

## SOCIAL READJUSTMENTS AND TEACHER'S LIFE EVENTS RATING SCALE

Ricardo Kamizaki and Fátima Faleiros Sousa  
University of São Paulo at Ribeirão Preto  
e-mail: rikami@hotmail.com

### ABSTRACT

*The main purpose of the present study was to compare the differences in social readjustments related with different levels of teacher's life, as measured by the social readjustment rating scale (SRRS) and the teacher's life event rating scale (TLERS). These scales were determined using both direct and indirect psychophysical scaling methods, like ratio scales and ordinal scales. This study was the replication of Miller and Rahe's study (1997). 43 life events, such as death of spouse, marriage, and 20 teacher's life events like students' disinterest were used. 138 teachers answered these questionnaires. The Kendall tau correlation among the samples were 0.74, the minor, and 0.97, the higher. The LCU from SRRS were approximately two times the LCU from TLERS, thus indicating that general life events produce more social disarrays in teacher's life than events from their professional life.*

Miller and Rahe (1997) replicated the study of Masuda and Holmes (1967), with the Social Readjustment Rating Scale (SRRS), and compared the data of 1965, 1977 and 1995. They found that the means of scales were 34, 42 and 49 life event units (LCU), respectively. This 47% increase in 30 years suggests that, with the passing the time, the life became more and more stressing. The Brazilian mean in 1993 was 38 LCU, indicating that, Brazilian people's stress levels are a little bit higher than American people (Kamizaki, Faleiros-Sousa & Da Silva, 2000). Other interesting data is related with the modulus used *marriage*, which in 1965 was the seventh of the list, it fell down, in 1977, to tenth, and then, in 1995, fell down to seventeenth, suggesting a change of relationship values with the passage of years. In Brazilian sample, *marriage* occupied the tenth place among the life events. Miller and Rahe (1997) also proposed an analysis with life event categories like *health, work, home and family, personal and social, and finances*.

In the present report, the SRRS questionnaire added with 20 teacher's life events (TLERS) was applied in 138 teachers from São Paulo State - Brazil. As defined, social readjustment measures the intensity and length of time necessary to accommodate to a life event, regardless of desirability of this event (Holmes and Rahe, 1967). We aimed to compare the data between different samples of schools' teachers and compare them with the means of the American sample (Miller & Rahe, 1997).

## METHOD

*Subjects:* 138 teachers, aged 20-62 years old, divided in six independent groups (six different schools).

*Materials:* Questionnaires were used as material.

*Procedures:* The magnitude estimation procedure was used, with *marriage* as modulus, valuing 50. The subjects judged the quantity of social readjustment required to accommodate each life event in proportion to the modulus. If the social readjustment needed for this life event was judged to be greater or smaller, then the subject must indicate proportionately how much greater or smaller by choosing a number that reflects this proportion. The teachers judged each 43 life events and 20 teacher's life events randomly presented.

## RESULTS AND DISCUSSION

The geometric means of magnitude estimates for Brazilian teachers and American sample with their respective ranks were calculated for each life event and for each group, and were then summarized in Table 1.

Life event *jail term* was judged to need the greatest degree of social readjustment for three samples, while *vacation* was the minor for three samples. The means from the six samples were quite the same, with little variability, with an overall geometric mean standing in 83.12. There is strong statistical correlation between rank orders from Brazilian samples, Kendall  $\tau = 0.92$ ,  $p < 0.001$ .

We suppose that there is a tendency to devote much more concern on individual matters than on the other's welfare. Data found support this interpretation, as long as life events related with individual matters tended to have their social readjustment increased, for example, *jail term* occupy first position with an absolute mean 433.27, *death of spouse* occupy the second position, with 365.08, and the third is *death of close family member*, with 292.92. We found an increasing tendency in social readjustment needed for *personal and social* life events and a decrease for *home and family* life events, as related to early studies. These results disagree with those found by Miller and Rahe (1997) and Kamizaki et al. (2000), that found *death of spouse* and others mourning life events needing the greatest degrees of social readjustments. Although these differences found between data from our work and other studies, there is a strong correlation between them, Kendall  $\tau = 0.83$ ,  $p < 0.001$ .

*Table 1:* Geometric means of life events from American sample - AME (Miller & Rahe, 1997), teacher samples S1, S2, S3, S4, S5, S6, and Brazilian mean of samples - BME, and rank order of life events from SRRS - RO.

Life Events (SRRS)	AME	S1	S2	S3	S4	S5	S6	BME	RO
Jail term	75.00	409.63	531.15	556.58	418.30	593.71	213.29	433.27	1
Death of spouse	119.00	297.71	639.62	286.80	304.26	238.40	560.02	365.08	2
Death of close family member	92.00	356.01	322.50	208.85	188.66	444.60	282.26	292.92	3
Fired from work	79.00	251.49	275.56	166.97	282.09	236.49	226.50	238.76	4
Mortgage or loan greater than US\$10.000	44.00	218.38	87.10	233.05	159.61	285.68	417.17	210.38	5
Foreclosure on a mortgage or loan	61.00	272.25	139.28	166.66	123.52	173.83	251.31	177.79	6
Divorce	98.00	153.75	242.67	197.18	211.45	126.49	126.46	170.03	7
Major personal injury or illness	77.00	182.54	127.60	161.75	158.50	142.42	231.61	163.29	8
Marital separation	79.00	111.24	105.29	226.93	177.38	132.08	239.38	157.08	9

Death of a close friend	70.00	218.38	173.31	120.87	130.55	73.93	107.22	125.33	10
Change in health or behavior of family member	56.00	138.62	64.62	104.61	96.14	122.27	66.26	93.38	11
Mortgage or loan less than US\$ 10.000	28.00	64.54	51.07	164.71	102.48	86.39	75.46	83.61	12
Trouble with in-laws	38.00	139.37	59.81	83.36	141.23	83.22	37.48	79.64	13
Change in number of arguments with spouse	51.00	93.78	71.56	54.81	74.46	68.22	41.27	64.77	14
Change in financial state	56.00	3.23	125.95	80.43	115.40	87.06	88.50	62.78	15
Marriage	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	16
Major business readjustment	62.00	127.65	52.23	63.87	41.67	78.39	12.48	48.95	17
Sexual difficulties	45.00	79.70	71.98	36.50	50.14	38.67	19.90	43.94	18
Changes in sleeping habits	26.00	33.22	32.43	50.15	41.98	34.08	81.51	43.18	19
Changes in living conditions	42.00	51.49	45.06	71.23	71.91	41.57	14.67	42.77	20
Minor violations of the law	22.00	37.42	26.42	31.36	56.68	39.77	55.41	39.79	21
Child leaving home	44.00	20.54	25.24	53.43	47.79	56.35	39.94	38.67	22
Spouse begins or ends work	46.00	22.55	40.18	59.69	76.78	22.92	31.63	37.64	23
Trouble with the boss	29.00	24.40	19.55	32.78	52.40	32.24	81.22	36.30	24
Change in work hours or conditions	36.00	50.17	33.73	35.58	37.95	14.25	29.16	29.94	25
Change in to different line of work	51.00	8.59	30.94	57.24	60.29	23.97	27.56	29.78	26
Change in school	35.00	41.80	21.60	74.99	48.00	11.96	7.65	23.80	27
Change in residence	41.00	16.10	27.79	28.58	46.30	21.62	7.22	21.80	28
Changes in responsibilities at work	43.00	4.04	26.92	38.00	72.82	23.63	6.26	19.61	29
Changes in eating habits	27.00	19.74	7.36	29.58	14.57	20.94	22.83	17.35	30
Changes in number of family get-togethers	26.00	17.20	21.74	15.01	18.73	19.39	6.33	15.40	31
Revision of personal habits	33.00	12.70	13.24	23.70	26.10	15.04	4.65	13.68	32
Begin or end school	38.00	5.49	14.89	34.52	13.95	16.74	6.35	12.89	33
Outstanding personal achievement	37.00	1.60	5.72	9.96	6.19	11.89	15.13	7.27	34
Christmas	30.00	2.35	1.90	25.99	6.52	19.03	1.22	5.12	35
Retirement	54.00	2.25	8.62	10.19	3.54	4.64	3.88	4.91	36
Gain of a new family member	57.00	4.47	5.95	5.16	3.02	6.29	2.40	4.34	37
Change in social activities	27.00	1.71	6.67	8.19	4.48	4.08	1.26	3.65	38
Change in church activities	42.00	5.24	2.28	5.97	2.57	5.57	2.19	3.57	39
Change in recreation	29.00	1.26	9.95	5.20	4.16	3.93	0.73	3.13	40
Pregnancy	66.00	1.01	3.12	9.86	0.64	5.57	3.50	2.83	41
Marital reconciliation	57.00	4.26	6.26	2.85	0.87	9.02	0.73	2.83	42
Vacation	25.00	0.10	2.63	2.18	1.37	1.69	0.11	0.79	43
<b>Number of Subjects</b>	427	25	25	20	21	25	22	138	
<b>Means</b>	49.00	82.74	84.45	85.70	82.46	82.05	81.40	83.12	

Brazilian samples,  $\tau = 0.92$  ( $p < 0.001$ ); intercultural samples,  $\tau = 0.83$  ( $p < 0.001$ ).

Table 2 summarizes data from judged social readjustment for life events from TLERS. From this Table, we could see that the teacher's life event *facing disrespectful students* was considered the greatest degree of social readjustment for four samples, while *exhibition classes* was considered the minor for two samples. Data indicate from their great variability that there is not a uniformity between the means of the six samples. These results point out the difference between the samples, probably due to different forms of the social environment of the cities, small, middle and larger cities. We found reliable differences between the samples. We used a Kruskal-Wallis One Way ANOVA on Ranks, under Student-Newman-Keuls Method (SNK), that resulted in  $H = 16.31$ , with 6 degrees of freedom,  $p = 0.012$ .

The similarities between samples S1 and S3 are probably due to social constraints. S1 was collected in a town of 50,000 habitants, where the pressure of student's parents over the teachers can be more higher than in larger cities, like the others samples, whose cities have more than 400,000 habitants. S3 was collected in a school located in the most dangerous district of São Paulo City, Jardim Ângela, where the murder rate is too high; thus the social pressure should be the fear of violence. The samples S4 and S5 are similar probably due to similar educational politics, characterized by a system of democratic decision taking, including the teachers in this process. Thus, the statistical differences can also be imputed to different forms of management in these schools. Despite of statistical differences, there are strong correlation between them, Kendall  $\tau = 0.88$ ,  $p < 0.001$ .

Table 2: Geometric means of samples S1, S2, S3, S4, S5, and S6, mean of samples - S, and rank order of life events from TLERS - RO.

Teacher's life events (TLERS)	S1	S2	S3	S4	S5	S6	S	RO
Facing disrespectful students	148.91	151.63	132.20	129.07	61.45	102.35	112.57	1
Facing indiscipline	220.10	111.90	116.23	109.77	115.56	52.60	108.12	2
Student's disinterest	266.30	80.17	111.90	89.60	84.42	78.09	101.07	3
Death of student	79.95	80.26	84.62	66.52	75.03	48.26	70.80	4
Classes partition	235.22	54.49	76.82	43.74	39.78	86.68	68.15	5
Popular criticizing for low quality of public education	121.92	88.92	82.19	55.97	44.54	37.76	63.45	6
Facing addict students	114.03	76.10	101.12	60.66	28.99	12.67	48.21	7
Verifying low performance of students	110.34	22.99	76.26	57.20	40.46	18.68	42.13	8
Serious disease of student	52.24	37.92	74.14	41.44	46.19	17.54	40.24	9
Correcting tests	55.89	10.82	27.76	40.04	27.67	17.67	25.18	10
Classes planning	33.88	26.19	34.18	35.82	14.73	14.56	23.78	11
Attending to reunions of debate of classes	30.32	16.12	21.26	16.51	24.42	8.34	17.61	12
Applying tests	24.36	12.50	29.85	14.14	11.96	5.40	13.46	13
Attending to meeting of parents and teachers	30.07	12.12	35.62	21.62	12.00	2.57	13.34	14
Filling accomplishment of classroom diaries	46.18	15.38	13.47	25.28	7.49	4.70	13.26	15
Wage	23.42	9.05	34.83	6.45	10.06	15.83	13.21	16
Classes preparation	17.23	10.42	25.24	17.98	5.47	4.97	10.63	17
Relationship with superiors	5.73	6.34	20.05	16.49	6.31	16.36	10.24	18
Test preparation	9.18	13.10	17.81	10.95	7.66	6.62	10.05	19
Exhibition classes	24.89	5.54	10.35	16.52	8.01	6.67	9.85	20
Number of Subjects	25	25	20	21	25	22	138	
Means	82.51	42.10	56.29	43.79	33.61	27.92	36.99	

Between Samples,  $\tau = 0.85$  ( $p < 0.001$ )

The Table 3 summarizes the geometric means of LCU of each subject taught from the two scales, SRRS and TLERS. Physical education teachers have the higher means, 192.71 from SRRS and 112.37 from TLERS, while artistic education teachers have the smallest means, 48.16 from SRRS and 22.56 from TLERS. This result from SRRS indicates that physical education teachers may consider life events much more stressing than artistic education teachers do. We found reliable differences between the samples, Kruskal-Wallis One Way ANOVA on Ranks, under SNK Method,  $H = 22.16$ , with 6 degrees of freedom,  $p = 0.05$ . Despite of these statistical differences found, there are strong correlation between them, Kendall  $\tau = 0.84$ ,  $p < 0.001$ .

The results from TLERS show a similar pattern to the SRRS data. We also found statistical differences between the samples, Kruskal-Wallis One Way ANOVA on Ranks, under SNK Method,  $H = 39.84$ , 9 degrees of freedom,  $p = 0.01$ . Despite of these statistical differences, there are correlation between them, Kendall  $\tau = 0.74$ ,  $p < 0.001$ .

Taken together the results of Table 3, the samples of physical education, biology, English and elementary education teachers should have a lower endurance to changes in their lives, comparing to the other subjects' teachers. These differences are probably due to some bias on teacher's formation.

Table 3: Overall geometric means of LCU (M), number of subjects (N) and rank order (RO) of each class subjects of SRRS and TLERS.

Subjects	M (SRRS)	N	RO	M (TLERS)	N	RO
Physical Education	192.71	5	1	112.37	5	1
Biology	121.53	17	2	55.85	17	5
Psychology	105.81	7	3	35.98	7	8
English	104.87	10	4	61.19	10	3
Mathematics	103.84	19	5	39.39	19	7
Elementary Education	92.19	22	6	57.91	22	4
Portuguese	76.54	26	7	39.62	26	6
Chemistry/Physics	74.87	8	8	29.87	8	9
History/Geography	69.81	17	9	63.4	17	2
Artistic Education	48.16	7	10	22.56	7	10

The Table 4 shows the overall geometric means and number of subjects by teacher categories from SRRS and TLERS scales. We did not found any statistical differences between the samples. As found by Miller and Rahe (1997), male teachers had the minor mean in SRRS, 55.16 LCU. Men have more prominent psychological defenses against assessing and reacting to recent life stress compared with same defenses for women. The same pattern was found for TLERS, with male teachers showing minor mean, 25.10 LCU, and no statistical differences from ANOVA.

We found strong correlations, from data of SRRS, between marital status, Kendall  $\tau = 0.97$ ,  $p < 0.001$ , gender, Kendall  $\tau = 0.96$ ,  $p < 0.001$ , fundamental and elementary teachers, Kendall  $\tau = 0.99$ ,  $p < 0.001$ , and permanent and temporary teachers, Kendall  $\tau = 0.97$ ,  $p < 0.001$ . We also found strong correlations, from data of TLERS, between marital status, Kendall  $\tau = 0.94$ ,  $p < 0.001$ , gender, Kendall  $\tau = 0.95$ ,  $p < 0.001$ , fundamental and elementary teachers, Kendall  $\tau = 0.95$ ,  $p < 0.001$ , and permanent and temporary teachers, Kendall  $\tau = 0.95$ ,  $p < 0.001$ .

Table 4: Overall geometric means of LCU (M) and number of subjects (N) by marital status, gender, high and elementary school, and permanent and temporary teachers from SRRS and TLERS.

Teacher Categories	M (SRRS)	N	M (TLERS)	N
Married	84.67	107	39.55	107
Single	63.48	31	50.46	31
Men	55.16	19	25.10	19
Women	84.33	119	46.21	119
High School	74.87	31	39.86	31
Elementary School	92.19	22	57.91	22
Permanent	65.40	55	31.50	55
Temporary	89.04	83	54.55	83

The Figure 1 summarizes the logarithm of overall magnitude estimates from our study as a function of Miller and Rahe's study (1997), and shows the power function generated by this plottage,  $n = 0.81$ . There were no statistical differences.

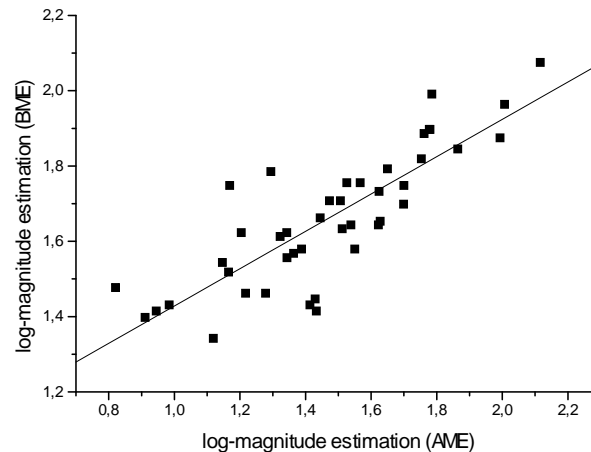


Figure 1: Relationship between the logs of overall geometric means of Brazilian teachers (BME) and the logs of geometric means of American subjects (AME),  $n = 0.81$ .

## CONCLUDING REMARKS

Our results showed that the overall geometric mean of the SRRS was 83.12, while the overall geometric mean found for TLERS was 45.27. We may argue that general life events were almost two times more stressful than professional life events, so they are considered much more important in teacher's life than their professional life. These results occurred probably as a function of teacher's job dissatisfaction, so general life events could get those value levels as a strategy to compensate professional frustrations (De Frank & Stroup, 1989).

## REFERENCES

- De Frank, R.S. & Stroup, C.A. (1989). Teacher stress and health: Examination of a model. *Journal of Psychosomatic Research*, 33(1), 99-109.
- Holmes, T.H. & Rahe, R.H. (1967). The social readjustment rating scale. *Journal of Psychosomatic Research*, 11, 213-218.
- Kamizaki, R., Faleiros-Sousa, F.A. & Da Silva, J.A. (2000). Estabilidade Intercultural da Escala Psicofísica de Reajustamento Social. *Arquivos Brasileiros de Psicologia*, 52(1), 61-69.
- Masuda, M. & Holmes, T. H. (1967). Magnitude estimations of social readjustments. *Journal of Psychosomatic Research*, 11, 219-225.
- Miller, M.A. & Rahe, R.H. (1997). Life changes Scaling for the 1990s. *Journal of Psychosomatic Research*, 43(3), 279-292.