

# Results of survey regarding the correlation between sleep and other daily habits and children's independence (outline)

## Survey Outline

- **Purpose:** To conduct a survey of sleep and other daily habits to understand the national situation and to ask questions regarding independence and mental/physical well-being so as to clarify their relationship with daily habits.
- **Target:** A sample of 100 schools selected for each grade between the fifth year of elementary school and third year of high school (1 class per school, a total of 800 classes). (Public schools only.)
- **Responses:** Collected from 771 out of 800 schools (96.4% response rate); 23,139 valid responses received

### Breakdown

Elementary Schools	195 (97.5% response rate)
Junior High Schools	281 (93.7% response rate)
High Schools	295 (98.3% response rate)

- **Period :** November 2014
- **Surveyed by** Libertas Consulting Co., Ltd. (outsourced)
- **Format :** Conducted using a multiple-choice questionnaire of 35 questions covering the below topics:  
<Survey Items>     Sleep    Breakfast    Interaction with information devices  
                                   Independence, mental/physical well-being etc.

## Survey Results: Key Points

### <Simple Tabulation>

- 22% of junior high school students and 47% of high school students go to bed after midnight.
- As the educational stage rises, the percentage of children who feel a lack of sleep tends to rise, with 1 in 3 high school students feeling such.
- As the educational stage rises, breakfast consumption decreases, with approximately 4 in 5 high school students consuming breakfast.

### <Cross-tabulation> (Groups in parentheses are educational stages demonstrating correlations)

- Children whose waking times often differed by 2 or more hours between mornings on school days and mornings on non-school days were more likely to respond that they couldn't help feeling sleepy during morning classes.  
(Elementary school, junior high school, high school)
- Children who took a nap for 30 minutes or longer after returning home from school were more likely to respond that they felt in bad health in the mornings.  
(Elementary school, junior high school, high school)
- Children who ate breakfast every morning were more likely to behave according to rules.  
(Junior high school, high school)
- Children who often spoke with a family member during breakfast were more likely to respond that they liked themselves.  
(Elementary school, junior high school, high school)
- Children that spent more time interacting with mobile phones and smart phones (excluding games) were more likely to go to bed at a later hour.  
(Elementary school, junior high school, high school)
- Children who interacted with information devices (TVs, video games, mobile or smart phones, or computers) immediately before sleep were more likely to respond that they found it harder to wake the following morning.  
(Elementary school, junior high school, high school)
- Children who went to bed at a later time were less likely to respond that they liked themselves and more likely to respond that they felt frustrated for no reason.  
(Elementary school, junior high school)

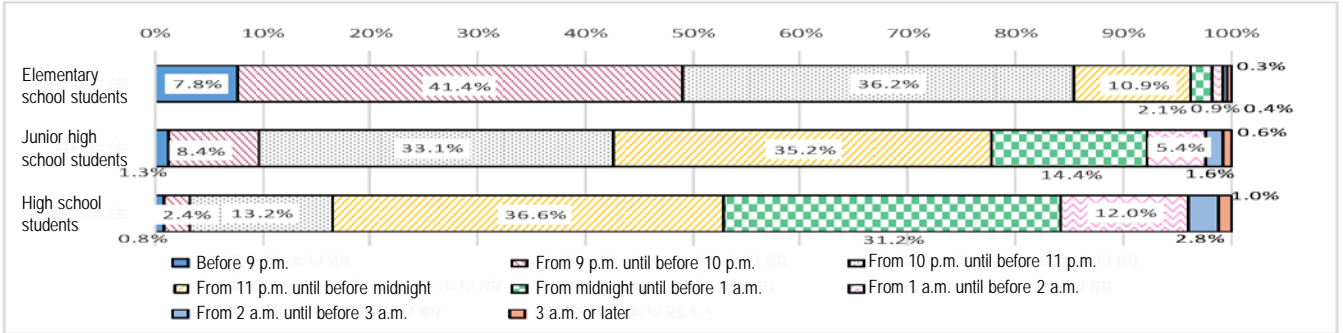
# Results Outline (Simple Tabulation)

Below are highlights from the simple tabulation results.

## ○ Sleep

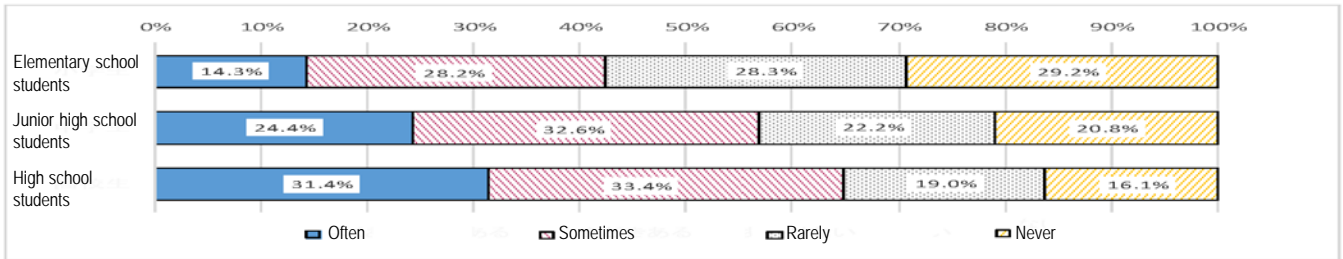
### (Bedtimes)

Looking at bedtimes for nights on which the following day is a school day, bedtimes become later as the educational stage rises. 49.2% of elementary school students go to bed by 10 p.m. 22.0% of junior high school students and 47.0% of high school students, meanwhile, go to bed later than midnight



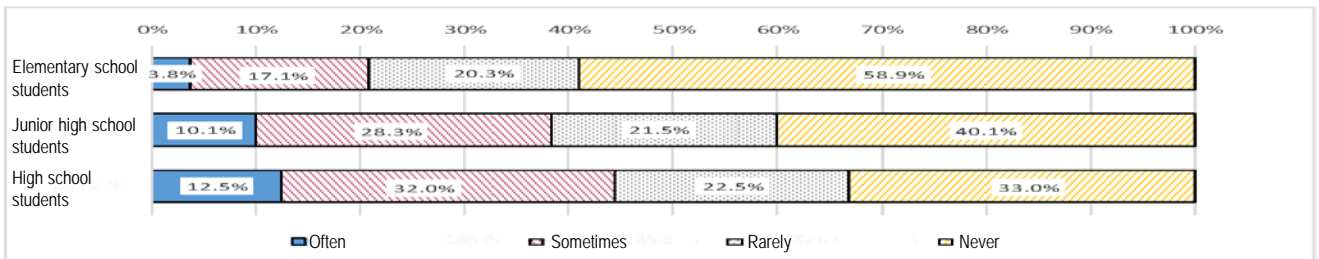
### (Waking time Irregularity)

Looking at the difference in waking times depending on whether the following day is a school day or not, as the educational stage rises the percentage of “often” and “sometimes” answers increases. Among high school students, 31.4% respond that there is “often” a difference of 2 or more hours, and 33.4% that there is “sometimes” such a difference.



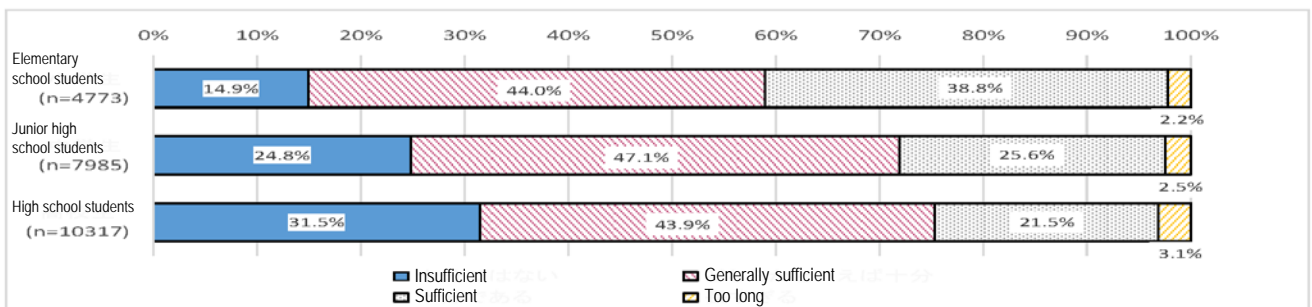
### (Naps)

Looking at students who take naps (30 minutes or longer) upon returning home from school, as the educational stage rises, the percentage of “often” and “sometimes” responses increases. 3.8% of elementary school students reply “often” and 17.1% reply “sometimes,” while 10.1% of junior high school students reply “often” and 28.3% reply “sometimes,” showing a large discrepancy between the two stages.



### (Self-Evaluation of Sleeping Hours)

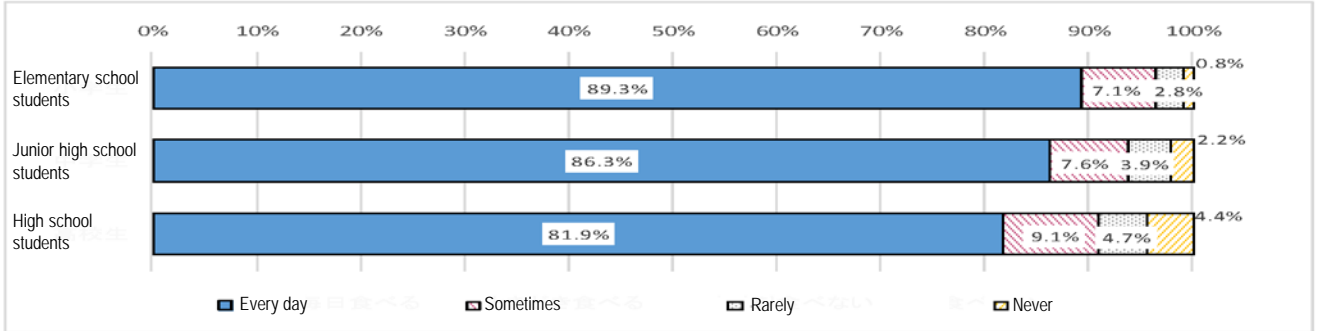
Looking at students’ self-evaluation of their sleeping hours, as the educational stage rises, “insufficient” answers rise. The percentage of “insufficient” answers was just 14.9% among elementary school students but 24.8% among junior high school students and 31.5% among high school students.



## ○ Meals

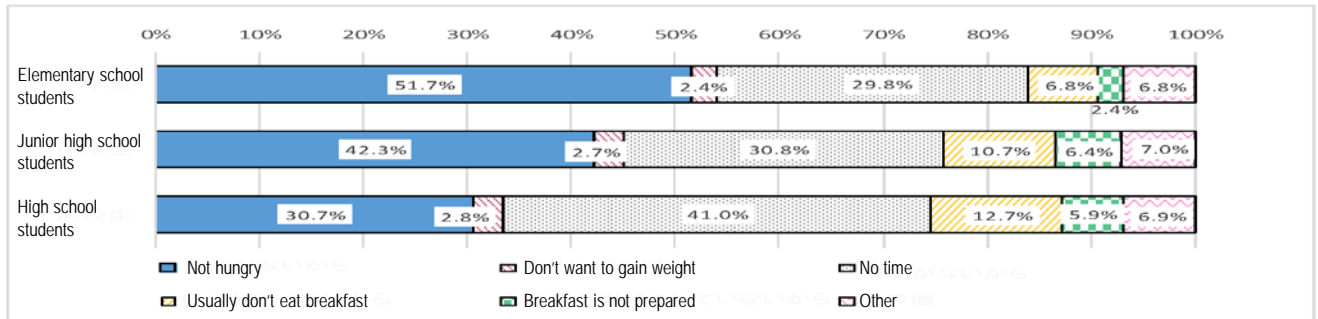
### (Breakfast Consumption)

Looking at breakfast consumption, as the educational stage rises, the percentage who eat breakfast “every day” decreases. Consumption is highest among elementary school students, 89.3% of whom eat breakfast “every day.” Rates then decline, with 86.3% of junior high school students and 81.9% of high school students eating breakfast “every day.”



### (Reasons for Skipping Breakfast)

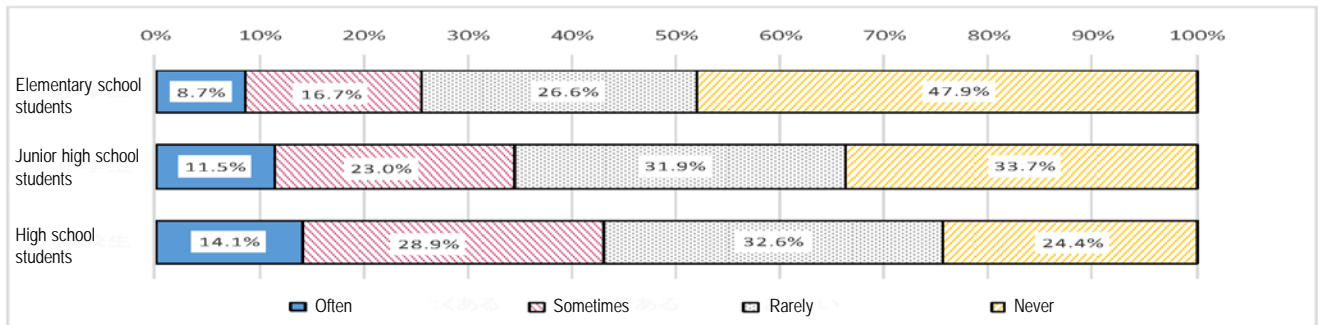
Looking at reasons for skipping breakfast, the most common reason among elementary school students was “not hungry” at 51.7%, followed by “no time” at 29.8%. Junior high school students responded similarly, with 42.3% citing “not hungry” and 30.8% citing “no time” as reasons for skipping breakfast. High school students cite “no time” most often, comprising 41.0% of the responses, with “not hungry” in second at 30.7%.



## ○Independence and Mental/Physical Well-being

### (Frustrated for No Reason)

When asking if students become frustrated for no apparent reason, the percentage of “often” and “sometimes” answers increased as the educational stage rose. The majority of these responses came from high school students, with 14.1% responding “often” and 28.9% responding “sometimes.” Among elementary school students, 8.7% responded “often,” and 16.7% responded “sometimes.”



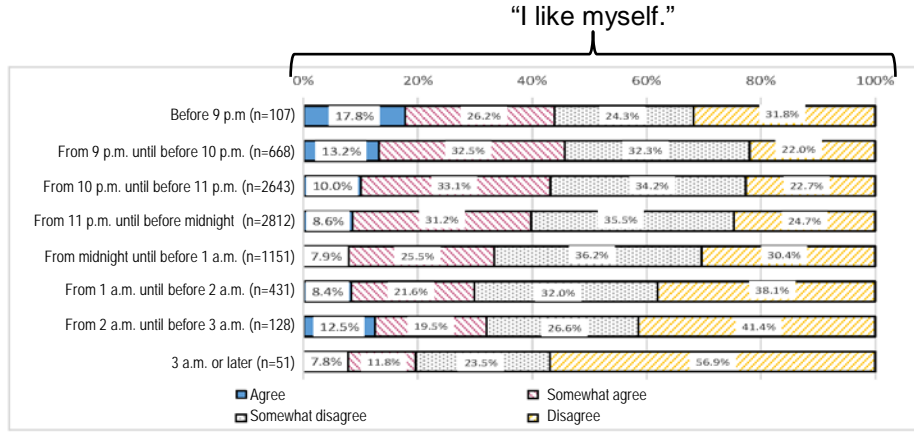
Below are highlights from the correlations resulting from cross-tabulation of various survey data (graphs show data for junior high school students only).

## ○Bedtime

(Bedtime and Mental/Physical Well-being)

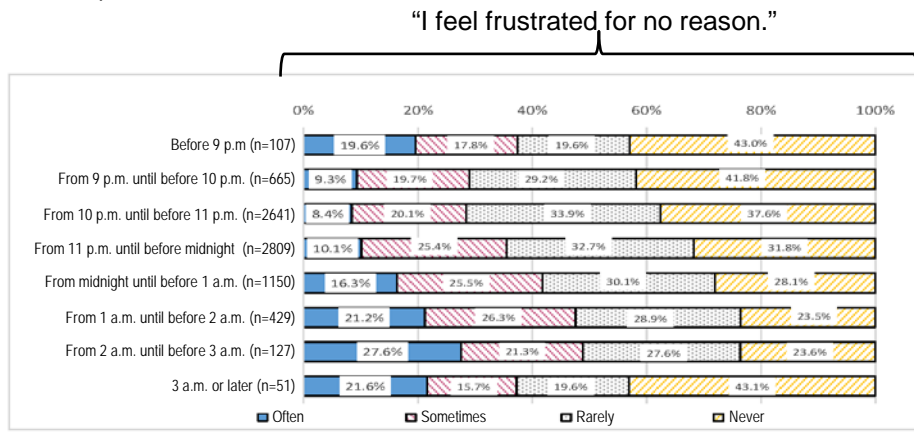
Looking at the relationship between bedtimes on nights when the following day is a school day and whether or not students like themselves, elementary school students and junior high school students generally more likely to agree the earlier their bedtime. (Excludes junior high school students with bedtimes at 2 a.m. or later due to a small sample size.)

“When the next day is a school day, around what time do you go to bed?”



Looking at the relationship between bedtimes on nights when the following day is a school day and a feeling of frustration for no reason, elementary school students and junior high school students generally are more likely to respond that they “often” or “sometimes” feel frustrated for no reason the later their bedtime. (Excludes junior high school students with bedtimes at 3 a.m. or later due to a small sample size.)

“When the next day is a school day, around what time do you go to bed?”

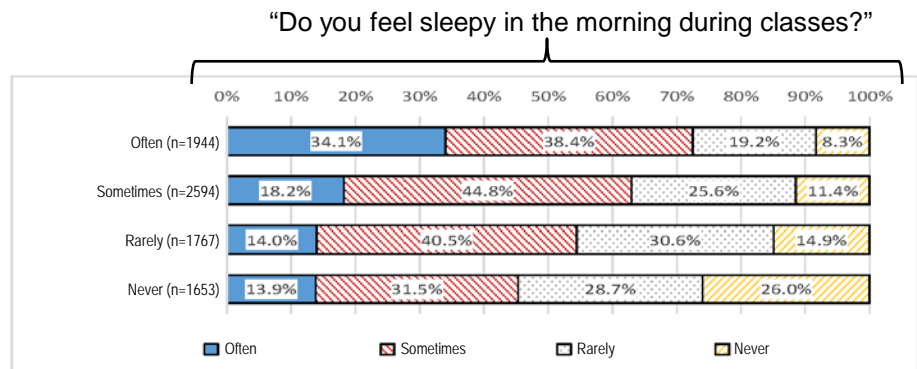


## ○Sleep Rhythm

(Inconsistent Waking Times on School and Non-school Days and Mental/Physical Well-being)

Looking at the relationship between a 2 or more hour difference in waking times between school and non-school days and a “feeling of sleepiness in the morning during classes,” elementary school students, junior high school students, and high school students all generally were more likely to feel sleepy in the morning during classes the more often their sleeping times varied by at least 2 hours.

“Is there a 2 or more hour time difference in waking times on school days and non-school days?”



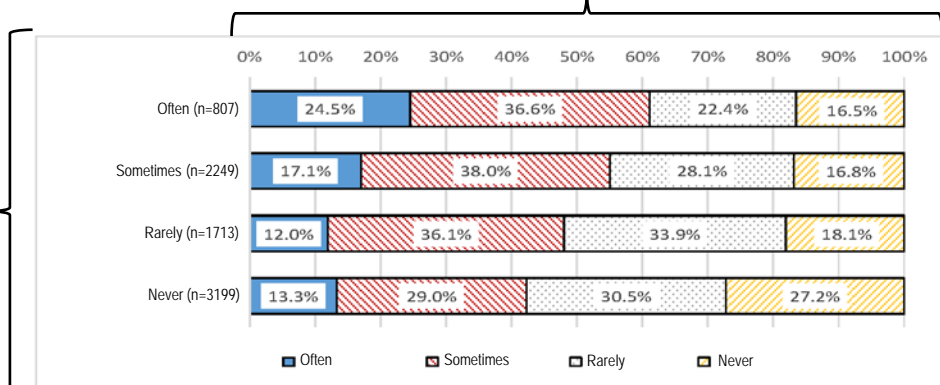


### (Post-school Naps and Mental/Physical Well-being)

Looking at the relationship between napping after returning home from school and a feeling of bad health in the morning, elementary school students, junior high school students, and high school students all generally were more likely to feel in bad health in the morning the more often they took naps.

"I feel in bad health in the morning."

"Between the time you come home from school and your bedtime, do you take a nap of 30 minutes or more?"



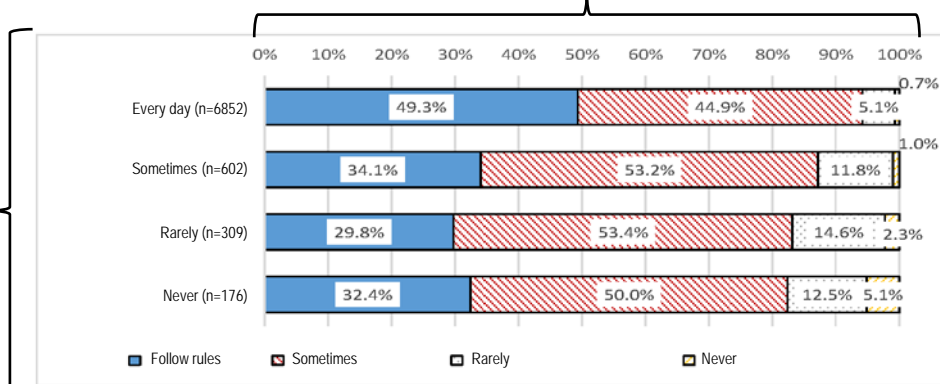
### ○ Breakfast

(Breakfast Consumption and Self-control)

Looking at the relationship between breakfast consumption and whether or not students follow rules, junior high school students and high school students who eat breakfast "every day" were more likely to "follow rules." Among the different groups that fell into categories other than "every day" however, little difference was seen.

"Do you follow rules?"

"Do you eat breakfast?"

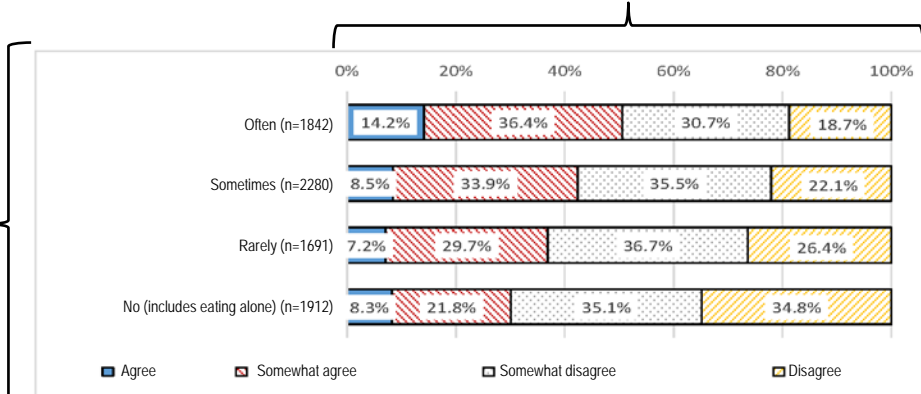


### (Conversation at Breakfast and Mental/Physical Well-being)

Looking at the relationship between conversation with family during breakfast and whether or not the student likes themselves, elementary school students, junior high school students, and high school students all were more likely to respond "agree" or "somewhat agree" when asked if they like themselves the more often they conversed with family during breakfast.

"I like myself"

"Do you usually talk with family members during breakfast?"



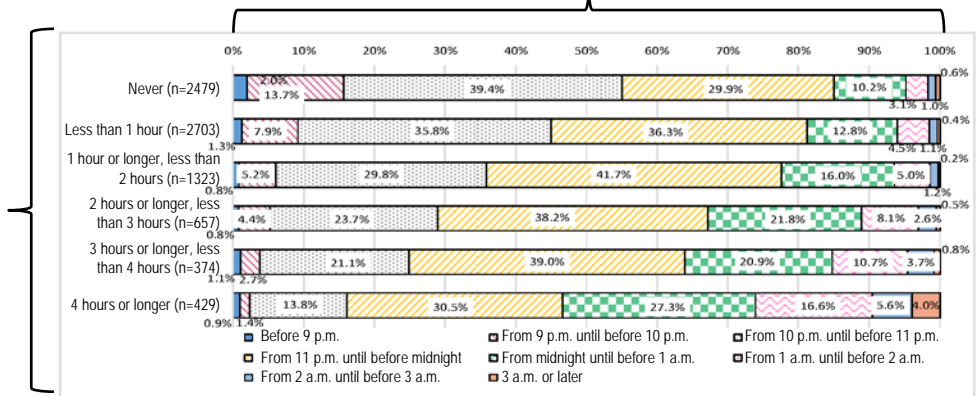
## ○ Information Device Interaction

(Relationship between Interaction Time with Mobile Phones and Smart Phones and Bedtime)

Looking at the relationship between interaction time with mobile phones and smart phones (excluding games) and bedtimes on nights on which the following day is a school day, in general, the bedtimes of elementary school, junior high school, and high school students were all later the more time they spent interacting with such devices.

“When the next day is a school day, around what time do you go to bed?”

“I use the Internet or talk or send messages on my mobile or smart phone...”



(Relationship between Information Device Interaction Immediately Before Sleep and Sleep Quality)

When looking at the relationship between interaction with various information devices (TV, video games, mobile phones and smartphones, computers, etc.) immediately before sleep and the presence of a “feeling of difficulty waking in the morning,” in general, elementary school, junior high school, and high school students all found it more difficult to wake in the morning the more often they interacted with devices immediately before sleeping.

“Do you find it difficult to wake in the morning?”

“Do you interact with information devices immediately before sleep?”

