ed.). 2006. *The Official Study Guide for All SAT Subject Tests*. New York: College Board.
- "Videos for lectures on Persian language and literature exam for humanity major" by Gozine2. Retrieved September 30, 2014 (<http://video.gozine2.ir/Media/Index/6051#1>).
- Kaplan Publishing. 2012. *Kaplan SAT Subject Test: Literature 2013–2014*. New York: Kaplan Publishing.
- Kyogakusha (ed.). 2014. *2015 Nendoban Center Shiken Kakomon Kenkyu Kokujo (The Analysis of Past Questions in The National Center Examination: Literature 2015)*. Kyoto: Kyogakusha.
- Rue de École. 2007. *Les Incontournables Bac Français 1<sup>er</sup>*. Paris: Achevé d'Imprimer.

**URL**

- “Konkur (Entrance Examination for Humanities General 2014).” Retrieved September 30, 2014 from (<http://www6.sanjesh.org/download/sarg3/ensani/311-c.zip>)
- ”Sujets du bac de français 2013 Séries E et ES.” Retrieved March 15, 2014 from ([duhttp://www.etudes-litteraires.com/bac-francais/2013/sujet-s-es.php](http://www.etudes-litteraires.com/bac-francais/2013/sujet-s-es.php))
- “Videos for lectures on Persian language and literature exam for humanity major” by Gozine2. Retrieved September 30, 2014 from (<http://video.gozine2.ir/Media/Index/6051#1>)