

TEACHER'S PAY AND POVERTY IN MONGOLIA

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ABSTRACT

This research aims at studying the secondary school teachers' pay design, and understanding the teacher poverty in Mongolia. In the survey, the convenient sampling was adopted and covered 82 teachers. The SCAT method was used for analysis of an open ended question. This research found that teachers are not only live in poverty but also they are indebted, and therefore, they desire to increase their pay by 2.3 times. More importantly, our research suggests that in order to overcome the teacher poverty in Mongolia, it is essential to increase the base pay of teachers, as the supplementary pays are also determined based on the base pay.

Keywords: teacher pay, teacher poverty, secondary school, Ulaanbaatar, Mongolia.

INTRODUCTION

Before 1921, Mongolia was a backward country, with no formal education. During the 70 years of socialism (1921-1990), Mongolia achieved the universal education of eight years, and presumably there was no illiteracy. During socialism, teachers and doctors were receiving similar salary with other government officers¹. During transition away from socialism, the government of Mongolia faced with economic crisis and received assistance from international organizations, like IMF and WB, and implemented structural adjustment program measures. These reform measures were similar to those implemented in African countries in 1980s. In developing countries, which receive support from the international organizations, like IMF and World Bank, the freezing level of government wages is likely to be included as a condition for receiving financial support (IMF, 1986). Since transition away from socialism, Mongolia has been receiving financial support from international organizations, and the government wages has not been increasing in line with the inflation mainly due to poor macroeconomic performance of the country. Teachers have been receiving the low level of wages similar with any other government employees, except the lawyers.

In 2017, teachers went on strike to increase their salary in Mongolia for the first time, and it was informed by the mass media. Many people supported the strike while few argued that the inspection of teachers should be conducted. This research studies teacher pay, and to lesser extent its differentials, around the time of this strike. Furthermore, it studies reasons for shortage of money to understand the teacher poverty. Before this, it gives a brief introduction to the teacher pay and compensation design in Mongolia.

¹ Around 1970-1980s, the author's mother was working in the special school for deaf and dumb children in Ulaanbaatar, and at that time, she was getting a salary of a minister.

DATA COLLECTION AND METHOD

During the academic year 2017-2018, following the first teacher strike in 2017, the author thought research methodology courses for two (autumn and winter) classes of master students at the Mongolian National University of Educationⁱⁱ. The majority of master students were secondary school teachers from different aimags (provinces) of Mongolia. As part of research methodology course, we conducted a small scale sample survey on “Teacher salary” in the class. Thus the convenient sampling was adopted as data was collected right in the class.

In the class of research methodology, as part of training, students were asked to formulate a questionnaire to collect information on teacher salary, but later the author gave the ready made questionnaire to be filled up by the students. The questions were designed mainly with ‘yes/no’ answers. Following the ‘yes/no’ answer, ‘why’ and ‘how’ questions were formulated to obtain in-depth understanding of the issue behind the teacher strike. Students of two classes worked on the data separately to finalize their assignment of the course of research methodology, and at the same time, the author obtained the MS Excel file from the students.

Later the author combined the two data sets. As a total, 82 observations were covered in the small scale sample survey, and the unit of observation was the secondary school teachers. At first, all open ended questions were analyzed by the author only. The SCAT (Steps for Coding and Theorization) methodⁱⁱⁱ, the method for analysing qualitative data, was employed to study complex responses to the open ended question “What is the major reason for shortage of money?”.

RESULTS

Teacher Pay and Compensation Design in Mongolia

In Mongolia, teacher pay and compensation design is similar to that in other countries, consisting of the base pay and the supplementary pay (see for e.g., Kimball et al. 2016). Following the teachers’ strike in 2017, in Mongolia government wages were increased slightly, roughly by 8 percent. The increased salary schedule of government service positions in kindergarten, and primary and secondary schools in Mongolia are given in Table 1.

Table 1. Salary schedule of government service positions in kindergarten, and primary and secondary schools, in Mongolia, 2019, tugrics per month

Salary steps, based on years of service	Position lane				
	TUBD-1	TUBD-2	TUBD-3	TUBD-4	TUBD-5
1	543875	651503	694193	758113	820151
2	547974	656689	699637	764373	827037
3	558387	669861	713468	780280	844534
4	584805	703279	748557	820631	868980
5	614276	740561	787701	865647	893425

Source: Annex 5, Government Order 24, dated 16 January 2019, <https://www.legalinfo.mn/annex/details/9088?lawid=13954>

Note: TUBD refers to the government service position lanes in kindergarten, and primary and secondary schools

ⁱⁱ MNUE

ⁱⁱⁱ The SCAT method is developed by Prof. Takashi Otani, Nagoya University, Japan. The SCAT form can be obtained from: <http://www.educa.nagoya-u.ac.jp/~otani/scat/scatform-eng.xls>

The government service position lanes in the kindergarten, and primary and secondary schools are given in Table 2.

Table 2. The government service position lanes in the kindergarten, and primary and secondary schools in Mongolia, 2019

Position lane	Government service positions in kindergarten, and primary and secondary schools			Relevant code in the national occupational classification	Equated position
	Managers	Workers	Assistant workers		
TUBD-5	1. Principle of secondary school 2. Head of kindergarten			1345-01 – 1345-07, 1341-01 – 1341-03	1. Head of special care and service kindergarten
TUBD-4	1. Manager of secondary school	1. Teacher in kindergarten		2351-03 – 2351-07, 2634-12, 2352-35, 2342-01 – 2342-04, 2342-06 – 2342-08	1. Teacher in special care and service kindergarten
TUBD-3		1. Instruction specialist in kindergarten 2. Social worker 3. Teacher in primary school 4. Teacher in secondary school		2351-01, 2351-02, 2341-01, 2341-02, 2635-22, 2635-35, 2330-01 – 2330-30, 2352-01 – 2352-32	1. Social worker in special care and service
TUBD-2		1. Teacher in boarding school/ dormitory		2359-01, 2352-34	
TUBD-1			1. Assistant teacher	2342-05, 2352-33, 2359-02	1. Assistant teacher in special care and service kindergarten and school

Source: Annex 2, Government Order 25, issued in 2019, <https://www.legalinfo.mn>

Based on the salary schedule (given in Table 1) and the position lanes (given in Table 2), the base pay of a teacher is determined. For example, the base pay of the assistant teacher who is at the lowest level of the position lanes (TUBD-1) and at the first salary step (apprentice), equals to 543875 tugrics per month (which is equivalent to 207US\$^{iv}). Thus if a teacher is a breadwinner of the household with 4 members then the per capita income of this household equals to 1.7US\$ per day after the renewal in 2019. It is below than the 1.9US\$ per day per person, the international poverty line prevailed in the developing countries.

In Mongolia, in addition to the base pay, various supplements or “adds-on” are given to teachers (see Table 3).

Table 3. Teacher supplementary pay in Mongolia

Type of supplementary pay	Amount
Extra teaching pay	
Extra hours teaching, above than 19 hours tugrics per hour
Additional training (club) tugrics per hour
Extra work pay	
Curator's pay	10 percent of the base pay
Looking after laboratory or cabinet	5 percent of the base pay
Managing didactic unit/ section/ club	5 percent of the base pay
Professional grade level pay	
Instruction specialist	10 percent of the base pay
Leading teacher	15 percent of the base pay
Consulting teacher	20 percent of the base pay
Competency pay	10-30 percent of the base pay
Rural area's pay	8 percent of the base pay in aimag center, and 10 percent in soum center and bag
Performance pay	upto 45 percent of the base pay, per quarter
Food and transport	as an average 11 000 tugrics per month

Source: Choisurent et al. (2019:121), Oyun-Erdene and Zolzaya (2019:166)

Note: (.... tugrics per hour) is given like this because it is subject to the school administration.

^{iv} 1US\$ was equivalent to 2631 tugrics in April 2019, <https://www.mongolbank.mn>

Type and amount of supplementary pay are approved by the Government order 354 issued in 2007, and other legislative acts. According to rules and regulations, teachers do not receive any supplementary pay during the apprentice period of five years. Food and transport pay is negligible, and it is mainly driven from the internal financial sources of the school. Among others, competency and performance pays are based on the evaluation of a teacher.

In our survey, out of 82 teachers, 22.0 percent of teachers receive the base pay only, and do not receive any supplementary pay. Exactly ½ of teachers receive two and three types of supplementary pay, and only 2.4 percent receive four types of supplementary pay (Figure 1). It is partly associated with the younger age of teachers in the sample, as they are under 39 years of age.

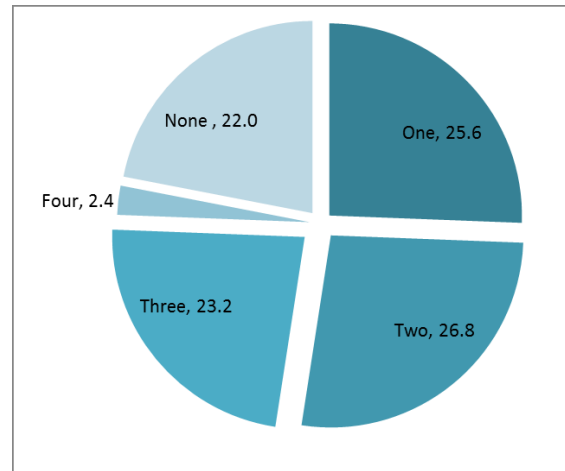


Figure 1. Number of supplementary pay, Mongolia, 2017

Among different types of supplementary pay, as given in Figure 2, teachers are most likely to receive two types of pay, namely professional grade level pay (41.5%) and curator’s pay (39.0%).

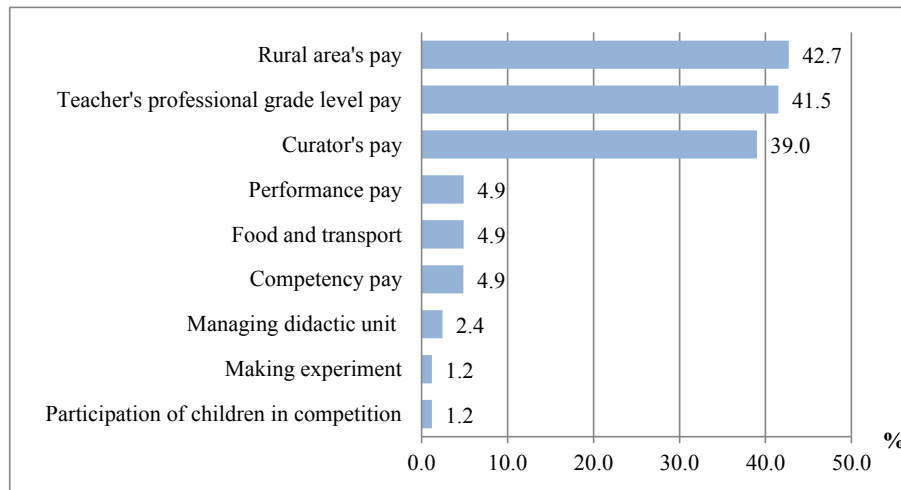


Figure 2. Type of supplementary pay, Mongolia, 2017

On the other hand, teachers are less likely to receive performance pay (4.9%) and competency pay (4.9%). Thus our survey suggests that around ½ of teachers receive 20-30 percent of the base pay as a supplementary pay, and therefore, the supplementary pay is less likely to increase the teacher’s overall pay.

Therefore, teachers view that the current design of the supplementary pay in Mongolia has a shortfall, leaving several activities with no rewards (Figure 3).

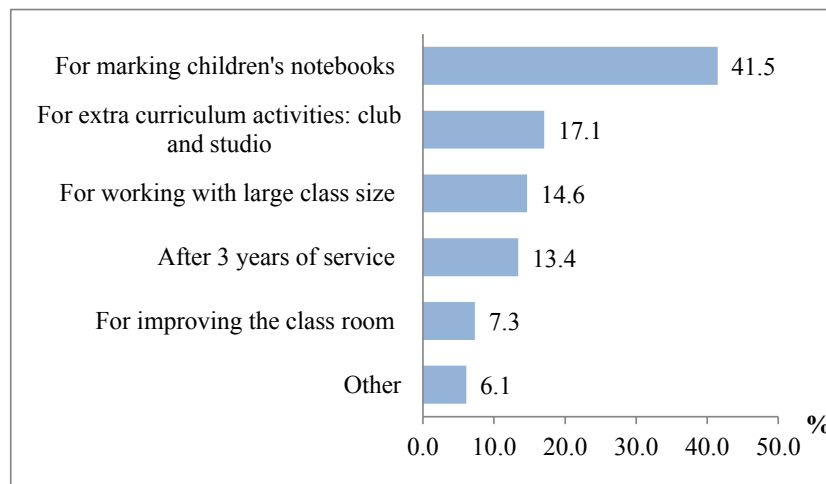


Figure 3. Teacher’s activities need for rewarding, Mongolia, 2017

According to our survey, almost ½ teachers wish to receive supplementary pay for marking children’s notebooks. More importantly, teachers desire to receive supplementary pay after three years of service (13.4%), but not after finishing the apprentice period of five years.

TEACHER’S CURRENT PAY

According to our survey, in 2017, as an average, teachers receive 539 thousand tugrics per month as a base pay in Mongolia (first column of Table 4), and it is equivalent to 220US\$^v. Thus if a teacher is a breadwinner of the household with 4 members then the per capita income of this household equals to 1.8US\$ per day. According to the maximum value, one teacher receives 1250 thousand tugrics per month, and because of this, mean (559.72) is slightly greater than the median (539.00), and the base pay data is positively skewed (a₃=5.45).

Table 4. Descriptive statistics of teacher's current pay and the desired pay, thousand tugrics per month, Mongolia, 2017

	Current pay		Desired pay
	Current base pay only	Current base pay and supplementary pay	
Order statistics			
Minimum	378.00	378.00	700.00
Median	539.00	645.00	1500.00
Maximum	1250.00	1250.00	2500.00
Range	872.00	872.00	1800.00
IQR	15.00	110.00	600.00
Mean based statistics			
Mean	559.72	649.25	1373.78
SD	93.94	108.28	320.00
Skewness (a ₃)	5.45	2.15	0.18
Kurtosis (a ₄)	37.60	11.27	0.80
Sample size	81	81	82

^v 1US\$ was equivalent to 2431 tugrics in September 2017, <https://www.mongolbank.mn>

In terms of spread, the interquartile range is small, and equals to 15 thousand tugrics only. Furthermore, the shape of box plot suggests that the majority of teachers receive 500-600 thousand tugrics per month as a base pay (first box plot of Figure 4).

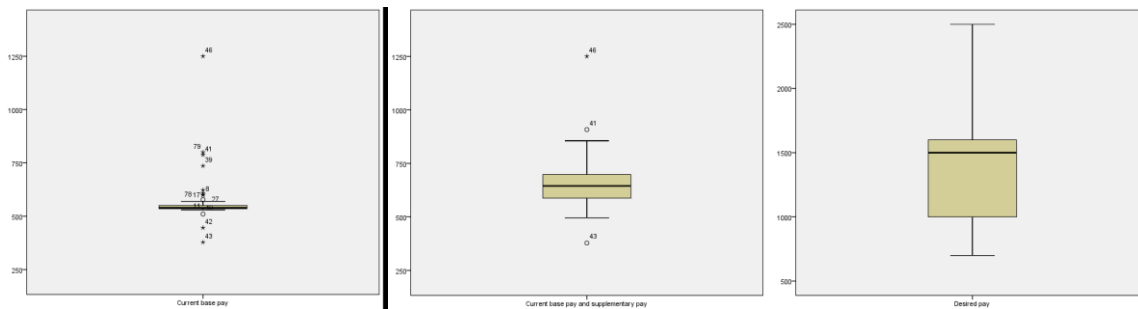


Figure 4. Box plot of teacher current pay and the desired pay

In 2017, as an average, teachers receive 645 thousand tugrics per month, including the supplementary pay (second column of Table 4), and it is equivalent to 265US\$^v. Thus if a teacher is a breadwinner of the household with 4 members then the per capita income of this household equals to 2.2US\$ per day. In our survey, 78 percent of teachers receive at least one type of supplementary pay. Thus, the level of current pay increases by 106 thousand tugrics per month, when we add supplementary pay on the base pay. According to the maximum value, one teacher receives 1250 thousand tugrics per month, and because of this, mean (649.25) is slightly greater than the median (645.00), and the current base pay and supplementary pay data is positively skewed ($a_3=2.15$). In terms of spread, the interquartile range equals to 110.00, and it is greater by 95 thousand tugrics than the interquartile range of current base pay only (IQR=15.00). Furthermore, the shape of box plot suggests that the majority of teachers receive 600-700 thousand tugrics per month, including the supplementary pay (second box plot of Figure 4). Thus our survey suggests that the supplementary pay does not increase teacher pay at sufficient level, merely by 100 thousand tugrics.

According to our survey, teachers desire to increase their pay by 2.3 times. In 2017, as an average, teachers desire to receive 1500 thousand tugrics per month (third column of Table 4). According to the minimum value, teachers desire to receive at least 700 thousand tugrics per month, and because of this, the mean (1373.78) is slightly lower than the median (1500.00), and the desired pay data is slightly positively skewed ($a_3=0.18$). In terms of spread, the interquartile range equals to 600.00, as the lower quartile is 1000 thousand tugrics and the upper quartile is 1600 thousand tugrics. The median is situated at the upper end of the box plot, and the middle of body of the desired pay data is positively skewed (third box plot of Figure 4). In other words, $\frac{1}{2}$ of teachers desire to receive 1000-1600 thousand tugrics per month. Furthermore, the coefficient of kurtosis ($a_4=0.80$) shows that the tail at the upper end of the distribution of desired pay data is fat. In other words, the majority (or $\frac{3}{4}$) of teachers desire to receive more than 1000 thousand tugrics per month.

THE DIFFERENTIALS IN TEACHER'S PAY

In Mongolia, public and private sectors do exist in parallel in the education sector, and teacher pay tends to differ by ownership of the school. Teachers in private schools are likely to receive more pay than those in public schools (Table 5). As an average, teachers in private schools receive 856 thousand tugrics per month, and it is greater than those in public schools (645 thousand tugrics) by 211 thousand tugrics. In both private and public schools the median teacher pay is close to the mean. The teacher pay data is almost symmetrical for both public

and private schools. Though teacher pay data in public schools is slightly negatively skewed ($a_3=-0.45$) while that in private schools slightly positively skewed ($a_3=0.42$). In terms of spread, the interquartile range equals to 103 thousand tugrics in public schools, and it is lower than that in private schools (412 thousand tugrics). The median is situated almost in the middle of the box plot, and the middle of body of the teacher pay data is also symmetrically distributed both in public and private schools (Figure 5).

Table 5. Descriptive statistics of teacher’s pay, by type of ownership of the school

	Public school	Private school
Order statistics		
Minimum	378.00	535.00
Median	645.00	856.00
Maximum	806.00	1250.00
Range	428.00	715.00
IQR	103.00	412.00
Mean based statistics		
Mean	634.74	869.80
SD	74.45	256.50
Skewness (a_3)	-0.45	0.42
Kurtosis (a_4)	0.75	1.67
Sample size	76	5

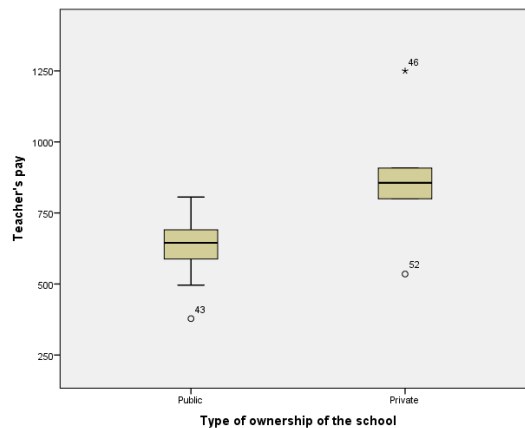


Figure 5. Box plot of teacher pay by ownership of the school

In other words, ½ of teachers in public schools receive around 600-700 thousand tugrics per month while those in private schools receive 800-900 thousand tugrics per month.

Compared to other professional grade, the leading teachers are likely to receive more pay than teachers with no grade and instruction specialist teachers (Table 6). As an average, leading teachers receive 691 thousand tugrics per month, and it is close to the mean (686.86). Therefore, the leading teacher pay data is symmetrical ($a_3=0.00$). In terms of spread, the interquartile range of the leading teacher pay is 86.00 thousand tugrics. It is lower than that for instruction specialist teachers (74.00) and teachers with no grade (112.00). The median of leading teacher pay is situated in the middle of the box plot, and the middle of body of the leading teacher data is also symmetrically distributed (third box plot of Figure 6). On the other hand, teachers with no grade (first box plot) are likely to receive lower pay than the instruction specialist teachers and the leading teachers, both in terms of level and spread.

Table 6. Descriptive statistics of teacher pay, by professional grade

	Teachers	Instruction specialist teachers	Leading teachers
Order statistics			
Minimum	378.00	534.00	618.00
Median	607.50	682.00	691.00
Maximum	908.00	1250.00	746.00
Range	530.00	716.00	128.00
IQR	112.00	74.00	86.00
Mean based statistics			
Mean	616.07	684.56	686.86
SD	97.70	118.83	46.38
Skewness (a_3)	0.88	3.53	0.00
Kurtosis (a_4)	2.06	17.02	-0.84
Sample size	42	32	7

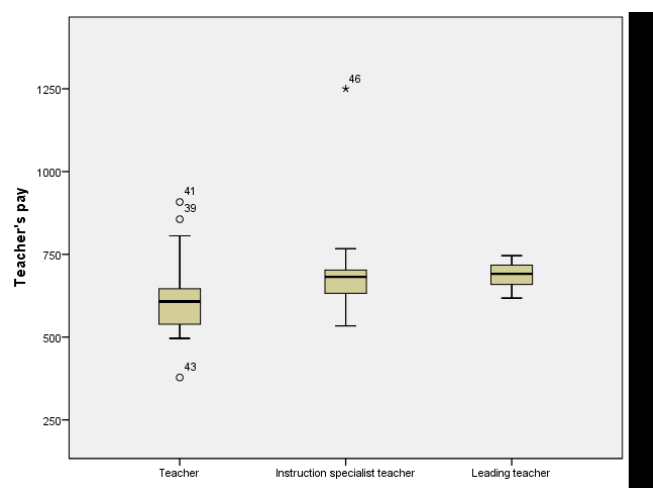


Figure 6. Box plot of teacher pay by professional grade

The box plot of teachers with no grade is lower and wider than that of the instruction specialist teachers and the leading teachers. It is mainly because young teachers in apprentice period are not entitled to the supplementary pay for 5 years. Therefore, teachers desire to have a shorter apprentice period of 3 years.

TEACHER’S POVERTY

In our survey, the majority (or 98.8%) of 82 teachers support the teacher strike to increase their salary, and 92.7 percent of them say that the teacher pay is not sufficient, and live in poverty in Mongolia. In order to understand the teacher poverty, it was asked that “What is the major reason for shortage of money?”. As a total 72 teachers give response to this question, and the responses are analysed using the SCAT method.

In our survey, more than 1/3 teachers face shortage of money due to low wages (36.1%), the income side (Figure 7). In addition to having the already low base pay, the supplementary pay is not always given, as it is subject to school administration and government budget. Almost ½ of teachers face shortage of money to pay short or long term loans (48.6%). In other words, teachers not only live in poverty but also they are indebted. Also some teachers

view that teachers live in poverty because of the failure of macroeconomic policy, as the level of government wages does not increase in line with the inflation in the economy (1.4%). Apart from the insufficient income side, teachers face poverty due to high cost of living (5.6%), mainly high cost of consumer and food products. Teachers' poor housing provision (1.4%) is another factor for living in poverty. Teachers in urban areas live in rented housing as well as take a long term loan to purchase housing. On the other hand, teachers in rural areas are less likely to face poverty due to the cost of housing as they are more likely to live in traditional housing, but which has no sewage system. Apart from housing, and consumer and durable goods, teachers face poverty due to educational expenditure, mainly due to payment of tuition fee of children (1.4%).

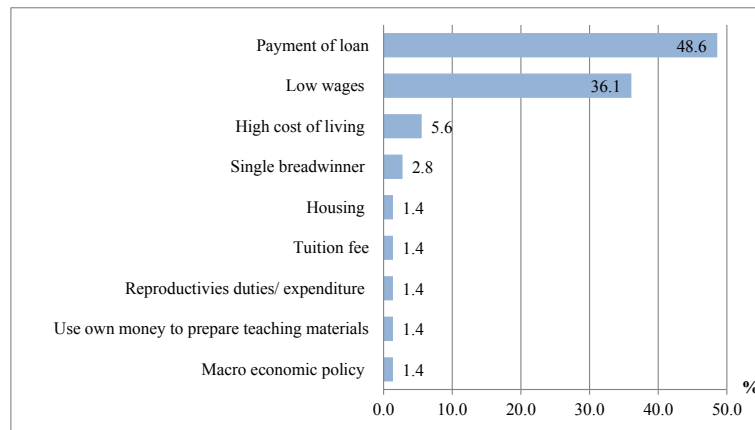


Figure 7. Major reason for shortage of money

Teachers face shortage of money because of social factors, like unemployment and gender. Teachers who have an unemployed person in the family face serious shortage of money because of serving as a single breadwinner (2.8%), with the low income. Female teachers who involve in reproductive duties are prone to poverty, due to expenditure during reproductive period and on the kids (1.4%). More interestingly, teachers face shortage of money as they use own money on teaching (1.4%).

Table 7. Descriptive statistics of money spend on teaching

	Total	Teachers	Instruction specialist teachers	Leading teachers
Order statistics				
Minimum	0.00	0	18	25
Median	40.00	40	40	40
Maximum	200.00	200	100	65
Range	200.00	200	82	40
IQR	20.00	25	20	20
Mean based statistics				
Mean	47.00	48.78	46.22	41.43
SD	26.95	32.24	22.33	14.35
Skewness (a ₃)	2.88	3.07	1.42	0.55
Kurtosis (a ₄)	13.34	13.31	1.57	-0.71
Sample size	76	37	32	7

Teachers use own money for the school as the school fails to provide necessary materials for teaching, mainly due to the limited financial sources for operational costs. In our survey, 95 percent of teachers say that they use own money for teaching. The descriptive statistics of money which is used on teaching in the past month is given in Table 7. In our survey,

according to median, as an average, teachers spend 40 thousand tugrics on teaching per month. According to the maximum value, one teacher uses 200 thousand tugrics per month, and due to this, mean (47.00) is slightly greater than the median, and the data is positively skewed ($a_3=2.88$).

In terms of spread, the interquartile range equals to 20 thousand tugrics. The median is situated exactly in the middle of the box plot, and the middle of body of the data is symmetrically distributed (Figure 8).

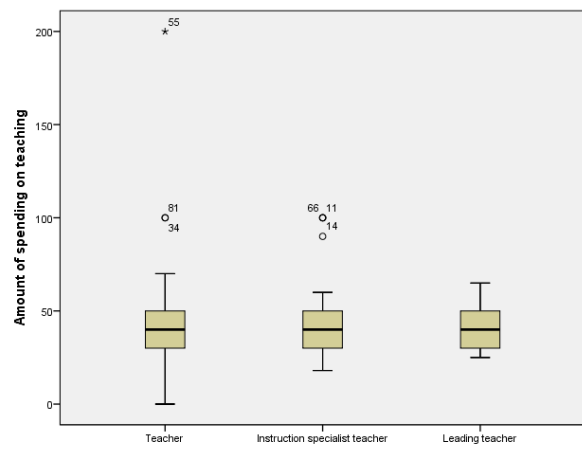


Figure 8. Box plot of money spend on teaching

In other words, $\frac{1}{2}$ of teachers use 30-50 thousand tugrics on teaching per month. This pattern is remained the same for different professional grades. According to mean, compared to other professional grade, teachers with no grade use the largest amount of money on teaching per month. It is mainly due to the maximum value of 200 thousand tugrics. Also one teacher with no grade and two instruction specialist teachers use 100 thousand tugrics on teaching per month. The majority ($\frac{3}{4}$) of teachers use 20-70 thousand tugrics on teaching per month.

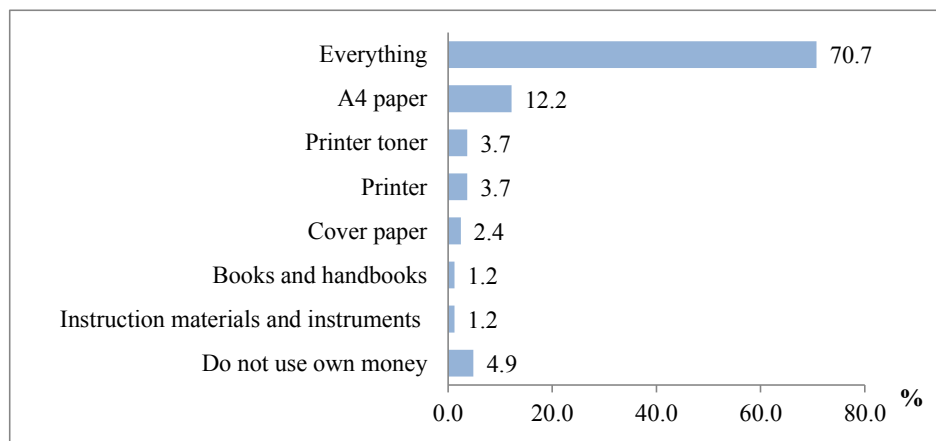


Figure 9. Items of spending own money on teaching

The majority of teachers say that they use own money on everything (70.7%) for teaching (Figure 9). Some teachers say specific items, like for purchasing a printer (3.7%), printing toner (3.7%), A4 size paper (12.2%) and cover paper (2.4%). To lesser extent, teachers use own money for preparing instruction materials and instruments (1.2%), and to purchase books and handbooks (1.2%).

CONCLUSION

In Mongolia, teachers went on strike to increase their salary in September 2017 for the first time in its history. This research found that teachers not only live in poverty but also they are indebted, and therefore, they would like to increase their pay by 2.3 times.

In Mongolia, the government wages were not increasing in line with the inflation since transition away from socialism, since 1990. According to our survey, in 2017, teachers, as an average, receive 645 thousand tugrics (265US\$), including the supplementary pay. It is around the international poverty line of 1.9 US\$ per day if a teacher is a breadwinner of the household with 4 members. Teacher pay in private schools is slightly greater than that in public schools, by 211 thousand tugrics. However, teacher pay in private schools tends to vary greater than that in public schools. Therefore, almost all (92.7%) teachers live in poverty in Mongolia.

However, the most important factor for living in poverty was not the low wages (36.1%), the well known factor. But it was the payment of loan (48.6%), and half of teachers are indebted. Furthermore, teacher's livelihood becomes more vulnerable if a teacher serves as a breadwinner or engages in reproductive duties. Teachers also face poverty because they have to cover some part of operational cost of the school. Teachers spend as an average 40 thousand tugrics per month for purchasing all necessary materials for teaching.

Our survey suggests that it is better to increase the base pay of teachers because of four major reasons. The first is that, although more than $\frac{3}{4}$ of teachers receive supplementary pay, it does not increase the teacher pay sufficiently, roughly by 100 thousand tugrics per month. The second is that the supplementary pay design does not cover some important teacher activities, like marking student notebooks. The third is that some of the supplementary pay is likely to be subject to the decision of the school administration. Some teachers who are entitled to the supplementary pay do not get them because of the well known reason which is "shortage of budget". The fourth is that the amount of supplementary pay is low as it is determined based on the base pay which is already low. Thus in addition to increasing the teacher base pay, it is necessary to revise the supplementary pay design, in terms of type, amount and period.

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