# TEACHER BURNOUT AND PROFESSIONAL STRESS

### VASILE RADU PREDA\*

**ABSTRACT.** Professional exhaustion ("burnout") is the result of chronic stressful conditions and of the feeling that at the work-place there is a discrepancy between personal abilities and the real working conditions. The objective of this study is a research of the level of perceived stress in case of teachers and that of dimensions professional exhaustion a) the connection between the level of perceived stress and that of emotional exhaustion; b) the connection between the level of perceived stress and that of the depersonalization at the level of interpersonal relations.

**Keywords:** perceived stress, teacher burnout, emotional exhaustion, depersonalization of interpersonal relations, educational management.

KURZFASSUNG. Das *Burn-out-Syndrom* ist das Resultat unterschiedlicher Bedingungen, die fortwährenden Stress erzeugen und das Gefühl produzieren, dass am Arbeitsplatz Diskrepanzen zwischen den persönlichen Fähigkeiten und die wahren Arbeitsbedingungen existieren. Ziel der vorliegenden Studie ist die Vorstellung einer Forschung bei Lehrern über ihr Stressniveau, verbunden mit dem a) Niveau der beruflichen Erschöpfung und b) der Beziehung des gefühlten Stresses und der Unpersonifizierung der zwischenmenschlichen Beziehungen.

Schlüsselwörter: gefühlten Stress, berufliche Erschöpfung, emotionelle Erschöpfung, Unpersonifizierung der zwischenmenschlichen Beziehungen, Erziehungsmanagement.

#### 1. Burnout: definitions and features

In 1969, Loretta Bradley was the first to state that *burnout* is a specific process related to stress, one linked to the demands and to the conditions offered at the work-place. The term *burnout* was then used in 1974 by H. J. Freudenberger, and by Christina Maslach in 1976, in their studies on professional exhaustion. There are many definitions of the term *burnout*, some of these mentioned at the following online source:

http://fr.wikipedia.org/wiki/Syndrome d%C3%Aepuisement professionnel

<sup>\*</sup> Speech Therapist, PhD., CRDEI, Cluj-Napoca

Here are some definitions of the term *burnout*:

- *Burnout* is a state of emotional exhaustion, of depersonalization and of diminished performance, likely to occur in the case of persons working in jobs like Public Relations (Christina Maslach, Susan Jackson, 1986).
- Maslach (2001) sees *burnout* as a syndrome of physical and emotional exhaustion implying the development of negative self-esteem and of a negative professional attitude, leading to loss of involvement and to a lack of positive feelings. *Burnout* is a syndrome of emotional exhaustion, of depersonalization and of diminished involvement in professional development (Susan Jackson, Michael Leiter, Christina Maslach).

Professional exhaustion is, therefore, the result of chronic stressful conditions and of the feeling that at the work-place there is a discrepancy between personal abilities and the real working conditions.

Maslach and co.(1981, 1986, 1999), Aluja, Blanch, Garcia (2005), identified three dimensions of professional exhaustion.

- a) **Emotional exhaustion** (excessive emotional demand, the feeling that one is at the verge of emotional collapse);
- b) **Depersonalization** or the **dehumanization of interpersonal relations** (seen as a decrease in empathy, insensitive relations, aloofness-detachment, indifference and/or cynicism towards those who normally are the beneficiaries of one's services);
- c) Diminishing motivation and professional involvement, a decrease in performance (accompanied by a feeling of incompetence, of inability to accomplish anything, of a reduced work capacity).

There are several types of **professional exhaustion symptoms**:

- a) Psychosomatic and somatic symptoms;
- *b)* Psychological symptoms;
- c) Psycho-social and occupational symptoms.

The onset of professional exhaustion is progressive, and its evolution takes a significant amount of time. Burnout has negative consequences that incur *psychological costs* in the individual's case, *financial costs* for the *organization* and *social costs* for the family and for the community.

# 2. Models regarding the sources of burnout and professional stress

Along the years many different models regarding the sources of burnout and professional stress have been devised.

**The "Demand-Control" Model** elaborated by Karasek (1979, 1998) is, according to Fessier and Moulin (2005, p. 34), one of the most renowned models that explain professional stress. This model focuses for two dimensions: a) "psychological job demands", namely the organizational requirements and limitations imposed on the individual; b) the freedom of making decisions granted to the employee, namely the opportunities to decide and to control what goes on at the work-place.

Fessier and Moulin, in "Santé et bien-être des enseignants en Suisse romande" (2005), show that Karasek's model was reused, completed and developed by many researchers based on the particularities of their respective fields of activity and the results of their own research. Here are some **versions of Karasek's model:** 

- a) Payne, Fletcher (1983) and Doudin, Curchod-Ruedi, Peter (2009) added to Karasek's model a third dimension: the *social support*, which refers to three aspects: a) *hierarchical support* (directorial), having two components: the practical support and the emotional support; b) *peer support*; c) *extra-professional support* (within the family, among friends, etc.).
- **b)** Friedman's model (2000), in which the onset and the evolution of burnout are examination in two different ways: a) on the cognitive level, it is seen as resulting from the feeling of personal and professional failure; b) on the emotional level, when the teacher feels overwhelmed by work overload, a state that may be followed by emotional exhaustion. Stressful events have a negative impact on the person either on one of these levels or on both.
- c) Lourel and co. (2005) put forward a multi-factorial model according to which job demands and freedom of decision are seen as interrelated exogenous variables that have a direct impact on the three dimensions of burnout, whose residual variables are correlated.
- d) Some researchers who worked on establishing models pertaining to the causes of burnout in the case of teachers and proposed causal model of vocational teacher stress (Adams, 2001), also take into consideration the idealistic expectations of the teachers, especially of the ones new to the field, expectations often not met by the reality of school-life. Other models include the inappropriate organizational structure and the insufficient social support (Janos, Georges, Parent, 1998).

# 3. Research regarding teacher burnout

Numerous studies have shown that a huge number of teachers have suffered from stress or professional exhaustion (Dionne-Proulx, J., 1995; Adams, 2001, Cox and co., 2005; Corten and co., 2004; 2007)

Perceived stress plays the role of a mediator in the relation between social support, on the one hand, and perceived performance on the other hand. Perceived control is based on the assessment of the threat and on the personal resources. The environmental and the situational factors of the perceived stress and of the perceived control are: the nature of the situation, of the event, its duration, its ambiguity, its controllability and the available support (Bruchon-Schweitzer, 2001, p. 73-74). The benefic effects of the perceived control are a result of both the assessment of the aversive situation that the individual performs, and of the individual's assurance that s/he is capable of an efficient behavioral response.

The European Trade Union for Education (ETUE) devised a project entitled "The Optimisation of the Expertise on Teachers' Professional Stress and of the

Assistance Offered to Organisations which Are ETUE Members." The project was devised between November 2006 and December 2007 and was based on the answers giwen to the Professional Stress Questionnaire by teachers form 27 European countries, Romania being one of them. Data analysis pointed to similarities but also to some differences in the way that teachers from different countries classify stressors and stress indicators. In Bulgaria, *Romania* and Hungary there featured a relatively high number of stressors and stress indicators.

The *figure 1* below outlines our comprehensive model of the influence that stress factors have on professional exhaustion in the case of teachers.

# 3.1. Research methodology

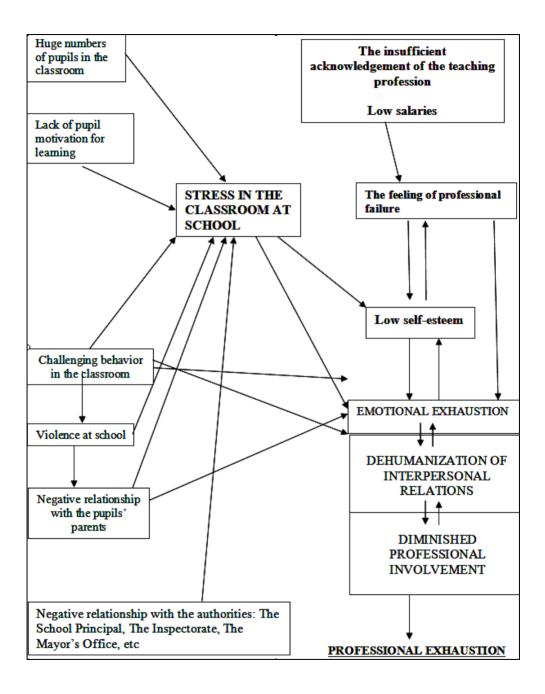
The objective of this study: Pointing the level of perceived stress in case of teachers and that of dimensions professional exhaustion (burnout).

# **Specific hypotheses:**

- 1) Perceived stress is higher in the case of female teachers than in the case of male teachers. In the case of female teachers the frequency of **perceived stress** is higher than in the case of their male counterparts.
- 2) For both female and male teachers there is a strong connection between the level of perceived stress and that of emotional exhaustion. Female teachers are especially predisposed to emotional exhaustion when the level of perceived stress is above-medium.
- 3) For both female and male teachers there is a strong connection between the level of perceived stress and that of the depersonalization at the level of interpersonal relations.

# Participants of study: Table I The socio-demographical characteristics of the sample of teachers (N=236)

	Women Men		
Total number of participants (N=236)	155	81	
Age-groups (N):	<u>N:</u>	<u>N:</u>	
23 - 30 years of age	<u>N:</u> 38	15	
31 – 40 years of age	45	26	
41 - 50 years of age	42	25	
51 – 57/60 years of age	30	15	
Age: average / standard deviation	38.6 12.4)	42.5 (9.5)	
Teaching experience: mean / standard deviation	19.5 (11.4)	23.6 (10.8)	
School type:	<u>N:</u>	<u>N:</u>	
Primary-school	$\overline{40}$	21	
Secondary-school	50	30	
High-school	65	30	



**Fig. 1.** The model showing the influence of stressors on teachers' professional exhaustion (V. R. Preda)

The research was carried out during the 2008-2009 and 2009-2010 school years. The investigation was performed at the respective schools, but sometimes the teachers filled in the forms home and at other times they were consulted during different training courses.

#### 3. 2. Research instruments:

- 1) The Perceived Stress Scale, elaborated by Cohen and Williamson in 1988 translated and adapted is a self-assessment type of questionnaire that measures the feeling of daily stress. The scale was designed starting from the transactional approach to stress. The internal coherence of the scores obtained by Lourel, Gana and Wawrizyniak (2005, p. 231) with *the Perceived Stress Scale* has proven to be satisfactory (alfa coefficient = 0.82).
- **2)** The stress level self-assessment questionnaire (translated and adapted from P. Légeron). This questionnaire contains 12 statements with reference to the frequency and the intensity of the perceived stress.
- **3)** The Maslach Burnout Inventory (MBI) translated and adapted is a 22-item questionnaire, in which the items are assigned to three groups, in order to assess three dimensions on a Lickert-like scale of intensity/frequency:
- emotional exhaustion, defined as the feeling of exhaustion on the emotional level that results from one's activity at the workplace, is assessed using 9 items (numbered 1, 2, 3, 6, 8, 13, 14, 16, 20);
- depersonalization (dehumanization of interpersonal relations), taking the form of indifference, insensitivity towards the people that one comes in contact with at the workplace, is assessed using 5 items (numbered 5, 10, 11, 15, 22);
- personal professional involvement/development task (fulfillment), consisting in the feeling that one is competent and benefits from rewarding achievements in one's professional life (self-accomplishment), is assessed using 8 items (numbered: 4, 7, 9, 12, 17, 18, 19, 21).

# 3. 3. Data analysis and the interpretation of the results regarding perceived stress and its effects in the case of teachers

The hypothesis that a higher number of female teachers display greater levels of perceived stress than male teachers do was confirmed. We have also confirmed the hypothesis that in the case of female teachers the frequency of perceived medium-level and above medium-level stress is higher than in the case of their male counterparts.

In order to verify the hypothesis that female teachers display a level of perceived stress which is higher than that of their male counterparts, we have processed the data obtained from 155 female teachers and from 81 male teachers working in an urban environment who were asked to fill in **the stress level self-assessment questionnaire** (translated and adapted from P. Légeron). We must add that these were the only samples of teachers willing to fill in this questionnaire and proved us with the completed forms.

The data regarding the level of perceived stress that we obtained after the administration of **the stress level self-assessment questionnaire** to the group of participants are presented in the table below and in the diagrams.

The statistic processing was made by using the SPSS 13 program.

Table II

The classification of teachers (%) function of the level of perceived stress

Stress level	Stress below medium-level (Global score of 6 to 12)	Medium-level stress (Global score of 13 to 20)	Stress above medium- level (Global score higher than 20)	
Women (N= 155)	31.81% (N=49)	9.09% (N=14)	59.10% (N=92)	
Men (N= 81)	44.45 % (N=36)	22.22% (N=18)	33.33% (N=27)	

The data presented above show that we have verified the hypothesis that female teachers display a level of perceived stress which is higher than that of their male counterparts. We have also confirmed the hypothesis that in the case of female teachers the frequency of perceived medium-level and above medium-level stress is higher than in the case of their male counterparts.

# 3.4. The degree of burnout occurrence manifestation of female and male teachers

Taking into account the significance of the scores for the three burnout dimensions, here is a comparison between the level of manifestation of the professional exhaustion symptoms in female and male teachers investigated by using The Maslach Burnout Inventory.

Table III
The comparison of female and male teachers function of the different degrees of manifestation of the burnout dimensions (male teachers: N=81; female teachers: N=155)

Burnout dimensions	Emotional Exhaustion	Depersonalization of interpersonal relations	The feeling of professional involvement/ fulfillment
Burnout degree	High Medium Low	High Medium Low	High Medium Low
Female Teachers (N) (%)	53 65 37 34.19 41.93 23.88	61 49 45 39.35 31.61 29.04	66 47 42 43.22 30.32 26.46
Male Teachers (N) (%)	15 45 21 18.51 56.25 25.24	19 25 37 23.29 30.92 45.75	35 24 22 43.20 29.62 27.18

The table III above shows that both female and male teachers display medium scores for the dimensions of *emotional exhaustion* and the *depersonalization of interpersonal relations*. However, male teachers exhibit *a lower degree of professional involvement/fulfillment*, which means that they are less motivated than female teachers. Moreover, many female teachers whose score was above medium are more actively involved in the instructional/educational activities with their pupils, due to their increased empathy and motivation.

The female teachers are more predisposed to emotional exhaustion under increased professional stress than male teachers.

- When the Chi-Square ( $\chi 2$ ) test was administered, highly significant differences (p < 0.000) were noticed in whit regards the effect of perceived stress on emotional exhaustion, not in the case of all teachers who displayed below and above average perceived stress, regardless of gender. For female teachers with above average perceived stress levels, emotional exhaustion appears more frequently and reaches higher levels.

However, in both female and male teachers emotional exhaustion and personal relations dehumanization do not influence negatively to a great extent the feeling of professional involvement and fulfillment. Thus, only 27.18 % of the male teachers and 26.46 % of the female teachers declared that they have reduced feelings of **professional involvement and fulfillment**, such feelings rating high in the case of 43 % of the teachers interviewed. Consequently, despite emotional exhaustion, only about ½ of the teachers display diminished motivation and lower degrees of professional involvement.

Thus, the hypothesis that there is a strong connection between the frequency and the intensity of stress, on the one hand, and teachers' emotional exhaustion, on the other, has been confirmed.

The data obtained through our research, which are in agreement with that of other researchers (Adams, 2001, Genoud, Brodard and Reicherts (2009), shows that various stressful contexts and situations which constitute part and parcel of the teaching profession can cause negative emotions due to pupils' behavior, to the lack of social appreciation when it comes to their activities and efforts, to the low salaries, to the much too great amount of work due to an overloaded curriculum, due to time management problems, to the inappropriate environment in schools, and, last but not least, to the lack of organizational support. Besides these stressors, there are also others, such as confusing issues in what regards the roles and responsibilities of people supposed to take part in the school's social environment (different persons from the City Council, the Mayor's House, the Inspectorate, etc.); the paradoxical requirements of a society that casts violent criticism at the school, making unrealistic demands of this institution, as if the school could on its own regulate each and every instructional or/and educational issue of each student.

## 3.5. The correlations between the Dimensions of Professional Exhaustion

Regarding the correlations between the three dimensions of professional exhaustion (table IV), data analysis points to correlation coefficients (r) that have a smaller value than the one of those obtained by Maslach and Jackson (1986), by Dion and Tresier (1994) and by Genoud, Brodard and Reicherts (2009).

The analysis of the results shows that *emotional exhaustion* is an important factor in the process of **professional exhaustion**, a fact previously noticed by Maslach and Jackson (1986) and by Dion and Tressier (1994).

Burnout dimensions/Correlation	A	В	C	D
coefficients				
Emotional exhaustion - Depersonalization	0.45**	0.52**	0.34*	0.48*
of interpersonal relations				
Emotional exhaustion - Degree of	- 0.32*	-0.22	-0.27	- 0.33*
professional involvement/fulfillment				
Depersonalization of interpersonal	- 0.28	-0.26	-0.26	- 0.32*
relationships - Degree of professional				
involvement/fulfillment				

<sup>\*</sup>p < 0.05; \*\*p < 0.001; A - our study (N = 236); B - Maslach and Jackson's study (N = 1.067); C - Dion and Tessier's research (N = 228); D - Genoud and co. (N = 787).

In the case of teachers we witness a certain connection between the frequency and the intensity of perceived stress and the degree of depersonalization of personal relationships. Thus, upon the administration of the Pearson Chi-Square ( $\chi$ 2) test we noticed that the differences regarding the effect of perceived stress on female teachers with above-average levels as compared to those with average or below average levels of perceived stress are of little statistical significance (p = 0.02). However, in the case of the female teachers with above-average levels of perceived stress the depersonalization of interpersonal relationships occurs more often and with greater intensity.

Upon the administration of the Pearson Chi-Square ( $\chi 2$ ) test we noticed significant differences (p < 0.000) in what concerns the effect of perceived stress on the depersonalization of interpersonal relationships in male teachers with above average levels of perceived stress as compared to those with below average levels. In the case of male teachers with above average levels of perceived stress the depersonalization of interpersonal relationships occurs more often and with greater intensity.

- The hypothesis according to which in the case of teachers there is a strong link between the frequency and intensity of perceived stress and the degree of depersonalization of interpersonal relationships was only partially confirmed.

- In the case of teachers there is a certain connection between emotional exhaustion and the degree of depersonalization of interpersonal relationships, the hypothesis that this link is strong being only partially confirmed. Therefore, we can argue that the depersonalization of interpersonal relationships is the result of cumulative multi-factorial agents, as there are certain personality traits that shape the stressors, thus modifying their impact.

In the case of **all the male teachers** there is a highly significant very strong connection (p <0.000) between emotional exhaustion and the degree of depersonalization of interpersonal relationships. Our research shows the existence of a strong link between emotional exhaustion and the degree of depersonalization of interpersonal relationships (at significance between p < 0.02 and p <0.000) in the case of male teachers aged 23 to 50; this link is even stronger for the age-groups 23 – 30 and 31 – 40. On the other hand, the age-group analysis based on the criterion Chi-Square Tests ( $\chi$ 2) shows that in the case of female teachers there is no significant link between emotional exhaustion and depersonalization. Consequently, age itself has neither a strong, nor a direct influence on the degree of association between emotional exhaustion and the depersonalization of interpersonal relationships in the case of female teachers.

- There are statistically significant differences between the means obtained by the populations from which the two samples (male and female teachers) were extracted in what concerns the *depersonalization of interpersonal relationships*, the significance threshold being p=0.01. Due to stressful factors, female teachers exhibit a stronger depersonalization of interpersonal relationships than male teachers do.
- There is a certain link between the teachers' level of perceived stress, on the one hand, and their degree of professional involvement and their feeling of professional fulfillment on the other hand. Thus, even under conditions of above-medium perceived stress, most female teachers (58.5 %) display a medium or an above-medium level of professional involvement. However, 41.5 % of the female teachers displaying an above-medium level of professional stress display low levels of professional involvement, being de-motivated and unsatisfied by the results obtained.
- Of the **male teachers** with above-medium levels of professional stress, 25.7 % show decreased professional involvement, being quite de-motivated and unsatisfied with their results and with their professional status.
- As different from female teachers, under conditions of *below-medium stress*, fewer male teachers show high levels of professional involvement, (only 8.7% of the cases), most of them displaying low levels of professional involvement (54.3%) and some exhibiting mean levels of involvement (37.0%).

At first sight, the data presented above may seem surprising, but we have to take into account the fact that the degree of professional involvement in the teachers' case, be it low or high, is determined by many factors. Other researchers point out, as well, that there is no direct straight link between teachers' perceived stress and a lower level of professional involvement or their lack of motivation (Dionne-Proulx, 1995; Di Fabio, Majer și Taralla, 2006), and this is due to the many factors involved in personal

#### TEACHER BURNOUT AND PROFESSIONAL STRESS

professional involvement and development. The degree of teachers' professional involvement is connected to their feelings of self-efficacy.

Successful task accomplishment provides the most important source of self-competence expectations. Successful experiences increase expectations of task-solving, while repeated failures decrease expectations of professional success.

- Teachers with high-level stress and with an increased anxiety level, as well as with a diminished, predominantly external locus of control, must learn to master efficient coping strategies, by asking for psychological counseling or for psycho-pedagogical interventions, in order to prevent professional exhaustion. Moreover, in schools, it is essential to optimize classroom management, school management and the educational environment.

**Practical recommendations**: Teachers with high-level stress and with an increased anxiety level, as well as with a diminished, predominantly external locus of control, must learn to master efficient coping strategies, by asking for psychological counseling or for psycho-pedagogical interventions, in order to prevent professional exhaustion. Moreover, in schools, it is essential to optimize classroom management, school management and the educational environment.

Therefore, it is compulsory to ensure that the initial training and, especially, the continuous lifelong training of teachers, both offer more intensive psychopedagogical training regarding educational management, challenging behavior management and conflict solving management. At present, this can be accomplished mainly by offering such training during the MA program and by designing a specific curriculum for training courses.

### REFERENCES

- **Adams, E. (2001),** A proposed causal model of vocational teacher stress, *Journal of Vocational Education and Training*, 53, 2, 223-246.
- **Aluja, A., Blanch, A., Garcia, L.F. (2005),** Dimensionality of Maslach Burnout Inventory in school teachers: A study of several proposals, *European Journal of Psychology Assessment*, 21, 67-76.
- **Bruchon-Schweitzer, M. (2001).** Coping et stratégies d'ajustement face au stres, *Recherche en soins infirmiers*, 67, p. 68-82.
- Corten, Ph. (2004), Stress et stress pathologique, Psychopathologie du travail, Bruxelles, ULB.
- Cox, T., Tisserand, M., Taris, T. (2005), The conceptualization and measurement of burnout: Questions and directions, *Work & Stress*, 19, 3, 187-191.
- **Di Fabio, A., Majer, V., Taralla, B. (2006).** Corrélatifs de la Teacher Self-Efficacy: caractéistiques personnelles et attitude envers le travail. *Psychologie du travail et des organisations*, 12, p. 263-277.
- **Dionne-Proulx**, **J.** (1995), Le stress aux travail et ses consequénces potentielles à long terme: le cas des enseignants québécois, *Revue Canadienne de l'Éducation*, 20, 2. p. 146-155.

- **Dion, G., Tessier, R. (1994)**, Validation de la traduction de l'inventaire d'épuisement professionnel de Malsach et Jackson, *Revue Canadienne de Sciences Comportamantales*, 26, 210-227.
- **Doudin, P.-A., Curchod-Ruedi, D., Peter, V. (2009).** Le soutien social comme facteur de protection du burnout des enseignents. *Prismes / Revue Pédagogique HEP*, 10, 55 58.
- **Fessier, C-M., Moulin, F. (2005)**, Santé et bien-être des enseignants en Suisse romande: analyse de la situation et propositions de mesures de promotion de la santé, Laussanne, Département Formation continue de la Haute Ecole Vaudoise, Direction des Etudes Postgradues en Human Systems Enginerering, 136 p.
- Freudenberger, H.J. (1974), Staff burnout, *Journal of Social Issues*, vol. 30, nr.1, 159-165.
- **Friedman, I.A., Farber, B. (1992),** Professional self-concept as a predictor of teacher burn-out, *Journal of Educational Research*, 85, 1, 28-35.
- **Genoud, A.P., Brodard, F., Reicherts, M. (2009),** Facteurs de stress et burnout chez les enseignants de l'école primaire, *Revue européenne de psychologie appliquée*, 59, 37-45.
- **Janos, M., Georges, P., Parent, S. (1998),** L'environnement éducatif à l'école secondaire:un modèle théoretique pour guider l'evaluation du milieu, *Revue Canadienne de Psychoéducation*, 27, 2, 285-306.
- Janosz, M., Thebaud, M., Bouthillier, C., Brunet, L. (1998), *Perception du climat scolaire et epuisement professionnel chez les enseignants*, Montreal, Université de Montreal.
- **Karasek, R.A. (1979).** Job demands, job decision latitude and mental strain: implication for job redesign. *Administrative Scientific Quaterly*, 24, 285-308.
- **Karasek, R., Brisson, Ch. & colab. (1998),** The Job Questionnaire (JCQ). An Instrument for Internationally Comparativ Assessments of Psychological Job Characteristics, *Journal of Occupational Health Psychology, 3, 4, 322-355.*
- **Légeron, P., Cristofini, R. (2006),** Enquête sur le stress professionnel. Raport complet. Etude menée auprès de la population active du Luxembourg du 29.06.05 au 05.09.05, OGB-L et Ligue Luxembougeoise d'Hygiène Mentale, Paris, STIMULUS.
- **Lourel, M., Gana, K., Wawrzyniac, S. (2005).** L'interface "vie privée vie au travail": adaptation et validation française de l'echelle SWING (surwey work-home interaction Nijmegen). *Psychologie du travail et des organisations*, 11, p. 227-239.
- **Maslach, C., Jackson, E.S. (1981).** The measurement of experienced burnout, *Journal of Occupational Behaviour*, 2, 99-113.
- Maslach, C., Jackson, S.E., Leiter, M.P. (1986). *Maslach Burnout Inventory Manuel*, 3-e edition, Palo Alto, Consulting Psychologists Press.
- **Maslach, C., Leiter, M. P. (1999).** Burnout and engagement in the workplace, *Advance in Motivation and Achievement*, 11, 275-302.
- Maslach, C., Schaufeli, W.B. Leiter, M.P. (2001). Job burnout, Annual Review of Psychology, 52, 397-422.
- **Payne, R.L., Fletcher, B.C.(1983),** Job demands, supports and constraints as predictors of psychological strain among school teachers, *Journal Vocational Behavior*, 22, 136-147.
- xxx Carrefour santé social. Enquête Santé et conditions de travail des enseignants en début de carrière, Paris, MGEN, UNSA éducation, 2009.