Teachers' prediction about working hours and its effect on teachers' enjoyment

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ABSTRACT

Japan is facing the enduring problem of teachers' long working hours, and Japanese teachers' satisfaction is much lower than that of other OECD counties. However, the relationship between teachers' working hours and their satisfaction is not very clear. The purpose of our research is to investigate this relationship with its focus being on the influence of teachers' expectations. Guided by a theoretical framework of expectancy violation theory, we have examined how the discrepancy between the teachers' actual working hours and their expected or ideal working hours influences their professional satisfaction and personal enjoyment. Our research shows that having accurate predictions about working hours as pre-service teachers mitigates the negative influence of working longer than teachers ideally want to on their personal enjoyment. It is also revealed that teachers' personal enjoyment is positively associated with teachers spending decent time for preparing and grading in some conditions, while avoiding working longer at school than they ideally want to.

【Keywords: Teachers working hours, satisfaction, expectancy violation theory, workstyle reform】

Teachers' Working Hours and the Related Government Reforms

Teachers in Japan are known to work extremely long. OECD's TALIS report (2019) shows that middle school teachers in Japan work 56.0 hours a week on average, while the teachers in OECD counties work 38.8 hours a week on average. Another domestic survey done by MEXT (Ministry of Education, Culture, Sports, Science and Technology, 2018a) reveals that about 30% of elementary school teachers and 60% of middle school teachers work more than 80 hours a week outside of their regular work hours.

Japanese government acknowledges the problem, and there has been political movement to reduce the teachers' working hours (Kitagami, 2018). However, the TALIS survey reports revealed that there is no improvement at all from 2013 to 2018. It is clear that simply encouraging teachers going home early without lessening any workload is not effective. A study done by Japanese trade union confederation (2018) reports that 60.1% elementary and middle school teachers experienced being told to go home early within the last 12 months, but 68.7% agreed that the workload should be lessened before the they were pressured to go home early. The same study shows that 46.4% of these teachers feel that the total workload remains the same as they have to work longer at home, and only 0.7 % of these teachers felt that their workload was lessened.

As a part of the workstyle reform, MEXT proposed a list of tasks that teachers have been historically doing but that teachers do not have to do (2018b). The example tasks that should not be done by teachers include "Looking after school children coming to and leaving school in the school zone" and "Patrolling the neighborhood (School District) after school and at night, dealing with students under correctional guidance by the police." Similarly, the tasks, such as cleaning and supervising extracurricular activities, were categorized as tasks that the schools are responsible for but are not necessarily have to be done by teachers.

While the government has been working on finding a way to decrease the teachers' workload, there is not enough data about what sort of changes

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the teachers themselves are seeking. TALIS (2019) reveals that the longer hours a week the Japanese teachers spend time at work, the less satisfied they are in general. However, the impact of long working hours on satisfaction that the statistics shows is relatively small, and thus there must be other important factors affecting the relationship between teachers' work hours and their satisfaction. We predicted that the teachers' expectations as pre-service teachers about how long they will work once they become in-service teachers and their image of ideal life as teachers would play important role in determining their satisfaction.

Our research examined the teachers' expected and ideal life as teachers, in addition to their life as teachers. We focused especially on how they spend time as teachers, given the current and enduring issue of Japanese teachers' extreme long working hours. We have compared their expected, actual, and ideal workhours and examined how the gap between these hours influence their satisfaction.

Expectancy Violation Theory

The expectancy violation theory (EVT: Burgoon, 1978) explains how individuals experience positive and negative feelings when their expectations about social interactions are not met. The theory claims that individuals interact with others with various expectations, which are socially and culturally constructed.

EVT introduces the following four types of consequences of having expectations about communication partners, constructed with the 2 (positive or negative) x 2 (violation or confirmation) format. 1) *Positive violation* is when individuals' expectations are not met but in a favorable way. For instance, Student A who usually does not turn in his homework happens to turn it in one day. In this situation, his teacher would be surprised by his behavior and the teacher's expectation about the student A's behavior is violated. However, the teacher would evaluate this violation favorably. 2) *Positive confirmation* is when individuals' expectations that something desirable will happen are confirmed. For instance, Student B who always turns in her homework turns it in one day. In this situation, the student's behavior is just how her teacher expected. Her teacher's expectation about the student B's behavior is confirmed. EVT proposes that positive expectancy violations should lead to better communication outcomes than positive confirmations. In the examples above, the teacher is pleased by both Student A's and Student B's behaviors. However, the teacher would be more pleased by Student A than Student B.

Also, 3) *Negative violation* happens when the actual situation is perceived as less desirable than the expected situation. For instance, one day, a teacher finds his classroom dirty, while students are supposed to keep the room clean. In this situation, the teacher's expectation is not met in undesirable way. 4) *Negative confirmation* is when individuals' expectations that something undesirable will happen are confirmed. For instance, there is a class where students constantly dirty the classroom, and one day, a teacher finds the room dirty as always. The teacher would not be shocked by the dirtiness of the classroom as s/he holds the expectation that the room would not be clean. EVT proposes that negative expectancy violations should lead to worse communication outcomes than negative confirmations. In the examples above, the teacher is unpleased by both situations. However, the teacher facing the former situation would be more upset, as in the latter situation, the teacher is mentally ready to experience the unpleasantness.

Components of Teachers' Expectancy Violation About Working Hours

Expected life as teachers

Teacher is a well-known occupation. People have general ideas about what teachers do and how they spend their time at schools. In addition, pre-service teachers learn about the profession as a part of teacher education programs. It is reasonable for us to assume that teachers have decent ideas about how they spend a day as teachers, before they become teachers.

Actual life as teachers

In Japan, most of teachers work much longer than the labor contract requires them. Teachers' official working hours is 7 hours and 45 minutes per day with 1 hour break on top of it. Thus, teachers are expected to stay at school for 8 hours and 45 minutes in total. Typical working hour is from 8:30am to 5:15pm (86.4% of elementary schools and 81.7% of middle schools set the starting time at between 8:00am and 8:30am, and 87.2% of elementary schools and 82.5% of middle schools set the ending time at between 4:30pm and 5:00pm, MEXT 2018a). Also, typical teachers do not find time to take the one-hour break provided. There are many anecdotes that teachers do not have time to go to restrooms until students leave for the day, and cystitis is reported as a disease that is common for teachers (The Asahi Shimbun Company, 2022). A study shows that the average break time that elementary and middle school teachers take is less than 6 min a day

(MEXT 2018a).

Among middle school full-time teachers in Japan who have participated in TALIS 2018 survey, only 6.8% of teachers reported that their overtime hour is less than 5 hours a week. In addition, 50.0% teachers reported that their overtime hour exceeds 30 hours a week.

Ideal life as teachers

Teachers' perception about their ideal life as teachers is a necessary piece of information to determine the direction of deviations from expectations. As mentioned above, there is no systematic data showing that all teachers want to work for less hours. There would be perceptual differences among teachers about how they want to use their time as teachers. Depending on their ideal images of their lives as teachers, the teachers may judge a violation either as desirable or undesirable. For instance, a teacher may have expected to work for 8 hours a day but found out that he actually needs to work for 10 hours a day. In this example, his expectation was violated, but we do not know whether this violation was positive or negative for this teacher. If this teacher ideally wants to work for 7 hours a day, this violation would be evaluated as undesirable. In contrast, if this teacher ideally wants to work for 12 hours a day, this violation would be evaluated as desirable. Even though the actual working hour is not as much as 12 hours, the 10 hours is closer to the ideal 12 hours, compared to the expected 8 hours.

The magnitude of violation

The magnitude of violation refers to how large the gap is between the actual working hours and the expected working hours. The larger the gap, the larger the magnitude of violation. Similarly, we assert that the gap between the actual working hours and the ideal working hours is also a part of equation. The larger the gap, the larger the magnitude of violation. In this study, we examined the magnitude of both actual-expected and actual-ideal work hour violations.

Application of EVT to Life As Teachers

EVT has been typically used for communication acts that complete within a short time. In contrast, we adopt this theory to long-term interactions. Our research focused on teachers' expectations about how they spend their time and how the violation of their expectations influence their satisfaction to work as teachers. While the theory explains how the violation of expectations affects the actor's communication outcomes in the context of interpersonal relationships, we adapted it to the situation where individual's expectations about work life are violated. It takes a while for teachers to find out how long they end up with spending time at school, because Japanese teachers do not work within their contracted work hours. Once teachers start working in schools, they gradually learn their actual workhours for typical weeks. Therefore, teachers will experience the violation or confirmation of their expectation rather gradually, and this violation or confirmation will not necessarily lead to one-time communication outcomes but will be reflected to their satisfaction of working as teachers.

Teachers' Satisfaction

Teachers' satisfaction is important, as it relates to teachers' well-being, retention rates, and so on. However, Japanese teachers' satisfaction is lower than that of other OECD countries. While 90.3% of middle school teachers from OECD countries agree that they are "all in all" satisfied with their job, teachers in Japan agree only for 81.8%. Japan is one of the three lowest countries for teachers' satisfaction. Also, the percentage of teachers who agree that they are "satisfied with their performance in their school" is only 49% in Japan- worst by far, compared to other OECD countries (OECD average is 90.3%; the second worst country's average is 81.5%).

Hypotheses

EVT proposes that positive expectancy violations should lead to better communication outcomes than positive confirmations. Negative expectancy violations should lead to worse communication outcomes than negative confirmations (Burgoon, 1978). When applying this theory to the teachers' working hour, we constructed the following 2 hypotheses.

Positive violation happens when teachers find out that their total working hours are different from expected but in a desirable way. Positive confirmation happens when teachers find out that their total working hours are just as expected and desirable. Teachers will feel more satisfied when they find that the working condition is unexpectedly better than they thought (positive violation) than when they find out that their working condition is just as good as they expected (positive confirmation).

Similarly, EVT proposes that negative expectancy violations should lead to worse communication outcomes than negative confirmations (Burgoon, 1978). Negative violation happens when teachers find out that their

total working hours are different from expected but in a undesirable way. Negative confirmation happens when teachers find out that their total working hours are just as expected although it is not desirable. Teachers' level of satisfaction will be higher when they find out that their working condition is just as bad as they expected (negative confirmation) than when they find that the working condition is unexpectedly worse than they thought (negative violation).

H1: Teachers' satisfaction is higher when their expectations about working hour are positively violated, compared to when their expectations are positively confirmed .

H2: Teachers' satisfaction is higher when their expectations about working hour are negatively confirmed compared to when their expectations are negatively violated.

Total Working Hours and the Time Designated for Specific Tasks

We also predicted that the impact of the violation on teachers' satisfaction would be different depending on for what tasks teachers spend time.

TALIS (2018) results show that the relationship between the teachers' total working hours and their satisfaction is not clear. Although teachers who work longer hours tend to be less satisfied with their job than those who work shorter hours, the size of this relationship is very small. We predicted that one possible reasons why teachers' long working hour does not strongly predict their lower satisfaction is that some tasks are very important for teachers to remain professionally satisfied and to personally enjoy working as teachers, and thus they want to secure enough time for these tasks. Given that teachers desire to spend a good amount of time for their valued tasks, teachers are more satisfied when they find out that they can spend longer time than expected (positive violation) than when they find out that they can spend as much time as they expected (positive confirmation). Also, with their busy schedule, some teachers may have an expectation that they will not be able to spend time for the valued tasks as much as they wish to. In this case, teachers are less satisfied when they find out that they have a shorter time for the valued tasks than expected (negative violation) than when they find out that they can spend a limited time but as much time as they expected (negative confirmation).

H3: Teachers' satisfaction is higher when their actual hour spent for the valued tasks is longer than their expected hour spent for the valued task (positive violation), compared to when their expectations are confirmed (positive confirmation).

H4: Teachers' satisfaction is lower when their actual hour spent for the valued task is shorter than their expected hour spent for the valued task (negative violation), compared to when their expectations are confirmed (negative confirmation).

Hypotheses 1 and 2 for total working hours and Hypotheses 3 and 4 for the hours for the valued tasks may seem contradict with each other. But the idea here is that teachers would like to spend decent time for what they think important but would not like to spend too much time for what they do not value as teachers' tasks.

Methods

Participants

The total of 79 participants were recruited to take the online survey from 2020 to 2021. To ensure that our participants were teachers, we adopted the convenient sampling by asking teachers that our research team members knew to share this survey opportunity with other teachers.

Among these 79 participants, 51 teachers work at elementary schools, 12 work at middle schools, and 15 work at high schools, with 1 being undeclared. We recruited only new teachers whose work experience is 5 years or less, as some of the survey questions ask the teachers to recall how they thought about teaching profession when they were pre-service teachers. We have 38 female, 40 male, and 1 other teachers.

Procedure

Participants were asked to complete the online survey. Their participation was voluntary, and no compensation was provided.

As a part of the survey, participants were asked to report 1) time to arrive at school, 2) time to leave school, 3) time they spend for preparing for lessons and grading, 4) satisfaction to work as teachers, and 5) the importance of various tasks and ideas associated with working as teachers for their satisfaction.

Variables

Teachers' working hours (expected, actual, and ideal)

Teachers' working hours is defined as the total time that teachers spend at workplace per day in our research. This was calculated by taking the difference between teachers' time to arrive at school in the morning and the time to leave school in the evening.

What is unique about our research is that we have examined three types of teachers' working hours: expected, actual, and ideal. The expected working hour is how long the teachers predicted to work at school per day when they were pre-service teachers (before they start working at schools). In the survey, we asked, "what time did you predict to arrive at school for work?" and "what time did you predict to leave school for a day?". To calculate the teachers' expected working hours, we subtract the time they expected to arrive at school from the time they expected to leave school. Similarly, the actual working hour is how long the teachers in fact work at school per day. In the survey, we asked, "what time do you usually arrive at school for work?" and "what time do you usually leave school for a day?". To calculate the actual working hours, we subtract the time they usually arrive from the time they usually leave. Lastly, the ideal working hour is how long the teachers ideally want to work at school per day. In the survey, we asked, "what time do you ideally want to arrive at school for work?" and "what time do you ideally want to leave school for a day?". To calculate the ideal working hours, we subtract the time they ideally want to arrive from the time they ideally want to leave.

Satisfaction

We have examined 2 types of satisfaction by differentiating the ideas of professional satisfaction and personal enjoyment. Professional satisfaction is the feeling of content that comes from the belief that they are contributing to children's education and growth of schools and communities as teaching professions. Japanese concept, *ikigai*, is synonym to this idea. In contrast, personal enjoyment is the joy that teachers feel working as teachers. Some teachers may not necessarily enjoy their work as the teaching job is very hard (low personal enjoyment), but they may feel happiness as their work is very important to society (high professional enjoyment). Other teachers may find their work full of enjoyment (high personal enjoyment), but they may not feel that they are using their professional skills in the meaningful way (low professional satisfaction).

For professional satisfaction, we have asked teachers, overall, how professionally satisfied they are with as a teacher, and rate their satisfaction level by using the 10-point Likert-type scale with "1" being "not at all satisfied" and "10" being "completely satisfied." Similarly for personal enjoyment, we have asked teachers, overall, how much they enjoy being a teacher.

Contributors to teachers' satisfaction

The participants were asked to not only rate their professional satisfaction and personal enjoyment, but also rate how much various tasks are important for them to feel higher professional satisfaction and personal enjoyment independently. A 6-point Likert-type scale was used with "1" being "not at all important" and "6" being "very important." The list of items and descriptive statistics are shown in Table 3.

For those items that the participants rates for professional satisfaction and personal enjoyment similarly (based on the results of t-tests), we made the combined score indicating the importance of these items for teachers' satisfaction, including their professional satisfaction and personal enjoyment.

Results

Hypothesis 1 & 2: Influence of the Expectancy Violation About Teachers' Working Hours on Their Satisfaction

The descriptive statistics of teachers' working hours and their satisfaction are in Table 1. All participants reported that they ideally want to stay at school shorter than actual. That is, working longer than how long they ideally want to work is undesirable, and thus negative violation, for all teachers.

Among the total of 79 teachers, 24 teachers (30.4%) reported that they have been working shorter than expected. This group of teachers experience positive violation, as they ideally want to work less hours but were mentally ready to work longer than actual. Another 44 teachers (55.7%) reported that they have been working longer than expected. This group of teachers experience negative violation, as they ideally want to work less hours and that they thought they could leave workplace earlier than actual. Also, there were 2 teachers (2.5%) whose expected working hours and actual working hours matched perfectly. That is, these teachers experience the negative confirmation, as their expectation was confirmed but they ideally want to work less hour. Lastly, the rest of the 9 teachers (11.4%) reported that they did not have any prediction about from when to when they work at all.

To test Hypothesis 1, we combined the teachers who experience positive violation and whose expectation was confirmed. We examined the relationship between the magnitude of positive violation and the teachers' satisfaction. Hypothesis one was supported only for personal enjoyment. The larger the magnitude of the positive violation, the higher level of personal enjoyment they experience, r=.40, p<.05.

Teachers enjoy their lives as teachers more, when they work much shorter than expected.

To test Hypothesis 2, we combined the

Table 1

Group means for elementary school teachers and middle/high school teachers' working hours and satisfaction

		elementary			middle/high		
		Expected	Actual	Ideal	Expected	Actual	Ideal
total working hours per day		11h07m	11h59m	9h26m	11h24m	11h45m	9h29m
time to arrive at school		7:46 AM	7:22 AM	7:57 AM	7:49 AM	7:43 AM	7:59 AM
time to leave school		6:51 PM	7:21 PM	5:23 PM	7:11 PM	7:27 PM	5:28 PM
time spent for preparing for teaching and grading per day		1h53m	1h48m	1h59m	2h03m	2h25m	2h27m
professional satisfaction	(10-point scale, "1=lowest" to "10=highest")	6.45			6.74		
personal enjoyment		6.24			7.71		

Table 2

Differences in the effect of differences between ideal and actual working hours on professional satisfaction and personal enjoyment depending on the size of the differences between the expected and actual working hours

		Effect of difference between ideal and actual hours on professional satisfaction and personal enjoyment	
		relationship to satisfaction	relationship to enjoyment
difference between expected and actual hours	Smaller	No	No
	Larger	No	Negative relationship

teachers who experience negative violation and whose expectation was confirmed. We examined the relationship between the magnitude of negative violation and the teachers' satisfaction. Hypothesis two was not supported. No correlation was found between the magnitude of violation and the level of satisfaction. That is, there is no difference in teachers' satisfaction levels depending on the magnitude of negative violation.

Post-Hoc Analysis Associated With Hypothesis 1 & 2: Influence of Accuracy in Teachers' Predications About Total Working Hours on Their Satisfaction

We have examined if the gap between the teachers' expected and the actual working hours affects their satisfaction. We found no influence. That is, having accurate prediction about how long they will work as teachers before they become teachers does not help them gain more satisfaction.

We have also examined if the difference between the teachers' ideal and actual working hour affects their professional satisfaction and personal enjoyment. We found that the larger the gap, the less enjoyment they experience, r=.25, p<.05. That is, teachers enjoy working more when their actual working hour is closer to their ideal working hours. Put differently, the longer they have to work exceeding their ideal work hours, the less teachers enjoy working as teachers. There was no influence found for professional satisfaction.

We have divided teachers into 2 groups, depending on their accuracy in their expectations about how long they stay at schools. The average difference between the expected and actual working hour was 1.53 hours per day in absolute values. We grouped up teachers whose predictions were relatively accurate and the gap between the expected and actual working hours was less than 1.53 hour per day. For these teachers, the magnitude of the gap between the real and ideal work hours did not influence their professional satisfaction or personal enjoyment. In contrast, there were the other group of teachers

whose predictions were not quite accurate and the gap between their predicted and actual working hours was 1.53 hour or more per day. For these teachers, the magnitude of the gap between the actual and ideal work hours had a negative influence on their personal enjoyment, r=.39, p<.05. In other words, the longer teachers work exceeding their ideal work hours, the less enjoyment the teachers experienced, only when they did not accurately predict how long they will be staying at school for work. Accurate prediction of pre-service teachers about how long they will work after they become teachers help to mitigate the negative influence of working longer than expected on their personal enjoyment.

Hypothesis 3 & 4: Influence of the Expectancy Violation About Teachers' Hours Spent for the Valued Tasks on Their Satisfaction

First of all, we investigated to identify which tasks are important for teachers for their professional satisfactions and personal enjoyment. Table 3 shows how important the 16 items associated with teachers' life as teachers are for teachers. The top 5 items chosen by teachers were, valuing personal time, not staying too long at school, knowing students well, preparing for great lessons, and being skillful of teaching. In addition to this result, we also used the principal components analyses to better understand what sort of tasks they value as teachers (Table 4 & 5). As a result, we found that teachers values 2 things: 1) professional development and being skillful of teaching and 2) balancing personal time with their professional time. The details are explained below.

Principal components analysis was used to identify and compute composite scores for the factors

Table 3:

Descriptive statistics in order of the importance of the combined scores

(item names)	Items potentially important for teachers' Professional Satisfaction (SP) and Personal Enjoyment (PE)	PS		PE		PS&PE combined*
		M	*SD*	*M*	*SD*	*M*
value personal time	Being efficient: Finish necessary tasks as quick as possible, so that I can spend time for myself	5.24	0.97	5.32	1.00	5.28
not stay too long	Not staying at school too long	5.22	1.04	5.32	0.95	5.27
know students	Knowing students very well in order for me to give them good guidance	5.24	0.96	5.06	1.16	5.15
prepare for lesson	Preparing as great lessons as possible	5.01	0.90	4.97	1.02	4.99
skillful of teaching	Being skillful of teaching subjects	4.99	0.93	4.97	1.01	4.98
new learning	Always learning something new	4.94	0.99	4.83	1.05	4.89
trusting relationship	Building a trusting relationship with other teachers	5.01	0.97	4.67	1.22	$t(77)=3,21$, $p<.01$
update teaching	Keeping you updated with most recent teaching theories and methods	4.72	1.02	4.62	1.13	4.67
popularity	Being popular among students	4.03	1.42	4.55	1.28	$t(77)=-5.11$, $p<.01$
honesty	Being able to share honest feelings and thoughts with other teachers, even though you disagree with others	4.38	1.28	3.92	1.51	$t(77)=3.55$, $p<.01$
teacher as company	Enjoying the company of other teachers	3.97	1.51	4.22	1.56	4.10
independent decision	Being able to sometimes make my own choices that may be different from the other teachers	4.08	1.35	4.05	1.53	4.07
role model at school	Being seen as a role model from students while I am at school	4.28	1.25	3.69	1.41	$t(77)=5.02$, $p<.01$
role model off school	Being seen as a role model from students even when I am not working	3.27	1.47	2.92	1.61	$t(77)=2.39$, $p<.01$
availability off school	Making yourself available for students as much as possible even during your off time	2.99	1.68	2.97	1.74	2.98
long working hours	Working long hours with other teachers	2.91	1.39	3.03	1.52	2.97

* Scores for PS and PE are combined only when the means of PS and PE are not signifucantly different. When different, the result of t-tests are reported.

underlying the list of tasks and beliefs associated with working as teachers. The factor loading matrix for this final solution is presented in Table 4.

The result of factor analyses shows that teachers have 5 and 6 groups of tasks/ideas that affect teachers' professional satisfaction and personal enjoyment, respectively. Combined these data with the mean values showing how important teachers find each task/idea, it is suggested that teachers find 1) spending time for their professional development (Factor: professional development) and 2) securing personal time (Factor: work-life balance) are important for their both professional satisfaction and personal enjoyment. In terms of work-life balance, teachers care about the total working hours. Thus, it come down to the Hypotheses 1 and 2. When we apply the idea of professional development to how teachers spend time at work in a regular day, we adopted the time that teachers use for "preparing and grading." Therefore, we have analyzed the influence of the expectancy violation about teachers' time spent for preparing and grading on their satisfaction.

First, among the total of 79 teachers, 30 teachers did not have any prediction about how

Table 4

Factor loadings based on a principal components analysis with oblimin rotation for 16 items that may be important for teachers' professional satisfaction (n =69)

	Factor			
	professional development	work-life balance	dedication	independent will
new learning	0.92			
update teaching	0.90			
prepare for lesson	0.86			
skillful of teaching	0.71			
know students	0.45		0.59	
value personal time		0.86		
not stay too long		0.78		
popularity			0.78	
long working hours			0.72	
availability off school			0.68	
role model off school			0.66	
role model at school			0.65	
teacher as company		0.46	0.55	
trusting relationship			0.48	
independent decision				-0.97
honesty				-0.89

Note. Factor loadings < .4 are suppressed.

Note. Bolded are the top 5 items chosen by teachers as most important for their professional satisfaction

long they will spend for preparing and grading once they start working as teachers. These teachers were excluded from this analysis. Among 49 teachers who had expectations, 24 teachers (49.0%) reported that they expected to spend more time than actual for preparing and grading (Table 6). This group of teachers would experience positive violation if they ideally want to spend less time than actual, and they would experience negative violation if they ideally want to spend more time than actual. In fact, 75.0% of these teachers ideally want to spend more time for preparing and grading and thus experience negative violation.

Second, among 49 teachers who had expectations, 20 teachers (40.8%) reported that they

Table 5

Factor loadings based on a principal components analysis with oblimin rotation for 16 items that may be important for teachers' personal enjoyment (n =69)

	Factor				
	professional development	work-life balance	dedication	independent will	relation development
new learning	0.91				
prepare for lesson	0.90				
update teaching	0.89				
skillful of teaching	0.85				
know students	0.61				0.40
trusting relationship	0.48				0.41
not stay too long		0.91			
value personal time		0.89			
role model off school			0.90		
availability off school			0.88		
role model at school			0.67		
honesty				0.91	
independent decision				0.86	
long working hours				0.44	
teacher as company				0.42	0.73
popularity					0.69

Note. Factor loadings < .4 are suppressed.

Note. Bolded are the top 5 items chosen by teachers as most important for their personal enjoyment

Table 6

Percentages of teachers depending on their expected and ideal time compared to their actual time spent for preparing for teaching and grading (n =49)

		Ideally want to spend time:			
		less	just as it is	more	(total)
Expected to spend time:	less	34.7%	4.1%	2.0%	40.8%
	just as it is	2.0%	8.2%	0.0%	10.2%
	more	6.1%	6.1%	36.7%	49.0%
	(total)	42.9%	18.4%	38.8%	100.0%

Table 7

Differences in the effect of differences between ideal and actual time spent for preparing and grading on professional satisfaction and personal enjoyment depending on the size of the differences between the expected and actual time spent for preparing and grading

		Effect of having the actual hours longer than the ideal hours on professional satisfaction and personal enjoyment	
		relationship to satisfaction	relationship to enjoyment
difference between expected and actual hours	Smaller	No	elementary school teachers = Positive relationship middle/high school teachers = No
	Larger	No	elementary school teachers = No middle/high school teachers = Positive relationship

expected to spend less time than actual for preparing and grading. This group of teachers would experience positive violation if they ideally want to spend more time than actual, and they would experience negative violation if they ideally want to spend less time than actual. In fact, 85.0% of these teachers ideally want to spend less time for preparing and grading and thus experience negative violation.

Third, there were 5 teachers (10.2%) whose expected hours and actual hours spent for preparing and grading matched perfectly. That is, these teachers experience the confirmation, as their expectation was confirmed.

Finally, to test Hypothesis 3 and 4, we examined the influence of the expectancy violation regarding teachers' time spent for preparing and grading on their satisfaction. Our data shows that there is no difference in teachers' satisfaction level depending on the types of expectancy violation (positive/negative violation or confirmation) regarding time spent for preparing and grading.

Post-Hoc Analysis Associated With Hypothesis 3 & 4: Influence of Accuracy in Teachers' Predications About Total Working Hours on Their Satisfaction

We have examined if the size of the gap between the teachers' expected and the actual time spent for preparing and grading affects their satisfaction. We found no influence. That is, having accurate prediction about how long they will spend for preparing and grading before they become teachers does not help them gain more satisfaction as teachers.

We have also examined if the difference between the teachers' ideal and actual time spent for preparing and grading affects their professional satisfaction and personal enjoyment. Again, we found no influence. Teachers' satisfaction level does not change regardless of how different their ideal time is from the actual time that they spend for preparing and grading.

Moreover, we have divided teachers into 2 groups, depending on their accuracy in their expectations about how long they will spend for preparing and grading while working at school. The average difference between the expected and actual time spent for preparing and grading was 0.93 hours per day in absolute values. We grouped up teachers whose predictions were relatively accurate and the gap between the expected and actual time spent for preparing and grading was less than 0.93 hour per day. Among these teachers, only for elementary school teachers, the longer they actually spend exceeding their ideal time for preparing and grading, the higher personal enjoyment teachers experience, r=-.56, p<.05. That is, elementary school teachers who had accurate predictions about how much time they will spend for preparing for teaching and grading and who actually spend more time than they ideally want for preparing and grading are experiencing high levels of personal enjoyment. This effect was not found for middle/high school teachers.

Also, there were the other group of teachers whose predictions were not quite accurate and the gap between their expected and actual time spent for preparing and grading was 0.93 hour or more per day. Among these teachers, only for middle and high school teachers, the longer they actually spend exceeding their ideal time for preparing and grading, the higher personal enjoyment teachers experience, r=-.60, p<.05. This effect was not found for elementary school teachers. To summarize, the general tendency here is that teachers have high levels of personal enjoyment when they actually spend longer than they ideally want to.

Discussion

Our research found that teachers tend to have higher personal enjoyment when they do not work too long exceeding their ideal working hours. However, this effect of the gap between the ideal and actual working hours on the teachers' enjoyment can be lessened by having the accurate images of how long they will work as teachers before they become teachers.

In the context of teachers' working hours, the dynamics of expectation violation is unique at least in 2 ways. First, the teachers' working hour is well-known to pre-service teachers. Although it has been an unacceptable, enduring, problematic social issue, it is not likely that the pre-service teachers hold their expectations to leave schools soon after their contacted work hours end for a day. Therefore, the actual working hours would not be shockingly surprising to many teachers. Second, teachers' actual work hour is not externally constructed, and it is not purely constructed by the teachers as individuals, either. Combination of the self (teachers) and the generalized others (Mead, 1934: teachers' perceptions of how other people around them would think) produces teachers' actual work hours. Some teachers may want to leave at 5pm, which is when their contacted work hour ends, but they may feel it is not appropriate to leave then as other teachers, especially their older colleagues, are still working at school. These are important characteristics when we interpret the teachers' expectations and

actual life as teachers.

Also, the interpretation of the length of time teachers spent for preparation and grading is also complicated. While we found that being skillful and able to teach well are important for teachers to be professionally satisfied, 42.9% of teachers ideally want to spend less time on preparing and grading than actual. This result suggests that 2 possible ideas. One is that teachers do not necessarily want to spend long time for the valued tasks. While preparing and grading is important tasks for teachers to feel satisfied as teachers, it does not reflect in the length of time. Second, it is also possible that the time for preparing and grading includes the tasks that teachers do not personally want to do but that they are expected to do as a part of the organization. In Japan, teachers traditionally value the idea that all teachers teach the same contents in the same way to all of the same-grade students in a school (e.g. Suzuki, 2010). Therefore, it is not unusual for teachers to experience conflict between what they personally value and what they are expected to do as members of the teachers' organization. For example, a teacher may be assigned to prepare a handout for all math teachers to use to teach a particular content, but s/he may find this handout ineffective and wishes to teach the content in a different way.

Moreover, our result shows that the impact of the expectancy violation regarding the time for preparing and grading on teachers' satisfaction is different depending on the levels of schools. The general tendency we found is that the more time they actually spend for preparing and grading than they ideally want to, the higher teachers' personal enjoyment is. Put differently, the less time they actually spend for preparing and grading than they ideally want to, the lower teachers' personal enjoyment is. Therefore, this result was consistent with our prediction that teachers want to spend decent time for the tasks they value. However, this relationship was found only for elementary school teachers whose actual time spent for preparing and grading is similar to their expected time and for middle school and high school teachers whose actual time spent for preparing and grading is not very similar to their expected time.

This result led us to further investigate what expected, actual, and ideal time mean for teachers. We have conducted additional analyzes and they revealed that elementary school teachers' actual time spent for preparing and grading is positively correlated with their expected time, r=.50, p<.01, but not with their ideal time, r=.06, p=n.s.. Japanese elementary school teachers typically teach and spend time with students at least until around 4pm without any break or designated time for preparing and grading (e.g. Japan Educational Press, 2022). It would be very important for teachers to have accurate image of how much time they will spend for preparing and grading during the rest of the limited work hours. Our data shows that spending more time for preparing and grading, even when their actual hours are longer than how long they ideally want to spend, helps elementary teachers to boost up their personal enjoyment, only when their actual time is similar to their expected time. One possible interpretation is that elementary school teachers desire to spend time for preparing and grading especially when they feel their life as teachers are under control (when they predicted well).

In terms of middle and high school teachers, their actual time spent for preparing and grading is positively correlated with their ideal time, r=.55, p<.01, but not with their expected time, r=.05, p=*n.s.*. Japanese middle school and high school teachers typically teach 4-5 classes per day. Compared to elementary school teachers, middle school and high school teachers have some more non-teaching time. This can mean that it is easier for middle and high school teachers to adjust how much time they spend for preparing and grading according to their ideal images, compared to elementary school teachers. Our data shows that spending more time for preparing and grading, even when their actual hours are longer than how long they ideally want to spend, helps middle school teachers to boost up their personal enjoyment, only when the gap between their expected and actual time is large. One possible interpretation is that, when their life as teachers are different from how they expected, spending time for preparing and grading helps middle school and high school teachers to boost up their personal enjoyment.

Finally, it is worth noting that none of the teachers' expected, actual, and ideal time affected their professional satisfaction. This data shows how complicated teachers' professional satisfaction is. It was at least not related to how long teachers spend time at school or spend time for preparing for class and grading. It suggests that teachers may or may not gain their professional satisfaction depending on how accomplished they feel by engaging in tasks, regardless of how much time they spend for these tasks. Our data also suggests that personal enjoyment and professional satisfaction are two different ideas for teachers. We obtained different results for them, which suggests that we should keep treating these two concepts separate in our future research.

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