JAILA JOURNAL Vol. 4
(March 2018)

Interdisciplinary Analyses of Lifestyle-related Factors, Social Capital, and Proficiency in English as a Foreign Language Among Students at a University in Japan

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Abstract

This study examines observable tendencies and statistical associations between lifestyle-related factors and components of social capital, on the one hand, and variables for English language proficiency on the other. A survey was carried out at Doshisha University in July 2017 to collect the pertinent data from the students taking English language courses. The results illuminated that following variables, e.g., were associated with variables representing English language proficiency: (1) preference for music over sports, (2) classification of average weekly minutes spent studying English outside classrooms, (3) whether or not the respondent has family members, relatives, or friends who are good at English, (4) whether or not the respondent thinks that he/she has many friends, (5) whether or not the respondent has friends from other countries with whom English is used to communicate mutually, and (6) the number of days having been abroad. Not only the presence of similarities between language and music, but also the positive effects of specific social capital as manifested in the above-mentioned variables (3), (4), and (5) that promote the exposure to and the use of English language have been suggested, though positive effects of general social capital were not validated in this study. Other lifestyle-related factors of importance that had to be omitted from this paper shall be addressed in future studies.

1. Introduction

As one of the myriads of species inhabiting the third planet from the Sun in the Solar System of the Universe, humankind, also known to itself by the scientific nomenclature *Homo sapiens sapiens*, is impinged upon and influenced by innumerable factors throughout its mutable lifespans, especially with regard to behaviors and other observable actions or even covert phenomena such as thinking. Often, particularly when discourses on such influential factors take place, these variables—frequently termed, somewhat inaccurately, "determinants"—are divided into those deriving from nature and others resulting from nurture. In effect, this type of nature-nurture debate recurrently takes place in analyzing many aspects of human behaviors. Let us take learning—possibly one of the most important contributing factors to the development and maintenance of human civilizations and cultures—for example. Learning is affected not only by

a number of biological factors such as genetics and brain development/functions that may predispose us to learn one thing better than another or, in some cases, vice versa, but also by psychosocial factors including the level of motivation, other psychological or cognitive factors, and social forces that may be acceleratory, disadvantageous, or, in some cases, neither in the process of learning. Given such diverse influences upon our thoughts and actions, it is sensible and advantageous as well as fruitful to analyze human behaviors from interdisciplinary perspectives.

This study is one of such multidisciplinary endeavors. Employing eclectic or holistic perspectives, this study examines predictive associations relevant to language learning. Despite its interdisciplinary approach, however, if one were to classify this research into the binary categories of nature and nurture, it would be classed into the latter category: that of nurture or, more precisely, social science. This study employs the analytical lens of social science inspired by Charles W. Mills (Mills, 1959) in terms of its focus on social forces in general, and by Emile Durkheim (Durkheim, 1997) with regard to statistical observations in its methodology in particular. Despite the emphasis on sociological approach in the methods of this study, the variables dealt with in this study, in effect, are interdisciplinary in its scope and encompass several areas of social science and, more broadly, of liberal arts education, including biological science and statistics. Maintaining such eclectic perspectives, this paper addresses the general question, "What factors are relevant to the learning of a foreign language among university students in Japan?" More specifically, while retaining the preceding question as the foundation for a number of hypotheses, lifestyle-related factors and components of social capital are scrutinized with regard to their predictive associations in relation to English language proficiency as measured by TOEFL® scores, among students at a private university in Japan.

2. Methods

The questionnaire—composed of 61 questions—was created and implemented to collect data on the following five categories of variables: they are, (1) demographic factors, (2) factors related to opinions, (3) experience and lifestyle-related factors, (4) components of social capital, and (5) English language proficiency levels as measured by two scores of TOEFL®. Even though the data compiled for this study are extensive, the focus of this paper is placed on analyzing associations between experience as well as lifestyle-related factors, components of social capital, on the one hand, and the level of English language proficiency on the other, since the number of areas that can be covered in one paper is finite.

In this study, the experience and lifestyle-related factors in the questionnaire refer to the past experience and the routine activities that take place in the respondent's everyday life. The examples are: the experience of visiting or studying in another country, the number of average weekly minutes spent studying the English language outside classrooms, the number of minutes it

takes to commute to school as well as the respondent's activity during the commute, and whether the respondent prefers music or sports, whether or not the respondent plays video/computer games, and whether or not the respondent works part-time.

In addition, this study examines another sphere of social activities: the respondent's social capital both in and out of classrooms. In a generalized definition, social capital can be conceived of as representing the size and/or the strength of the network (Uchiyama, 2015). In this study, however, social capital encompasses resources and attributes of family members, relatives, friends, and others that may be beneficial to the respondents as well. The reason for the inclusion of social capital into this study is to scrutinize whether or not the components of social capital are in predictive relationships with productivity, which, in this study, refers to academic achievements based on TOEFL® scores. (For more details on social capital, see Putnam, 2001.)

Two scores of the TOEFL ITP® have been statistically analyzed in relation to the aforementioned items in the questionnaire to reckon potentially predictive relationships. The first set of the scores is that of the TOEFL® contained in the book entitled TOEFL ITP® Official Guide (ETS, 2012) which was carried out at the beginning of the semester in the English language courses. The test is conducted as an unofficial test in the first few weeks of the course to assess each student's then-current level of the English language proficiency. In the curriculum of the course, this first test is called the Pre-test so as to distinguish it from the second official TOEFL ITP®. In accordance with the curriculum, this nomenclature—the Pre-test—is maintained throughout this study, in order to facilitate the differentiation from the other test.

The second test is the official TOEFL ITP® conducted on July 1, 2017. Every student enrolled in the above-mentioned English language courses is expected to and is highly encouraged to take the TOEFL ITP® to get a sense of his or her progress in terms of the English language proficiency levels as measured by the two TOEFL® scores. It turned out that 82.7 percent of the students enrolled in the classes took the TOEFL ITP® conducted on the given date. With the consent of the respondents, the scores of these two tests have been analyzed in relation to the answers to the questionnaire for this study. As a measure to assess the strength/weakness of inter-variable associations, *lambda* was calculated to estimate predictive values between combinations of variables. *Lambda* is based on the proportionate reduction of error, resulting in values representing the strength or weakness of associations (Babbie et al., 2000).

2.1 Participants

The survey was conducted at Doshisha University in Kyoto, Japan. Formerly known as Doshisha English School, Doshisha University has a long history as an institution of higher learning in Japan, particularly among private universities in the Kansai region. The former entity of the university—Doshisha English School—was established in 1875 by one of the key educators of the Meiji era (1868-1912) in Japan, Joseph Hardy Neesima. It is probably safe to state that

Doshisha University's educational philosophy today would be quite different, had it not been for Joseph Hardy Neesima's extraordinary experience and astonishing feats exemplified by having become one of the first Japanese persons to receive academic degrees from universities in the United States of America in the late 19th century—that is, at a time when there were no precursors. In fact, his teachings and philosophy can be seen today as the main principles of the university: they are, liberalism, Christian principles, and internationalism (Doshisha University, 2017). (For more information on Doshisha University's history and philosophy, see Doshisha University, 2017; and Motoi, 2005.)

Since 2013, Doshisha University's Center for General and Liberal Education has held classes named Intensive Courses for TOEFL® (I.C.T.). The I.C.T. are elective courses consisting of Practice and Tutorial classes, both of which are offered and taken as a set: i.e., the enrollees must take both the Practice and the Tutorial Courses, for one unit each of academic credit. Put simply and succinctly, the Practice course focuses on improving English language proficiency as measured by the TOEFL ITP®, while the Tutorial course is designed to foster and cultivate skills needed to raising scores on TOEFL iBT® which includes integrated tasks in speaking and writing. For pedagogical purposes, the maximum number of every I.C.T. class is limited to 20 students. (For more details on specific activities of I.C.T., see Maruta et al., 2016.)

At Doshisha University's Imadegawa and Kyotanabe Campuses, the data were collected from students taking English language courses. In the sampling procedure of the present study, 14 pairs from the total of 24 combinations of I.C.T. classes in the Spring Semester of 2017 have been selected for the data collection. Of the 14 sets of classes, 12 pairs were offered at Imadegawa Campus, while two sets were taught at Kyotanabe Campus. In total, the data were collected from 113 respondents, inclusive of those who submitted partially complete responses. The majors of the respondents can be classified as follows: (1) science and mathematics (8.8 percent) e.g., Mathematical Sciences, and Chemistry; (2) social sciences (73.5 percent) such as Psychology, Policy Studies, Sociology, and Global and Regional Studies; and (3) humanities (17.7 percent) including Philosophy, and English Literature.

3. Results

Table 1 lists figures for sample descriptions. As it is highly noticeable, female students had a higher representation than the male counterparts. In terms of the academic year, the first-year students, by far, had the highest percentage, followed by the sophomore. There have been steadfast tendencies for the first-year students to outnumber any other grade, and are followed by the sophomore.

Table 2 enumerates combinations of variables involving lifestyle-related factors that have demonstrated relatively high predictive values in terms of *lambda*. Notice that the first set on the list for this category is not directly related to the English language per se, as it is about the

preference for music over sports. Notwithstanding the apparent irrelevance of this set to the English language, they—music and language—are of course related to each other, as some prior studies have concluded not only in terms of the role and the functions of the brain in these activities, but also how the skills of each are acquired in a generic sense. On the other hand, the second pair on the list is literally about the time spent studying the English language outside classrooms: that is, the predictive relationship between the Pre-test scores and the classification of the average weekly minutes spent studying English outside the classrooms. Conceivably, no one would be puzzled to see the combination on the list. The average time span in minutes has been classified into (1) 0 minute, (2) 1-60 minutes, (3) 61-120 minutes, and (4) 121 minutes or more.

■ **Table 1: Descriptive Statistics of the Respondents** (*N* = 113)

Variable		Valid Number	Valid Percentage
Gender			
	Male	45	39.8
	Female	68	60.2
Academic Year			
	First-year (or Freshman)	98	86.7
	Sophomore	11	9.7
	Junior	3	2.7
	Senior	1	0.9

■ **Table 2: Experience and Lifestyle-related Factors**

Independent Variable	Dependent Variable	*Lambda*	Value of Significance
Pre-test Score	Whether the respondent prefers music or sports	0.580	0.000
Pre-test Score	Classification of the average weekly minutes spent studying English outside the classrooms	0.507	0.000
Pre-test Score	Whether or not the respondent studies during commuting	0.489	0.000
TOEFL ITP® Score	Whether the respondent has spent less or more than 60 minutes studying English per week outside the classrooms	0.457	0.000

Table 3 in the following page lists notable results involving variables classified as components of social capital. The first and the last items on the list can be classified not only into the category of social capital, but also into "family capital" as Li called it (See Li, 2006) or the social environment within the respondent's family. The second combination may be perceived of

as representing horizontal social capital, or the link between homogenous or similar individuals, and the third as bridging social capital which connects individuals across social divides—that is, in this case, prefectures.

■ **Table 3: Components of Social Capital**

Independent Variable	Dependent Variable	*Lambda*	Value of Significance
Pre-test Score	Whether or not the respondent has family members or relatives who are good at English	0.571	0.041
TOEFL ITP® Score	Whether or not the respondent thinks he/she has many friends	0.500	0.001
Pre-test Score	Whether or not the respondent has friends from other countries with whom English is used to communicate mutually	0.486	0.014
Pre-test Score	The parents' level of the English language proficiency as reported by the respondent	0.408	0.000

■ **Table 4: Predictive Variables of TOEFL® Associated Outcomes**

Independent Variable	Dependent Variable	*Lambda*	Value of Significance
The number of days having been abroad	Whether or not the respondent has the score of 523 on TOEFL ITP®	0.600	0.012
The number of days having been abroad	Whether or not the respondent has the score of 500 on TOEFL ITP®	0.467	0.002
The number of friends from other prefectures	Whether or not the improvement is seen in the scores of the Pre-test and TOEFL ITP®	0.400	0.011
The number of friends from senior high school days	Whether or not the improvement is seen in the scores of the Pre-test and TOEFL ITP®	0.333	0.022

Table 4 is a list of prominent results with TOEFL® Associated Outcomes. Since the dependent variable in each of the combinations is a binary and categorical one, as in other tables, all results are of *lambda*, which is an appropriate measure of association for nominal or categorical variables. An intriguing fact is that the first two pairs on the list are related to the experience and

the period of having been abroad, while the latter two are related to social capital, albeit the levels of the associations are rather modest.

Discussions

The combination of variables between "Pre-test Score" and "Whether the respondent prefers music or sports" in Table 2 can be interpreted as follows: knowing the Pre-test score of a respondent would, in theory, help predict whether the respondent prefers music or sports by 58 percent better than not knowing the independent variable. In the context of this study, this value is very high, and certainly deserves a scrutiny. The supplemental analyses revealed that when the respondents were divided into two groups—one with the TOEFL ITP® score of 500 or over, and the other below the threshold—65 percent of those receiving 500 or higher preferred music to sports, while the counterpart for those preferring sports to music was 35 percent. Moreover, when the cut-off point was raised from 500 to 523—the latter of which is the approximate minimum score for the eligibility of intramural scholarship programs for studying abroad—nearly 73 percent of those receiving the score of 523 or higher preferred music to sports, in contrast to an approximate 27 percent for those choosing sports over music. Nonetheless, the difference between those preferring music to sports and those choosing sports over music became somewhat slighter when the respondents were classified into the binary categories of (1) those who have made progress in terms of the difference between the TOEFL ITP® Test Score and the Pre-test Score through the course of the semester and (2) those whose scores did not improve over the course of the semester: approximately 55 percent of those making progress in terms of the test scores preferred music to sports, while the rest of the 45 percent picked sports as their preference. In short, the proportions of students who prefer music to sports are more highly represented in the three grouping patterns described above—those scoring 500 or over, 523 or over, and those making progress in the course of the semester—than those who like sports better than music.

Now the question one might ask is this: Why is there a preponderance of students who prefer music to sports among those classified as having received higher scores or having made progress in terms of the two tests? One could surely approach this question from diverse perspectives. Neurobiological approaches offer intriguing findings on similarities between music and language processing in the brain. For example, Brown and colleagues conducted a study wherein subjects—amateur musicians—were assigned tasks in music and language, and subsequently made comparisons with the use of positron emission tomography (more commonly known as PET); They found that a direct comparison of the sets of responses to the two kinds of tasks yielded a conclusion that nearly identical areas of the brain—including Broca's area, primary motor cortex, ventral thalamus, and posterior cerebellum—were activated (Brown, 2006). Language processing, too, has been known to be associated with the Broca's area in the frontal lobe.

Furthermore, another study by Koelsch et al., employing functional magnetic resonance imaging (fMRI) on non-musician subjects, found that cortical network—including Broca's as well as Wernicke's areas—that had been previously thought to be exclusively active in language processing is also active in processing of musical information (Koelsch, et a., 2002). Other scientific studies with empirical results evincing commonalities between language and music include an experiment by Atherton and associates utilizing a cognitive approach (Atherton et al., 2018), as well as another by Milovanov and collaborators focusing on neural processing in children with differing levels of musical dexterity and linguistic skills (Milovanov et al., 2008).

In addition to the above, studies and opinions abound in supporting the existence of similarities between music and language. Not only a veteran instructor of the English language in Japan, but also a seasoned musician himself, Eve articulates in his study that jazz musicians who actively and constantly create music through improvisations are more aware of rhythms not only in music but also in conversations than musicians who play pieces of music through a *prima vista* or sight-reading (Eve, 2017). It is also noteworthy that some of the terminology used in music such as "call and response" in jazz music also seem to attest to the similarities between music and language. Moreover, Miles Davis (1926-1991), one of the great masters of jazz as well as social music, stated in one of the interviews that one has to learn a bunch of *clichés* for one to become a musician (All Man Corp, 2010), which, interestingly, is also how infants and children acquire a language in the very general sense, not to mention how some foreign or second language learners get closer to the mastery of their target language. One typical way infants learn a language is through imitating sounds and utterances of people around them. As they grow more into childhood, it appears that many of them attempt to mimic facile sentences and phrases that adults in their lives use. In short, they—as well as many second and foreign language learners—develop their skills in language and communication through learning *clichés* at some points in their linguistic development. Furthermore, it is perhaps worth mentioning herein that, in both language and music, listening is an important skill that needs training and cultivating.

The next significant category of variables for discussion is social capital. In Table 3, one can see that "TOEFL ITP® Score" has a high predictive value for the variable "Whether or not the respondent thinks that he/she has many friends." Moreover, in the same table, it became evident that the variables "Pre-test Score" and "Whether or not the respondent has friends from other countries with whom English is used to communicate mutually" are in a predictive relationship, while the former being the explanatory factor and the latter the dependent variable. It is curious and unexpected to see that these independent variables were predictive of the respective outcome variables; Had the direction been reversed—that is, e.g., if the variable "Whether or not the respondent thinks he/she has many friends" is predictive of the "TOEFL ITP® Score"—that would have seemed more intelligible and sensible. Nonetheless, *lambda* is an asymmetrical measure, and, hence, the predictive value cannot be applied to the reverse direction. Curiously, a closer examination of the outcomes of the survey has revealed some intriguing facts.

It is certainly not difficult for one to hastily assume that people who think they have many friends would score higher on the English language proficiency test than those who do not, since it is a common impression that having an extroverted personality may facilitate the acquisition of a foreign or second language in comparison with the case of possessing introverted dispositions. It is conjectured that there are situations or examples that would be congruent with this impression particularly with regard to speaking. Nonetheless, the data and the results of this study indicate otherwise—that is, the respondents who do not think that they have many friends tend to have higher scores than those who do.

The exploratory analyses have illuminated that the mean TOEFL ITP® score of the respondents who think they have many friends is 477, whereas that of the respondents who do not think they do is 484. The median value for the former group is 473, the latter 477. Moreover, the minimum and maximum scores for each group are 413 and 567 for the former group, and 383 and 573 for the latter group, respectively. To verify or nullify the involvement of chance factors in the difference in mean values, an independent *t*-test was performed to compare the mean scores of the samples who responded that they had many friends and of those who answered otherwise. The two-tailed significance value turned out to be 0.380, which can be interpreted to mean that sampling error alone might have produced the difference in mean values in 380 out of 1,000 samples. Concisely put, the results of the *t*-test indicate that there was no significant difference between the two groups—the former (M = 477, SD = 34) and the latter (M = 484, SD = 41)—in the conditions t (100) = 0.88, p = 0.38. In short, despite the predictive value of *lambda* between the two variables, the results on their difference in mean values do not reject the null hypothesis.

Likewise, with respect to the combination of "Pre-test Score" and "Whether or not the respondent has friends from other countries with whom English is used to communicate mutually," the additional analyses elucidate some interesting facts to the following effect. When the respondents are divided into the binary categories of (1) those who answered that they have friends from other countries with whom English is used to communicate mutually and (2) the others who answered that they do not have such friends, the average "Pre-test Score" for the former group was 462, while the latter turned out to be 443. The median values are 470 for the first group, and 443 for the second. The minimum and maximum scores for each group are 390 and 583; 317 and 553 respectively. It is clear that the former group had higher values than the latter group in all of the above-mentioned descriptive statistics. However, when an additional independent *t*-test was executed to compare the mean values of the two groups—the first with respondents who have friends to speak with in English and the second group without such friends—it yielded a two-tailed significance value of 0.058. This value could be reckoned to mean that the difference in the mean values could have resulted by sampling error alone in 58 out of 1,000 samples. Notwithstanding this value being in proximity with the conventional level of p-value, 0.05, it must be critically appraised that, in terms of the mean values, there was no significant difference between the two groups—the former (M = 462, SD = 52) and the latter (M =

443, SD = 45)—in the conditions t (99) = 1.91, p = 0.058.

Put succinctly, the difference in mean values between the two groups in each of the preceding cases is not verified by the *t*-tests. It should be heeded, however, that mean values in isolation do not necessarily highlight the entirety of the situation but rather a fragment of it, in spite of the fact that they may help us comprehend certain phenomena better than without them. It is important and essential that one interpret the outcomes while recognizing and acknowledging the possible involvement of subjectivity—that is, in lieu of taking objectivity for granted. One of many possible ways to construe the predictive relationships between the two sets of variables described above is that having friends to speak with in English was associated with higher Pre-test scores, but having many friends per se was not associated with higher TOEFL ITP® scores. Hence, based on the preceding observation, social capital seems to work best when the network is utilized for supporting a specific aspect of the student's life—that is, in this instance, the acquisition of the English language—rather than for erratic, aimless, or non-selective purposes.

As mentioned above, the specific components of social capital in this study seem to be associated with the possible facilitation of the learning of the English language among the sample population of the study. This relationship appears to be consistent with the first and the fourth combinations in Table 3, involving the variables "Whether or not the respondent has family members or relatives who are good at English" in the first combination, and "The parents' level of English proficiency as reported by the respondent" in the fourth. Examining Chinese immigrant families in Western Canada, Li identified that the family's educational background, occupation, the community in which they live, their level of acculturation into the host country, and other situational circumstances influenced the acquisition of the second language—in this case, English—at home (Li, 2007). Even though the situations surrounding the respondents in the present study and those of the informants in Li's study are clearly not identical, the factors she identified in her study, which she called "family capital," appear to be at work in at least some of the respondents in the present study as well. In particular, the family members' educational backgrounds and the levels of acculturation in Li's study seem relevant or are related to the variables "Whether or not the respondent has family members or relatives who are good at English" and "The parents' level of the English language proficiency as reported by the respondent" in the current study.

Prior to concluding this study, notable results—particularly those highlighted in the current section—shall be summarized. First, one of the outstanding results yielded in the present study is the association of the Pre-test score with the preference for music over sports. Pertinent studies have offered insights elucidating the similarities between language and music from perspectives ranging from neurobiology to musicology. It has become evident that more studies examining the association are needed in view of realizing a controlled meta-analysis in the future. As a pedagogical suggestion, the utilization of music in classrooms may be effective if properly implemented. Second, associations between indicators of English language proficiency and

specific components of social capital have shown the importance of the social capital variables in the respondent's social environment, including family, relatives, and friends. This set of outcomes seems to indicate the importance of having goal-oriented—i.e., methodical and purposeful—social capital in the respondent's close network. Forming study groups outside classrooms and participating in programs for assisting foreign students on campus, for example, shall be encouraged to establish and expand the student's network, which may, in turn, provide the student with more opportunities for using—hence practicing—the English language.

Finally, the authors wish to state that this study is not without limitations. For instance, the way in which Pre-test is carried out is not rigorously controlled to ascertain high reliability and validity. As of 2017, the Pre-test has to be conducted in two or three successive lessons/lectures, instead of carrying the whole test out on one occasion in a stringently controlled setting; nevertheless, the availability of the Pre-test scores is definitely an advantage in terms of getting a sense of the students' levels of proficiency as well as having the students familiarize themselves with the patterns of the TOEFL ITP® questions. Notwithstanding the shortcomings, the authors hope that the present study will provide the readers with information of pragmatic values.

Acknowledgements

The authors wish to express gratitude to the students at Doshisha University who participated in the survey; appreciation is extended to the I.C.T. committee members, instructors and staff members whose steadfast contributions to the program are essential. We also wish to thank Mr. Shoichi Maruta for having cooperated with part of the data collection for this study.

References

All Man Corp (2010). Miles Davis in His Own Words, the United States of America, Youtube, Retrieved from: https://www.youtube.com/watch?v=XWLBApLtyy, Accessed on October 16, 2017.

Athewrton, R.P., Chrobak, Q.M., Rauscher, F.H., Karst, A.T., Hanson, M.D., Steinert, S.W., & Bowe K.L., (2018). Shared Processing of Language and Music, the United States of America, *Experimental Psychology*, Hogrefe Publishing Corp., Volume 65 (1), pp. 40-48.

Babbie, E., Halley, F., & Zaino, J., (2000). Adventures in Social Research, the United States of America, Pine Forge Press.

Brown, S., Martinez, M.J., & Parsons, M., (2006). Music and Language Side by Side in the Brain: A PET Study of the Generation of Melodies and Sentences, Belgium, *European Journal of Neuroscience*, Federation of European Neuroscience Societies and Blackwell Publishing Ltd., Volume 23, pp. 2791-2803.

Doshisha University, (2017). Conscience Education and Educational Philosophy, Japan,

Doshisha University, Retrieved from: https://www.doshisha.ac.jp/information/history/educational_ideal.html, Accessed on October 1, 2017.

Dufur, M. K., Parcel, T. B., & Mckune, B. A., (2008). Capital and Context: Using Social Capital at Home and at School to Predict Child Social Adjustment, the United States of America, *Journal of Health and Social Behavior*, American Sociological Association, Volume 49, pp. 146-161.

Durkheim, E., (1997). Suicide: A Study in sociology, The Free Press (Reissue).

ETS (2012). TOEFL ITP® Official Guide, Japan, Kenkyusha.

Eve, R. (2017). Similarities between Prosodic Structures in Language and Rhythmic and Melodic Structures in Music, Japan, *JAILA Journal*, The Japan Association of International Liberal Arts, Volume 3, pp.51-62.

Israel, G. D., Beaulieu, L. J., & Hartless, G., (2001). The Influence of Family and Community Social Capital on Educational Achievement, the United States of America, *Rural Sociology*, Rural Sociological Society, Volume 66 (1), pp. 43-68.

Koelsch, S., Gunter, T.C., Cramon, D. Y., & Zysset, S., (2002). Bach Speaks: A Cortical "Language-Network" Serves the Processing of Music, the United States of America, *NeuroImage*, Elsevier Science, Volume 17, pp. 956-966.

Li, G. (2007). Home Environment and Second-Language Acquisition: The Importance of Family Capital, the United Kingdom, *British Journal of Sociology of Education*, Routledge Taylor and Francis Group, Volume 28 (3), pp. 285-299.

Maruta, S., Izumi, E., & Kojima, N., (2016) "Intensive Courses for TOEFL" no Torikumi, Japan, *Annual Report of Center for Learning Support and Faculty Development*, Doshisha University, Volume 7, pp. 76-88.

Mills, C.W., (1959). The Sociological Imagination, the United States of America, Oxford University Press.

Milovanov, R., Huotilainen, M., Valimaki, V., Esquef, P.A., & Tervaniemi, M., (2008). Musical Aptitude and Second Language Pronunciation Skills in School-aged Children: Neural and Behavioral Evidence, the Netherlands, *Brain Research*, Elsevier, Volume 1194, pp. 81-89.

Motoi, Y., (2005). Niijima Jo To Kengaku Seishin, Japan, Doshisha University Press.

Putnam, R. D., (2001). Bowling Alone, the United States of America, Simon & Schuster.

Silva, R.B. da, (2007). A Brief Discussion on the Biological Factors in the Acquisition of Language, Brazil, *Revista do GEL*, S.J. do Rio Preto, Volume 4 (2), pp. 153-169.

Uchiyama, H., (2015). Prefecture-level Social Capital in Japan: An Interdisciplinary Perspective, Japan, *JAILA Journal*, The Japan Association of International Liberal Arts, Volume 1, pp. 26-37.

Yang, H., (2017). The Role of Social Capital at Home and in School in Academic Achievement: The Case of South Korea, South Korea, *Asia Pacific Education Review*, Volume 18 (3), pp. 373-384.