

Attitudes of Cambodian Teachers and Students' Guardians toward School Education:

Cambodia–Japan–US Comparison

Takuhiko DEGUCHI

(Department of School Education, Nara University of Education)

Abstract: This study compared the attitudes of schoolteachers and students' guardians toward school education in Cambodia, Japan, and the US. Questionnaires and web surveys comprised items measuring their attitudes toward teachers and the aim of school education and reported household incomes. Surveys were conducted among 456 elementary or junior high schoolteachers and 429 guardians in the three countries. A cluster analysis revealed five kinds of attitudes toward teachers, including "cooperation" and "classroom management." "Cooperation" indicated "to encourage children to mutually cooperate while learning," and it was shared by American and Cambodian teachers and guardians. Regarding Japan, several teachers and guardians had the attitude of "classroom management," which valued "to guide children so that they can get along well with one another." For the attitudes toward the aim of school education, "interpersonal aim" was valued by Japanese and Americans, and "academic aim" was emphasized by Americans and Cambodians. Moreover, some differences were observed due to household incomes in Cambodia; as guardians' household income was lower, they did not emphasize the "interpersonal aim." To prevent social problems such as bullying (Maeda, & Voy, 2013, 2014), it is important to also focus on "classroom management" attitude and "interpersonal aim" in Cambodian teacher training.

Keywords: Cambodian Teachers and Students' Guardians

Attitudes toward School Education

International Comparison

1. Introduction

This study^{1), 2), 3)} investigated the attitudes of Cambodian schoolteachers and students' guardians toward school education with questionnaires and web surveys. In Cambodia, school education is not conducted adequately due to the civil war as many schoolteachers were executed under the Pol Pot administration (Hirayama, 2012; Ono, 2020). The estimated number of teacher survivors in primary school was 2,800 and that of lower secondary was 207 (Shimizu, 1997; Takahashi & Utsumi, 1996).

As of 2017, 18 Provincial Teacher Trainer Centers (PTTC) and 6 Regional Teacher Trainer Centers (RTTC) trained primary school teachers or lower secondary school teachers, respectively (Ono, 2020). These institutes used the 2-year system "12 + 2," meaning 12 years from primary to upper secondary schools plus 2 years in PTTC or RTTC (JICA, 2017; Ono, 2020). However, more than 80% of the PTTC students' "grade 12 exam results" (A: Excellence, B: Very Good, C: Good, D: Satisfactory, E: Limited Achievement, F: Fail) and about 70% of the RTTC

ones were D or E (Tandon & Fukao, 2015). Against this background, the Ministry of Education Youth and Sport (MoEYS) is making the teacher training course a 4-year system called "12 + 4" (JICA, 2017; Ono, 2020).

In addition, the Japan International Cooperation Agency (JICA) has been supporting this change through the project for Establishing foundation for Teacher Education College (E-TEC) since 2017 (JICA, 2017). PADECO Co., Ltd. and INTEM consulting, Inc. are also taking part in this project (e.g., PADECO Co., Ltd., 2021), and the Nara University of Education is making syllabi, lesson plans, and teaching materials for science, mathematics, information and communication technology (ICT), English, pedagogy, and psychology⁴⁾ under consignment of these companies (Nara University of Education, 2018).

The Nara National Institute of Higher Education and Research (2022) states that the Nara University of Education places importance on achieving the Sustainable Development Goals (SDGs; United Nations, 2015; United Nations Department of Global Communications, 2020) through Education for Sustainable Development (ESD; United Nations

Educational, Scientific and Cultural Organization, 2020). The E-TEC project would be related to the fourth goal of the SDGs, “Quality education” (Noda, 2019).

In Cambodia, the “classroom” primarily focuses on subject learning, while social issues such as building students’ personalities and making friends are only relatively emphasized (Ogisu, 2016). However, bullying among students was reported in Cambodian primary schools (Maeda, & Voy, 2013, 2014), and focusing on social issues is thus needed for quality classroom management. Nonetheless, few studies have investigated what is needed by schoolteachers and students’ guardians for Cambodian school education from a psychological point of view.

Therefore, the present study determined what schoolteachers and students’ guardians in Cambodia consider important for school education and makes a comparison with Japan and the US. In addition, the SDGs include “No poverty” as their first goal (e.g., United Nations, 2015; United Nations Department of Global Communications, 2020), and Matsuoka (2014) reported that parents’ socioeconomic status (SES) were relevant to the frequency of their communication about school (asking the children what they are learning in school). Thus, this paper also addressed the relationships between teachers and guardians’ attitudes and their SES.

2. Method

2. 1. Respondents

The questionnaires and web surveys were conducted among Cambodian, Japanese, and American schoolteachers and students’ guardians; 496 elementary (primary), junior high (lower secondary), or senior high school teachers (Cambodia: 150; Japan: 170; US: 176) and 484 guardians (Cambodia: 150; Japan: 170; US: 164) participated in the surveys. The schools of teachers and students’ guardians were not paired (not the same). Only the American participants included senior high school teachers and students’ guardians due to the different education systems of Cambodia and the US.

2. 2. Variables

Attitudes toward school education were investigated in two categories: “attitudes toward teachers” and “attitudes toward the aim of school education.” In addition, “household income” was investigated as the

respondents’ socioeconomic status.

- (1) **Attitudes toward Teachers:** 16 items were created based on the “curriculum framework of general education and technical education” (Department of Curriculum Development, 2016) and the “teacher training core curriculum” (Investigating Commission on the State of Teacher Training Core Curriculum, 2017). In addition, the literature about cooperative learning (Johnson, Johnson, & Holubec, 2010; Sharan & Sharan, 1992) was referenced.

The items were of two types: for study and for classroom management. The former category included items such as “To make children memorize the content of lessons efficiently,” “To assess children’s academic skills accurately,” “To enhance children’s motivation for learning,” and “To encourage children to cooperate with one another in learning.” The latter comprised items such as “To encourage children to acquire decent lifestyle habits,” “To deal with ‘bullying’ and ‘acts of violence,’” “To guide children so that they can get along well with one another,” and “To maintain children’s mental health and to listen to and solve children’s problem skillfully.”

The respondents were asked to rate the degree of the items’ importance as teachers’ behavior on a 6-point scale. In addition, they were requested to choose five items in order of importance.

- (2) **Attitudes toward the Aim of School Education:** Eight items partly modified from Deguchi and Yoshida’s (2005) items were used. They included items for academic and interpersonal aims. The former comprised four items, such as “To conduct studies that will be useful for children’s future” and “To conduct studies required to obtain qualifications and licenses in future.” The latter also comprised four items, such as “To get acquainted with many different kinds of people” and “To make friends.” The respondents were asked to rate the degree of the items’ importance on a 6-point scale. Then, they were requested to choose three items in order of importance.
- (3) **Household Income:** Annual household income was reported with the currency (riel, yen, or US dollar) of the respondents’ countries. In Cambodia, not only riel (Cambodian unit) but also US dollar circulates; thus, household incomes were reported in either currency.

2. 3. Procedure

Regarding Cambodia, the questionnaire survey was conducted on June 2018 by CROSSINDEX corp. As for Japan and the US, the web surveys were conducted on March 2019 and commissioned to the JMA Research Institute inc. The languages used in each of the surveys were their countries' official languages (Khmer, Japanese, and English). Translation from the Japanese language was conducted by CROSSINDEX corp. When making the questionnaire for Cambodia, the items in Japanese were translated into English first; then, the ones in English were translated into Khmer. Before conducting the surveys, the research plans were reviewed by the ethics committee for research involving human participants, and permission to conduct the surveys was obtained.

3. Results and Discussion

3. 1. Dataset

The numbers of high school teachers and students' guardians in the US data were counted, with the former being 40 (out of 176 teachers) and the latter being 55 (out of 164 guardians). The dataset was analyzable even if these data were deleted to control for type of school (elementary, junior high, or senior high schools). Therefore, for the US, the dataset after eliminating these data were used in the following analyses. The whole dataset contained 456 elementary or junior high school teachers (Cambodia: 150; Japan: 170; US: 136) and 429 guardians (Cambodia: 150; Japan: 170; US: 109).

3. 2. Calculation of Measurements

(1) Attitudes toward Teachers: The mean and skewness each of the 16 items were calculated. The results showed that the mean of each of the 14 items was more than 5 (theoretical range was from 1 to 6) and the skewness of each of the nine items was less than -1.00 (the lowest skewness was -1.38). That is, more than half of the items indicated extremely high values, and these results implied a ceiling effect.

Therefore, ranking scores were added to each of the item scores; these were based on the answers to the multiple-choice questions (first choice: 6 points; second: 5 points; third: 4 points; fourth: 3 points; fifth: 2 points; no choice: 1 point). Then, the mean and skewness of each of the 16 items were calculated again. The results

Table 1 Factor Analyses (Maximum likelihood, promax rotation) of Attitudes towards Aim of School Education

Code	Aim	F1	F2
F	To make friends.	0.87	0.24
B	To find a lifetime friend.	0.66	0.29
H	To engage in hobby-related activities, such as sports and music, with friends.	0.63	0.26
D	To get acquainted with many different kinds of people.	0.61	0.31
A	To conduct studies that will be useful for children's future.	0.32	0.71
E	To acquire specialized knowledge and skills related to each subject.	0.16	0.71
C	To conduct studies required to obtain qualifications and licenses in future.	0.29	0.67
G	To acquire a wide range of culture.	0.33	0.62
Factor correlation		.38	

indicated that no item had a mean of more than 10 (theoretical range was from 2 to 12), and the skewness of each of the five items was more than 1.00. That is, the ceiling effects were diminished by this procedure.

Then, correlation analyses were conducted. There were only three correlations (out of 120) with a more than absolute value of .20, and no correlation had a more than absolute value of .30. This result implies that the teachers' behaviors described by the survey items were independent of each other. Therefore, for the measure of attitudes toward teachers, no composite scores were not generated, and each of the 16 items were used individually in the following analyses.

(2) Attitudes toward the Aim of School Education: The mean and skewness of each of the eight items were obtained. The mean of each of the two items was more than 5 (theoretical range was from 1 to 6), and the skewness of only one item was less than -1.00 (-1.15). That is, conspicuous ceiling effects were not observed; therefore, ranking scores were not added.

Then, correlation analyses were conducted using the raw scores of each item. Nine correlations (out of 28) had a more than absolute value of .20, and four correlations had a more than absolute value of .30. In addition, factor analyses (maximum likelihood, promax rotation) were conducted (Table 1). The two-factor solution was selected in accordance with the eigenvalue decay process and the factors' interpretability. The first factor comprised items such as "To make friends" and "To find a lifetime friend"

Table 2 Means of Attitudes towards Teachers for Cluster

Code	Teachers behaviors	Total		Critical thinking (n = 153)		Calm and steady (n = 119)		Carrier-oriented (n = 116)		Coop-eration (n = 261)		Classroom Manage-ment (n = 223)	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
A	To develop children's "ability to think about things in detail, accurately, and from several perspectives."	8.19	2.43	<u>11.22</u>	0.92	7.88	2.51	<u>8.04</u>	2.48	6.69	1.24	8.02	2.30
D	To develop children's sense of responsibility.	7.38	2.18	<u>7.96</u>	2.11	<u>7.53</u>	2.12	6.97	2.41	7.05	1.99	7.49	2.25
L	To develop children's "ability to judge the good and the bad" and "willingness to abide by the rules and customs of the society."	7.22	2.14	6.96	1.69	6.87	1.90	5.85	1.64	<u>7.44</u>	2.18	<u>8.08</u>	2.29
N	To enhance children's "motivation to learn."	7.21	2.06	<u>7.41</u>	1.90	7.17	1.71	6.47	2.07	<u>8.13</u>	2.25	6.47	1.65
F	To deal with "bullying" and "acts of violence."	7.21	2.18	6.42	1.05	<u>7.22</u>	2.06	6.57	2.17	6.64	1.53	<u>8.78</u>	2.63
J	To develop children's mindset in recognizing and respecting various opinions and ways of thinking.	7.19	2.05	<u>8.01</u>	2.08	6.58	1.46	6.23	1.74	<u>7.77</u>	2.28	6.86	1.77
K	To develop children's "ability to express their opinions skillfully and listen to others."	6.99	1.94	<u>7.27</u>	1.69	6.62	1.75	5.79	1.35	<u>7.75</u>	2.20	6.76	1.71
E	To encourage children to acquire decent lifestyle habits.	6.93	1.98	6.53	1.44	<u>7.18</u>	1.84	6.08	1.66	6.67	1.78	<u>7.82</u>	2.39
G	To develop children's "ability to spontaneously examine and resolve what they do not understand."	6.90	2.03	<u>7.31</u>	1.91	6.82	1.84	5.72	1.58	<u>7.20</u>	2.28	6.91	1.89
M	To maintain children's mental health and to listen to and resolve their problems skillfully.	6.78	1.91	6.37	1.16	<u>6.65</u>	1.45	5.76	1.41	<u>7.80</u>	2.36	6.49	1.67
H	To guide children so that they can get along well with one another.	6.76	1.91	6.66	1.54	6.79	1.69	6.05	1.88	<u>6.90</u>	1.91	<u>7.04</u>	2.19
P	To provide lessons in a manner such that those who need special assistance, such as children with physical disability, can understand the content of lessons appropriately.	6.73	2.06	<u>7.22</u>	2.22	6.24	1.57	5.94	1.63	<u>7.21</u>	2.33	6.49	1.73
C	To help children memorize the content of lessons efficiently.	6.72	2.30	<u>6.21</u>	1.87	<u>10.98</u>	1.10	6.20	1.90	6.03	1.60	5.90	1.26
I	To assess children's academic skills accurately.	6.69	1.85	<u>6.91</u>	1.63	6.51	1.32	6.17	1.78	<u>7.23</u>	2.20	6.30	1.62
B	To provide guidance concerning children's progress to the subsequent stage of education or employment.	6.65	2.08	6.22	1.27	<u>6.72</u>	2.13	<u>9.09</u>	2.77	6.28	1.57	6.03	1.67
O	To encourage children to mutually cooperate while learning.	6.55	1.66	<u>6.71</u>	1.57	6.60	1.40	5.93	1.53	<u>7.19</u>	2.00	6.00	1.13

Double under lines mean the 1st highest mean and single ones stand for the 2nd in the 5 clusters.

and was named "interpersonal aim." The second factor contained items such as "To conduct studies that will be useful for children's future" and "To acquire specialized knowledge and skills related to each subject" and was named "academic aim." These two factors were the same as those of Deguchi and Yoshida (2005). Cronbach's alphas were .79 (interpersonal aim) and .77 (academic aim), and certain levels of internal consistency were confirmed. Then, the scores of each item were summed per factor and divided by the number of items to set the theoretical ranges

from 1 to 6.

- (3) Household Income: To align currencies, answers in Cambodian riel or Japanese yen were converted into US dollars according to the exchange rates at that time (1 dollar = 4,000 riel or 110 yen). Then, the respondents' incomes were divided into four based on the quartile points per country (Cambodia: 3,750.00–7,500.00–15,000.00; Japan: 45,454.55–63,636.36–81,818.18; US: 39,000.00–65,000.00–98,000.00). As for Japan, 89 respondents reported very low household incomes (less than 2,000 yen). It is

believed that this was the case because they had reported their own household incomes in ten thousands. Therefore, these answers were multiplied by 10,000.

3. 3. Comparison of Attitudes toward Teachers

(1) **Classification of Attitudes:** Cluster analysis (Ward method, squared Euclidean distance) was conducted to classify attitudes into categories (Table 2). The number of clusters was set between 3 and 5, and the classification with five clusters was selected in accordance with the interpretability and number of respondents for each cluster.

The first cluster ($n = 153$) indicated the highest values in the five clusters for the following items: "To develop children's 'ability to think about things in detail, accurately, and from several perspectives,'" "To develop children's sense of responsibility," "To develop children's mindset in recognizing and respecting various opinions and ways of thinking," "To develop children's 'ability to spontaneously examine and resolve what they do not understand,'" and "To provide lessons in a manner such that those who need special assistance, such as children with physical disability, can understand the content of lessons appropriately." In addition, it had the second highest values for "To enhance children's 'motivation to learn,'" "To develop children's 'ability to express their opinions skillfully and listen to others,'" "To help children memorize the content of lessons efficiently," "To assess children's academic skills accurately," and "To encourage children to mutually cooperate while learning." Therefore, this cluster was named "Critical thinking."

The second cluster ($n = 119$) showed the highest value for "To help children memorize the content of lessons efficiently" and the second highest for "To develop children's sense of responsibility," "To deal with 'bullying' and 'acts of violence,'" "To encourage children to acquire decent lifestyle habits," "To maintain children's mental health and to listen to and resolve their problems skillfully," and "To provide guidance concerning children's progress to the subsequent stage of education or employment." Therefore, this was named the "Calm and steady" cluster.

The third cluster ($n = 116$) had the highest

value for "To provide guidance concerning children's progress to the subsequent stage of education or employment" and the second highest for "To develop children's 'ability to think about things in detail, accurately, and from several perspectives'"; therefore, it was named the "Carrier-oriented" cluster.

The fourth cluster ($n = 261$) indicated the highest values for "To enhance children's 'motivation to learn,'" "To develop children's 'ability to express their opinions skillfully and listen to others,'" "To maintain children's mental health and to listen to and resolve their problems skillfully," "To assess children's academic skills accurately," and "To encourage children to mutually cooperate while learning." Moreover, it had the second highest values for "To develop children's 'ability to judge the good and the bad' and 'willingness to abide by the rules and customs of the society,'" "To develop children's mindset in recognizing and respecting various opinions and ways of thinking," "To develop children's 'ability to spontaneously examine and resolve what they do not understand,'" "To guide children so that they can get along well with one another," and "To provide lessons in a manner such that those who need special assistance, such as children with physical disability, can understand the content of lessons appropriately." Therefore, it was named the "Cooperation" cluster.

The fifth cluster ($n = 223$) indicated the highest values for "To develop children's 'ability to judge the good and the bad' and 'willingness to abide by the rules and customs of the society,'" "To deal with 'bullying' and 'acts of violence,'" "To encourage children to acquire decent lifestyle habits," "To guide children so that they can get along well with one another"; therefore, it was named the "Classroom management" cluster.

(2) **Comparison among Countries:** Chi-square tests (Attitudes \times Countries) were conducted for each teacher and guardian (Table 3, Figures 1-1, 1-2). Significant differences ($p < .05$) were observed among the countries for both teachers and guardians.

Regarding the teachers, in Cambodia, the ratio of "Cooperation" was the highest (.31), and "Calm and steady" was the second highest (.29). In Japan, "Classroom management" was the highest

Table 3 Ratios of Clusters per Country

			Critical thinking	Calm and steady	Carrier-oriented	Cooperation	Class-room management	Sum
Teachers	Cambodia	Ratio	.13	<u>.29</u>	.15	<u>.31</u>	.11	1
		Frequency	20	44	23	46	17	150
	Japan	Ratio	.20	<u>.08</u>	.11	<u>.23</u>	.38	1
		Frequency	33	13	18	37	63	164
	US	Ratio	<u>.31</u>	.04	.11	<u>.36</u>	.18	1
		Frequency	42	6	15	48	24	135
Guardians	Cambodia	Ratio	.10	<u>.20</u>	.11	<u>.39</u>	.19	1
		Frequency	15	30	17	59	29	150
	Japan	Ratio	.11	.11	.15	<u>.22</u>	<u>.42</u>	1
		Frequency	18	18	25	36	69	166
	US	Ratio	<u>.23</u>	.08	.17	<u>.33</u>	.20	1
		Frequency	25	8	18	35	21	107

Double under lines mean the 1st highest ratio and single ones stand for the 2nd in the 5 clusters. Chi-square tests per each teacher and guardian indicated $p_s < .05$.

Figure 1-1 Ratios of Clusters per Country (Teachers)

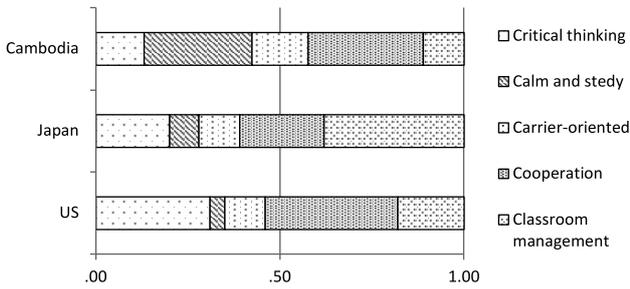
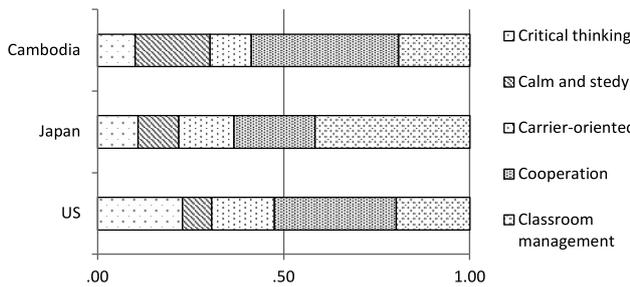


Figure 1-2 Ratios of Clusters per Country (Guardians)



(.38), followed by “Cooperation” (.23). In the US, “Cooperation” was the highest (.36), followed by “Critical thinking” (.31).

Regarding the guardians, in Cambodia, “Cooperation” was the highest (.39), and “Calm and steady” was the second highest (.20). In Japan, “Classroom management” was the highest (.42), followed by “Cooperation” (.22). In the US, “Cooperation” was the highest (.33), followed by “Critical thinking” (.23).

These results imply that the attitudes of Cambodian teachers and guardians resemble those of the American ones as several teachers and guardians in these two countries had the attitude of “Cooperation.” Conversely, in Japan, both teachers and guardians had the “Classroom management” attitude.

(3) Comparison Focused on Household Income: Chi-square tests (Attitudes × Household income)

Table 4-1 Ratios of Clusters per Household income (Teachers)

	Household income (Ascending order)		Critical thinking	Calm and steady	Carrier-oriented	Cooperation	Class-room management	Sum
Cambodia	Less than 25%	Ratio	.12	.36	.18	.15	.18	1
		Frequency	4	12	6	5	6	33
	25% to less than 50%	Ratio	.11	.30	.06	.45	.09	1
		Frequency	5	14	3	21	4	47
	50% to less than 75%	Ratio	.11	.32	.16	.34	.07	1
	Frequency	5	14	7	15	3	44	
Japan	75% to 100%	Ratio	.23	.15	.27	.19	.15	1
		Frequency	6	4	7	5	4	26
	Less than 25%	Ratio	.23	.07	.14	.18	.39	1
		Frequency	10	3	6	8	17	44
	25% to less than 50%	Ratio	.21	.11	.11	.21	.37	1
	Frequency	4	2	2	4	7	19	
US	50% to less than 75%	Ratio	.09	.09	.13	.28	.41	1
		Frequency	4	4	6	13	19	46
	75% to 100%	Ratio	.26	.07	.07	.22	.37	1
		Frequency	14	4	4	12	20	54
	Less than 25%	Ratio	.22	.09	.09	.40	.22	1
	Frequency	5	2	2	9	5	23	
US	25% to less than 50%	Ratio	.26	.00	.20	.31	.23	1
		Frequency	9	0	7	11	8	35
	50% to less than 75%	Ratio	.35	.05	.13	.38	.10	1
		Frequency	14	2	5	15	4	40
	75% to 100%	Ratio	.38	.05	.03	.35	.19	1
	Frequency	14	2	1	13	7	37	

Chi-square tests and Monte Carlo estimate per each country indicated $p_s > .05$.

Table 4-2 Ratios of Clusters per Household income (Guardians)

	Household income (Ascending order)		Critical thinking	Calm and steady	Carrier-oriented	Cooperation	Class-room management	Sum
Cambodia	Less than 25%	Ratio	.12	.10	.10	.42	.27	1
		Frequency	5	4	4	17	11	41
	25% to less than 50%	Ratio	.07	.21	.07	.39	.25	1
		Frequency	2	6	2	11	7	28
	50% to less than 75%	Ratio	.07	.23	.19	.39	.13	1
	Frequency	2	7	6	12	4	31	
Japan	75% to 100%	Ratio	.12	.26	.10	.38	.14	1
		Frequency	6	13	5	19	7	50
	Less than 25%	Ratio	.14	.12	.23	.14	.39	1
		Frequency	7	6	12	7	20	52
	25% to less than 50%	Ratio	.11	.14	.08	.24	.43	1
	Frequency	4	5	3	9	16	37	
US	50% to less than 75%	Ratio	.13	.03	.18	.18	.49	1
		Frequency	5	1	7	7	19	39
	75% to 100%	Ratio	.06	.17	.08	.33	.36	1
		Frequency	2	6	3	12	13	36
	Less than 25%	Ratio	.17	.14	.22	.28	.19	1
	Frequency	6	5	8	10	7	36	
US	25% to less than 50%	Ratio	.24	.04	.16	.24	.32	1
		Frequency	6	1	4	6	8	25
	50% to less than 75%	Ratio	.35	.05	.10	.30	.20	1
		Frequency	7	1	2	6	4	20
	75% to 100%	Ratio	.25	.04	.17	.46	.08	1
	Frequency	6	1	4	11	2	24	

Chi-square tests and Monte Carlo estimate per each country indicated $p_s > .05$.

were conducted for country (Tables 4-1, 4-2). No significant differences were observed ($p > .05$) for both teachers and guardians. However, as for Cambodian teachers, p -values were near .05 ($p = .08$. The same value was also calculated using the Monte Carlo estimate). Regarding Cambodian teachers of the lowest household income group, the ratio of “Cooperation” attitude was only .15 (.31 for overall), and that of “Calm and steady” was the highest (.36).

Table 5 ANOVAs of Attitudes towards Aim of School Education

		Interpersonal aim		Academic aim	
		Mean	SD	Mean	SD
Teachers	Cambodia	4.28	0.76	5.35	0.50
	Japan	4.60	0.83	4.58	0.76
	US	4.79	0.74	5.10	0.59
<i>F</i>		15.33 *		61.35 *	
Partial eta squared		.07		.22	
Multiple comparison ¹⁾		U, J > C		C > U, J U > J	
		Mean	SD	Mean	SD
Guardians	Cambodia	4.62	1.08	5.18	0.47
	Japan	4.53	0.85	4.47	0.74
	US	4.67	0.85	5.24	0.76
<i>F</i>		.78 (n.s.)		63.23 *	
Partial eta squared		.00		.23	
Multiple comparison ¹⁾				U, C > J	

1) Tukey HSD, C: Cambodia, J: Japan, U: US
*: $p < .05$

3. 4. Comparison of Attitudes toward Aim of School Education

Unpaired one-way analyses of variance (ANOVAs) were conducted for each teacher and guardian (Table 5). The independent variable was country (Cambodia, Japan, and US), and the dependent variables were the attitudes toward “Interpersonal” and “Academic” aims.

As for the teachers, the main effects of the country on “Interpersonal” and “Academic” aims were significant ($p < .05$). “Interpersonal aim” was considered important, in order, in the US, Japan, and Cambodia. The results of the multiple comparison (Tukey HSD) showed significant differences between the US and Cambodia and between Japan and Cambodia ($p < .05$) but no significant difference between the US and Japan. Conversely, “Academic aim” was considered important, in order, of Cambodia, the US, and Japan. The multiple comparison indicated significant differences among all the comparisons ($p < .05$).

Regarding the guardians, the main effect of the country on “Academic aims” was significant ($p < .05$), but that on “Interpersonal aim” was not. “Academic aim” was regarded as important, in order, in the US, Cambodia, and Japan. The multiple comparison showed significant differences between the US and Japan and between Cambodia and Japan ($p < .05$), but no significant difference between the US and Cambodia.

To make a comparison of household income, unpaired one-way ANOVAs were conducted for each country (Tables 6-1, 6-2). A significant difference ($p < .05$) was observed in “Interpersonal aim” for Cambodian guardians: the lower their household incomes, the lower the means (multiple comparison: $1 < 3$, $1 < 4$, $2 < 4$). For the other ANOVAs, no

Table 6-1 ANOVAs for Effects of Household Income on Attitudes towards Aim of School Education (Teachers)

		Interpersonal aim		Academic aim	
		Mean	SD	Mean	SD
Cambodia	Less than 25%	4.47	0.64	5.24	0.56
	25% to less than 50%	4.15	0.72	5.40	0.43
	50% to less than 75%	4.17	0.85	5.34	0.54
	75% to 100%	4.46	0.76	5.41	0.48
<i>F</i>		1.95 (n.s.)		.84 (n.s.)	
Partial eta squared		.04		.02	
		Mean	SD	Mean	SD
Japan	Less than 25%	4.69	0.74	4.61	0.71
	25% to less than 50%	4.49	1.19	4.51	1.07
	50% to less than 75%	4.45	0.75	4.41	0.70
	75% to 100%	4.69	0.80	4.71	0.71
<i>F</i>		1.03 (n.s.)		1.36 (n.s.)	
Partial eta squared		.02		.03	
		Mean	SD	Mean	SD
US	Less than 25%	4.78	0.89	5.10	0.60
	25% to less than 50%	4.70	0.69	5.08	0.57
	50% to less than 75%	4.81	0.70	5.09	0.64
	75% to 100%	4.84	0.75	5.14	0.56
<i>F</i>		0.22 (n.s.)		.07 (n.s.)	
Partial eta squared		.01		.00	

Table 6-2 ANOVAs for Effect of Household Income on Attitudes towards Aim of School Education (Guardians)

		Interpersonal aim		Academic aim	
		Mean	SD	Mean	SD
Cambodia	Less than 25%	3.84	1.06	5.24	0.59
	25% to less than 50%	4.39	0.99	5.16	0.49
	50% to less than 75%	5.01	1.03	5.27	0.39
	75% to 100%	5.14	0.72	5.08	0.38
<i>F</i>		16.75 *		1.44 (n.s.)	
Partial eta squared		.26		.03	
Multiple comparison ¹⁾		1 < 3, 4 2 < 4			
		Mean	SD	Mean	SD
Japan	Less than 25%	4.45	1.00	4.49	0.79
	25% to less than 50%	4.72	0.62	4.51	0.61
	50% to less than 75%	4.57	0.79	4.43	0.86
	75% to 100%	4.42	0.88	4.43	0.67
<i>F</i>		0.99 (n.s.)		.12 (n.s.)	
Partial eta squared		.02		.00	
		Mean	SD	Mean	SD
US	Less than 25%	4.88	0.72	5.40	0.54
	25% to less than 50%	4.46	1.03	5.28	1.00
	50% to less than 75%	4.50	0.89	5.04	0.79
	75% to 100%	4.84	0.68	5.25	0.64
<i>F</i>		1.85 (n.s.)		1.09 (n.s.)	
Partial eta squared		.05		.03	

1) Tukey HSD, 1: Less than 25%, 2: 25% to less than 50%, 3: 50% to less than 75%, 4: 75% to 100%.
*: $p < .05$

significant differences were observed ($p > .10$).

3. 5. Conclusion

Regarding the attitudes toward teachers, Americans and Cambodians considered “Cooperation” important, while the Japanese emphasized “Classroom managements.” In particular, Cambodian teachers with a low household income emphasized “Calm and steady.”

Regarding the attitudes toward the aim of school education, Japanese and American teachers focused on “Interpersonal aim” more than Cambodian teachers. Moreover, Cambodian teachers with low

income attached less importance to this aim compared to those with high income.

In summary, for Cambodia, teachers and guardians had “Calm and steady” attitudes and not only “Cooperation.” Moreover, the teachers emphasized “Interpersonal aim” less than those of the other countries, and the guardians with a low household income valued this aim less than ones with a high income. No difference in attitudes due to household incomes was observed for Japan and the US⁵⁾.

To prevent social problems such as bullying (Maeda & Voy, 2013, 2014), it is important to focus on not only “Academic aim” but also social aspects such as “Classroom management” attitude and “Interpersonal aim” in Cambodian teacher training. Deguchi, Kinoshita, and Yoshida (2010) investigated the effects of “A training program to foster fundamental thought about human and social matters” developed by applying social psychology. This training could improve students’ relationships with diverse friends in the classroom. Focusing on these social attitudes and aims might encourage SDG achievements such as “Reduced inequality” and “Peace, justice and strong institutions,” in addition to “Quality education.”

Note

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- 2) This paper was based on the presentation on the 61st annual meeting of the Japanese Association of Educational Psychology (Deguchi, 2019).
- 3) I would like to thank Editage (www.editage.com) for English language editing.
- 4) The author was mainly in charge of psychology on the E-TEC project.
- 5) As for Japan and USA, the numbers of family members (family size) were measured. Therefore, the other classification was also conducted with equivalent incomes (household income divided by square root of the number of family members; e.g. Toyoda, 2010). However, the results of chi-square tests (and Monte Carlo estimate) and ANOVAs using this classification did not indicate significant differences.

References

- Deguchi, T. (2019). What school teachers’ behaviors do teachers and students’ guardians think important? : Japan-US-Cambodia Comparison. *The 61st Annual Meeting of the Japanese Association of Educational Psychology*.
- Deguchi, T., Kinoshita, M., & Yoshida, T. (2010). A training program to foster fundamental thought about human and social matters: Experimental evaluation. *Japanese Journal of Educational Psychology*, 58, 198-211.
- Deguchi, T. & Yoshida, T. (2005). The relationships among normative consciousness, individual traits, and frequency of whispering during college lectures: Focusing on adjustment to college life. *Japanese Journal of Social Psychology*, 21, 160-169.
- Department of Curriculum Development (2016). *Curriculum Framework of General Education and Technical Education*. Ministry of Education, Youth and Sport (Cambodia).
- Hirayama, T. (2012). Historical Evolution of Primary Educational Development in Cambodia (Vol. 2) Development and Collapse of School Education (From 1958 until 1979). *The Bulletin of the Graduate School of Education of Waseda University*, 19, 221-232.
- Investigating Commission on the State of Teacher Training Core Curriculum (2017). *Teacher Training Core Curriculum*. http://www.mext.go.jp/component/b_menu/shingi/toushin/_icsFiles/afieldfile/2017/11/27/1398442_1_3.pdf.
- JICA (2017). *The E-TEC Project Has Begun on Jan 2017*. <https://www.jica.go.jp/project/cambodia/028/news/20170131.html>
- Johnson, D., W., Johnson, R., T., & Holubec, E., J. (2010). *Circles of Learning: Cooperation in the Classroom* (H. Ishida, & M. Umehara, Trans.). Nihei Sha. (Original work published 2002)
- Maeda, S., & Voy, S. (2013). The consciousness of daily life by children in cambodia: The case of children in Kor Prak elementary school. *KWASSUI BULLETIN Faculty of Wellness Studies*, 56, 49-65.
- Maeda, S., & Voy, S. (2014). A study on the consciousness of daily life by children in

- Cambodia: Comparison between village and urban children. *The Journal of Life Needs Experience Learning*, 14, 31-40.
- Matsuoka, R. (2014). An empirical investigation of relationships between junior high school students' family socioeconomic status, parental involvement, and academic performance in Japan. *Sociological Theory and Methods*, 29, 147-165.
- Nara National Institute of Higher Education and Research (2022). *The 4th Mid-term Objectives and Plans of Nara National Institute of Higher Education and Research*.
<http://www.nara-ni.ac.jp/about/Plan4th.pdf>
- Nara University of Education (2018). *Training Project: The Project for Establishing foundation for Teacher Education College in Cambodia*.
https://www.nara-edu.ac.jp/research/cambodia_training.html
- Noda, M. (2019). Ensuring SDGs and Education in Cambodia Development. *Comparative Education*, 58, 113-120.
- Ogisu, T. (2016). Classroom management in Asia: focusing on Cambodia. In. H. Suematsu, & K. Hayashi *Toward a Future of Classroom Management: Reality, Spirit and Hope*. Gakubun Sha. Pp. 147-161.
- Ono, Y. (2020). Recent Policy Initiatives to Upgrade Initial Teacher Education in Cambodia. *NUE Journal of International Educational Cooperation*, 14, 41-51.
- PADECO Co., Ltd. (2021). *Education in Cambodia Today*.
<https://padeco.education/2021/10/10/cambodia-4/>
- Sharan, Y. and Sharan, S. (2001). *Expanding Cooperative Learning through Group Investigation* (H. Ishida, S. Sugie, A. Ito, & K. Ito, Trans.). Kitaohji Shobo. (Original work published 1992)
- Shimizu, K. (1997). *Children and Development Aid Monks in Cambodia*. Syakai hyoron sya.
- Takahashi, K. & Utsumi, S. (1996). Society and Education. In T. Ayabe, and Y. Ishii (eds.) *Want to know more about Cambodia*. Koubundou. Pp. 170-210.
- Tandon, P., & Fukao, T. (2015). *Educating the Next Generation: Improving Teacher Quality in Cambodia*. World Bank Group.
- Toyoda, T. (2010). Regional perspectives on the inequality of household incomes and family size: An equivalent scale adjustment technique using integrated regional data. *Journal of Human Sciences and Arts, Faculty of Integrated Arts and Sciences, the University of Tokushima*, 18, 113-124.
- United Nations (2015). *Transforming our world: the 2030 Agenda for Sustainable Development*.
<https://www.mofa.go.jp/mofaj/gaiko/oda/sdgs/pdf/000101401.pdf>
- United Nations Department of Global Communications (2020). *Sustainable Development Goals: Guidelines for the Use of the SDG Logo Including the Colour Wheel, and 17 Icons*.
https://www.un.org/sustainabledevelopment/wp-content/uploads/2019/01/SDG_Guidelines_AUG_2019_Final.pdf
- United Nations Educational, Scientific and Cultural Organization (2020). *Education for Sustainable Development: A Roadmap*.
<https://unesdoc.unesco.org/ark:/48223/pf0000374802>

