



Burnout, self-efficacy and job satisfaction among primary school teachers in Morocco



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ABSTRACT

This study aims at testing the structures of three scales designed for measurement of self-efficacy, burnout and job satisfaction among Moroccan primary school teachers. The study also seeks to explore the possible correlations between these three latent variables. 404 teachers from a small city (El Kalaa Des Sraghna) participated in this study. Data were analyzed by a Structural Equation Modeling (SEM) using the AMOS 25 software. Findings of the study confirmed the two-dimensionality of the Burnout measurement scale, depersonalization and emotional exhaustion, the multidimensionality of the scale of teacher self-efficacy (six dimensions) and the unidimensionality of the scale of job satisfaction. A negative correlation has been revealed between the teacher self-efficacy and job satisfaction on the one hand and the two dimensions of burnout, on the other hand.

1. Introduction

A significant body of research has recently considered the failure of the current educational system in Morocco (Conseil Supérieur de l'Éducation, 2019; Saoudi, Chroqui, & Okar, 2019). Research has mainly been directed towards examining the level of knowledge, student achievement, and competences prescribed by the curriculum (Zerrouqi, 2015). Despite this apparent diversity in studies targeting the different educational reform programs in Morocco, a major gap concerning the role of the teacher as an active agent in this system has not been fully addressed.

The current study argues that researching the various aspects related to the teacher remains primordial and should therefore be taken into account in the politics of educational reforms in Morocco. While zooming the cognitive aspect of teacher development has constituted a major area of concern over the last years (Bardach & Klassen, 2020; Grönqvist & Vlachos, 2016), the emotional aspects related to the teacher has equally gained a substantial interest recently. And it's this dimension that the present study sets out to investigate.

More specifically yet, the present study aims at studding three emotional dimensions among Moroccan primary teachers; namely, burnout, self-efficacy and job satisfaction. While these characteristics have been the subject of numerous studies (Filiz & Türkdo, 2020; Lee *et al.*, 2014; Skaalvik & Skaalvik, 2010), the current state of the art in Morocco reveals that these dimensions have not received the same international interest. Our chief aim, therefore, is to use international

scales to measure these three constructs in the Moroccan context, and, at the same time, to statistically explore significant correlations, if any, between them.

2. Conceptual and theoretical framework

2.1. Teacher burnout

Burnout refers to “a psychological syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who work with other people in some capacity” (Maslach, Jackson, Leiter, Schaufeli, & Schwab, 1986).

It is a determining aspect of the teacher's psychological health which has a negative impact on their well-being and professional performance (Capone, Joshanloo, & Park, 2019).

Similarly several studies have revealed that teachers tend to have the lightest levels of emotional exhaustion compared to other professions (Stoeber, Joachim, & Rennert, 2008), this can undermine the quality of their performance and impact their interactions with students, resulting in negative outcomes of students' achievement (Gerber Whitebook, & Weinstein, 2007).

Teacher burnout is related to efficacy beliefs (Skaalvik & Skaalvik, 2007), perceived fairness at work (Kausto, Elo, Lipponen, & Elovainio, 2005), and school climate (Grayson & Alvarez, 2008). Other research has shown that this syndrome -Burnout - can play the role of a mediator

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between work variables and depression, and, hence, can be considered as a key factor in the psychological well-being of teachers (Capone, Josh-anloo, & Park, 2019). Skaalvik and Skaalvik (2010), employing a model with structural equations, have proved that teacher self-efficacy was negatively related to both dimensions of teacher burnout namely emotional exhaustion and depersonalization (-.29 and -.41) (p.1063).

By the same token (Maslach & Jackson, 1981), build a conceptual model based on from some empirical research, which allowed them to constitute an instrument for measuring burnout. This measurement, we use in the current study, has been named Maslach Burnout inventory (MBI). The MBI considered burnout to be a psychological syndrome of three dimensions: emotional exhaustion, depersonalization and loss of personal effectiveness (p.99-113).

Although several tools for measuring burnout have been used, few of them were the subject of scientific validation. The model developed at the beginning of 1980 by Maslach MBI, has been, so far, the most widely used, covering about 90% of the literature in this domain (Algava et al., 2011).

The syndrome described by the MBI model includes three dimensions: the first and the most central one is emotional exhaustion; the second dimension is depersonalization (or cynicism); the third dimension is the loss of personal accomplishment. Correlations between the first two dimensions are rather obvious and strong; links with the third are more complex, however. Some authors reappraise its inclusion besides in the syndrome of the burnout, considering that it would be rather about a feature of personality or of a more independent factor. (Demerouti, Nachreiner, Bakker, & Schaufeli, 2001). In a rather consensual way, the first two dimensions seem to be the most preponderant. The present study will content itself with these first two dimensions of MBI.

2.2. Teacher self-efficacy

The feeling of personal effectiveness, according to Bandura theory, is the personal "judgment" to organize and use different inherent capacities to the realization of a task (Etudiants, Collegial, Bouffard-bouchard, & Pinard, 1988).

The introduction of this terms is owed in Bandura (1977) who founded the Social Cognitive Theory (Bandura, 1977, 1998, 2006). For teachers, the term "self-efficacy" refers to their beliefs in their ability to influence their students' achievement. Several studies have confirmed that student performance is closely linked to the strength of their teacher's felling of self-efficacy (Gaudreau, Royer, Beaumont, & Frenette, 2012; Ross, Hogaboam-Gray, & Hannay, 2001).

Teacher self-efficacy also has a factor that has a considerable effect on student achievement (Hattie, 2003). has synthesized several studies related to teachers' self-efficacy, concluding that this syndrome has an effect on student learning. Other researchers (e.g. Taylor, 2010) have recommended improving teachers' self-efficacy to improve student achievement.

Teachers' self-efficacy is correlated with several variables: school support (Skaalvik & Skaalvik, 2010), their goals and inspirations (Muijs & Reynolds, 2015), attitudes towards change (Fuchs, Fuchs, & Bishop, 1992), teaching skills and the use of teaching strategies (Allinder, 1994; Woolfolk, Rosoff, & Hoy, 1990), and the intentions to continue in the teaching profession (Glickman & Tamashiro, 1982). The inadequacy of this feeling among teachers may be due to stress, burnout and job dissatisfaction (Bandura, 1998; Betoret, 2009).

Measuring teachers' self-efficacy is difficult, a state consolidated by several studies (e.g. Hebert & Lee, 2016). It has been conceptualized and measured differently by several researchers (e.g. Skaalvik & Skaalvik, 2007). The Norwegian Teacher Self-Efficacy Scale (NTSES) is one of the instruments that has been used in studies in Norwegian schools. The scale is characterized by its multidimensional composition because it aims to measure teachers' perception of their ability to give instructions effectively, adapt their forms of education to the individual needs of the

students, motivate the students, to support the discipline in their classes, to collaborate with the working colleagues and the parents of students; and to face up changes and challenges.

It is a ladder that was conceived in accordance with recommendations put forth by sociocognitive theory of Bandura (Skaalvik & Skaalvik, 2007). This explain, in part, why we chose to test its structure on a sample of Moroccan primary teachers.

2.3. Teacher job satisfaction

There is no general agreement on the definition of teacher Job Satisfaction, however, Weiss (2002) defines the term broadly as "positive or negative evaluative judgments people make about their job" (p:173-194). Most of the research that has been carried out on job satisfaction has sought to identify its intrinsic and extrinsic sources (Evans, 1997; Robert, 1953), its relationship with other variables including gender (Aydin, Uysal, & Sarier, 2012), financial conditions and the level of autonomy (Pe & Anto, 2005, pp. 1934-1954), job beliefs (Judge & Ilies, 2004), colleague relations and participative work conditions (Rhodes, Hollinshead, & Nevill, 2014) ...

Job satisfaction is therefore a construct that has interdependencies and correlations with several variables, which is a problem for any attempt at measurement. In this context, certain scales have been used over time to measure it:

- Inventory Satisfaction Test (IST), which takes into account the intrinsic and extrinsic factors related to work (Larouche, Levesque, & Delorme, 2020).
- The Job Descriptive Index (JDI), which measures five aspects of satisfaction: wage, work, promotion opportunities, supervision and colleagues (Ironson, Smith, Gibson, & Paul, 1989).
- Job in General Scale (JGS), a group of items concerning satisfaction only in relation to job in general. It is a very "effective" predictor and it is possible to be used it to perform comparisons between different jobs and also between different firms, however, it does not give information on specific aspects of the job satisfaction (Ironson et al., 1989).

We used the last scale to measure job satisfaction among Moroccan primary teachers in our study.

3. Methodology

The aim of this article was, in part, to test the factor structure of three measurement scales of three variables: burnout, personal self-efficacy and job satisfaction among Moroccan primary school teachers. And on the other hand, it is based on the correlative conception in order to explore the potential correlations between the three psychological dimensions that we aim to study.

3.1. Participants

A total of 404 teachers from Moroccan schools participated in this study, 229 from rural areas and 175 from urban areas; 318 from the public sector compared to 86 from the private one. 211 men and 193 women participated in the study; they aged between 25 and 60. Among the participants, 79.2% were married, 13.9% single, 3.7% divorced while 3.2% were widows. All participants teach in primary schools in Morocco with classes of 24 students on average.

3.2. Instruments

3.2.1. Burnout

Burnout was measured by the modified form of the MBI scale, in which only central elements of emotional burnout and depersonalization

were used (Schaufeli, Salanova, González-romá, & Bakker, 2002). The participants evaluated 14 items related to, firstly, emotional exhaustion such as: *I feel emotionally drained by my work*, and, secondly, to depersonalization such as: *"I have become more insensitive to people since I have this job"*. The measurement scale is of Likert type (from 1 to 5) which varies from "completely false" to "completely true". The internal reliability of the scale is very satisfactory (Cronbach's alpha for the scale was 0.816).

3.2.2. *The feeling of personal self-efficacy*

Teacher self-efficacy was measured by the NTSES scale, which is a multidimensional scale containing 6 dimensions with 4 items for each dimension (Skaalvik & Skaalvik, 2007). The dimensions were: instruction, adapting education to individual students' needs, motivating students, keeping discipline, cooperating with colleagues and parents, and coping with changes and challenges. This scale was designed according to the principles of Bandura theory (Avanzi et al., 2013). The items on the scale were evaluated using a Likert scale (from 1 to 5) from "completely uncertain" to "completely certain". Among the examples of the evaluated items: *"How certain are you that you can provide realistic challenge for all students even in mixed ability classes?"* for the dimension of Adapt their forms of education to the individual needs of the students and *"How certain are you that you can wake the desire to learn even among the lowest achieving students?"* for the dimension of Motivate the students. The internal reliability of the scale is very satisfactory (Cronbach's alpha for the scale was 0.962).

3.2.3. *Job satisfaction*

As mentioned earlier, job satisfaction is a construction that has relationships with many variables. Therefore, we measured it through three general elements using Job in General Scale (JGS), a scale that has been tested in several studies (Ironson et al., 1989; Skaalvik & Skaalvik, 2010).

This syndrome has therefore been measured through three general elements:

- "All things considered, how much do you enjoy working as a teacher?" Responses were given on a 5-point scale ranging from "Not at all" to "Very much".
- "If you could choose occupation today, would you choose to be a teacher?" Responses were given on a 5-point scale ranging from "No, definitely not" to "Yes, without a doubt".
- "Have you ever thought about leaving the teaching profession?" Responses were given on a 5-point scale ranging from "All the time" to "Never".

The internal reliability of the scale is also satisfactory (Cronbach's alpha for the scale was 0.775).

4. **Data analysis**

After a preliminary analysis of the data which allowed us to discern missing values in rows, non-hired responses and outliers, an exploratory analysis was carried out with the SPSS V.25 program. Subsequently, the data were analyzed through a Confirmatory Factor Analysis (CFA) and a modeling by structural equations (SEM) using the AMOS 25 program.

We first tested the structures of the three scales of the study, and thereafter, a theoretical model was established by the AMOS program (Fig. 1), which was tested through SEM. In order to assess the fit of the model, we used some indices, such as CFI, IFI, TLI and RMSEA, in addition to the Chi-square test statistics. For CFI, IFI and TLI indices, values greater than 0.90 are generally considered acceptable and values greater than 0.95 indicate a good fit to the data (Bollen, 1989; Byrne, 2013; Hu & Bentler, 1999). For a well-specified model, an RMSEA of at least 0.06 corresponds to a good fit (Hu & Bentler, 1999).

5. **Results**

5.1. *Teacher burnout scale*

We tested two theoretical models of the structure of "BMI". The first model is a one-dimensional model, while the second is two-dimensional since it defined two correlated primary factors, namely, emotional exhaustion and depersonalization.

After the evaluation, the two models corresponded well to the data as shown by the following indices:

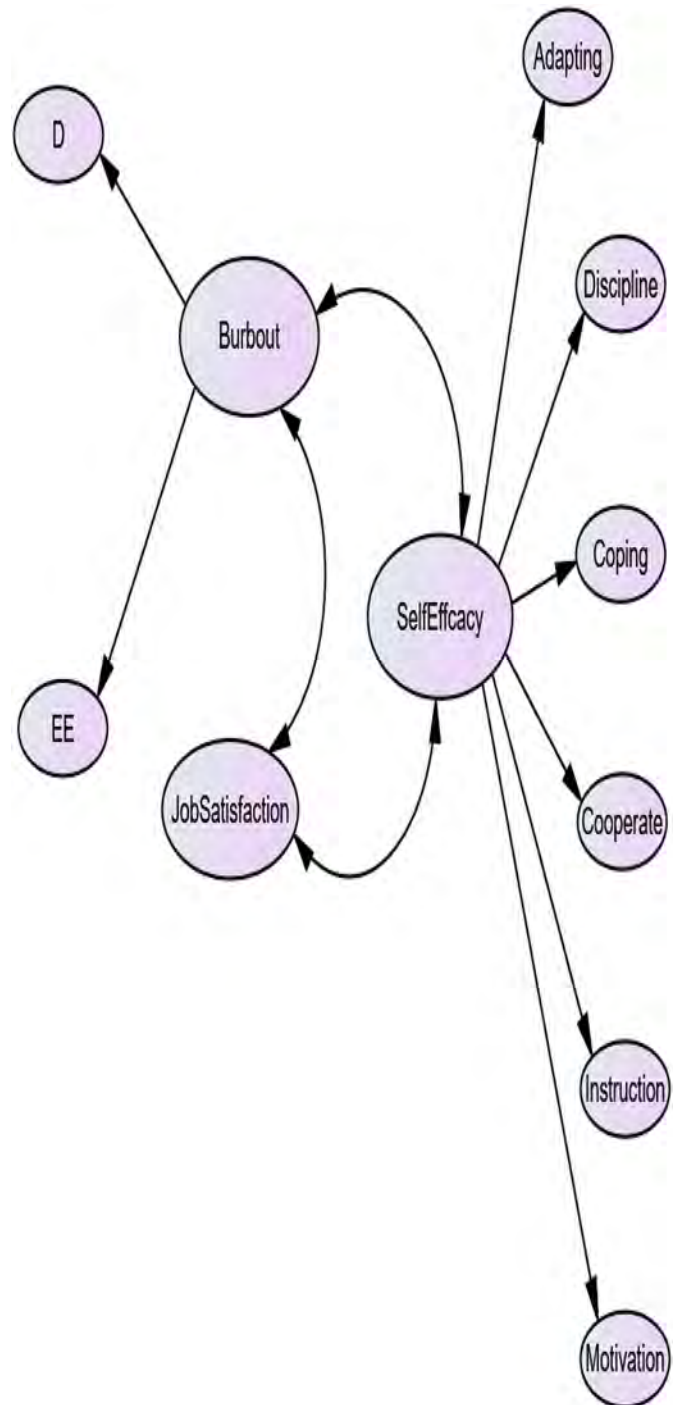


Fig. 1. The theoretical model of the relations between the variables of the study.

Model 1: ($\chi^2 = [78; N = 404] = 455.648; p < .005; RMSEA = .109; CFI = .844; TLI = .790; IFI = .846$)

Model 2: ($\chi^2 = [76; N = 404] = 374.598; p < .005; RMSEA = .099; CFI = .877; TLI = .830; IFI = .878$)

However, the 2nd model seems more adjusted to the data. The two dimensions of the scale are closely linked (0.84) (Fig. 2).

5.2. The Norwegian Teacher Self-Efficacy Scale

We tested the factor structure of 24 items on the NTSES through exploratory factor analysis with Promax rotation eigenvalues greater than 1. This exploratory factor analysis allowed us to extract six factors that explain 60% of the overall variance. The expected factor loads were greater than 0.6 for thirteen of the twenty-four elements and greater than 0.5 for six items. The other remaining factor loads were less than 0.5.

Subsequently, two models of the structure of the scale were analyzed by a Confirmatory Factor Analysis (CFA). Model 1 defines the scale as a one-dimensional scale while model 2 considers it as a multi-dimensional scale composed of six dimensions as defined by the exploratory analysis.

After the evaluation, the two models corresponded well to the data as shown by the following indices:

Model 1: ($\chi^2 = [253; N = 404] = 966.241; p < .005; RMSEA = .084; CFI = .897; TLI = .887$.)

Model 2: ($\chi^2 = [246; N = 404] = 878.598; p < .005; RMSEA = .080; CFI = .908; TLI = .897$)

However, the 2nd model (Fig. 3) seems more adjusted to the data.

5.3. Job satisfaction scale

Similarly, we tested two models of the measurement scale structure (JGS): the 1st model contains 3 items according to the original scale while in the model we eliminated an item whose correlation was negative with the others (-.47). The second did not correspond to the data (no results at the level of the adjustment indices); we, therefore, accepted the structure of the 1st model (Fig. 4) with the following indices:

Model1: ($\chi^2 = [0; N = 404] = 0; RMSEA = .481; CFI = 1.00; TFI = 1.00$.)

5.4. The relationship between the three study variables

One of the objectives of this study was to explore possible correlations between the three study variables, this explains why we tested theoretical model by means of Confirmatory Factor Analysis (CFA). The model (Fig. 5) had acceptable fit to the data:

($\chi^2 = [768; N = 404] = 1955.88; p < .005; RMSEA = .062; NFI = .819; CFI = .881; TLI = .866; \chi^2/df = 2.547$)

Whereas there is a positive correlation between teacher self-efficacy and teacher job satisfaction (0.29) (Fig. 5.), teacher burnout correlated negatively with teacher self-efficacy (-.50) and teacher job satisfaction (-.40).

6. Discussion and implications

This study, as mentioned above, aims at testing the structures of three scales (MBI, NTSES and JGS) of measurement applied to three variables: teacher burnout, teacher self-efficacy and teacher among a group of Moroccan primary school teachers. Linked to this, the study also aims at discovering the potential links among the investigated variables.

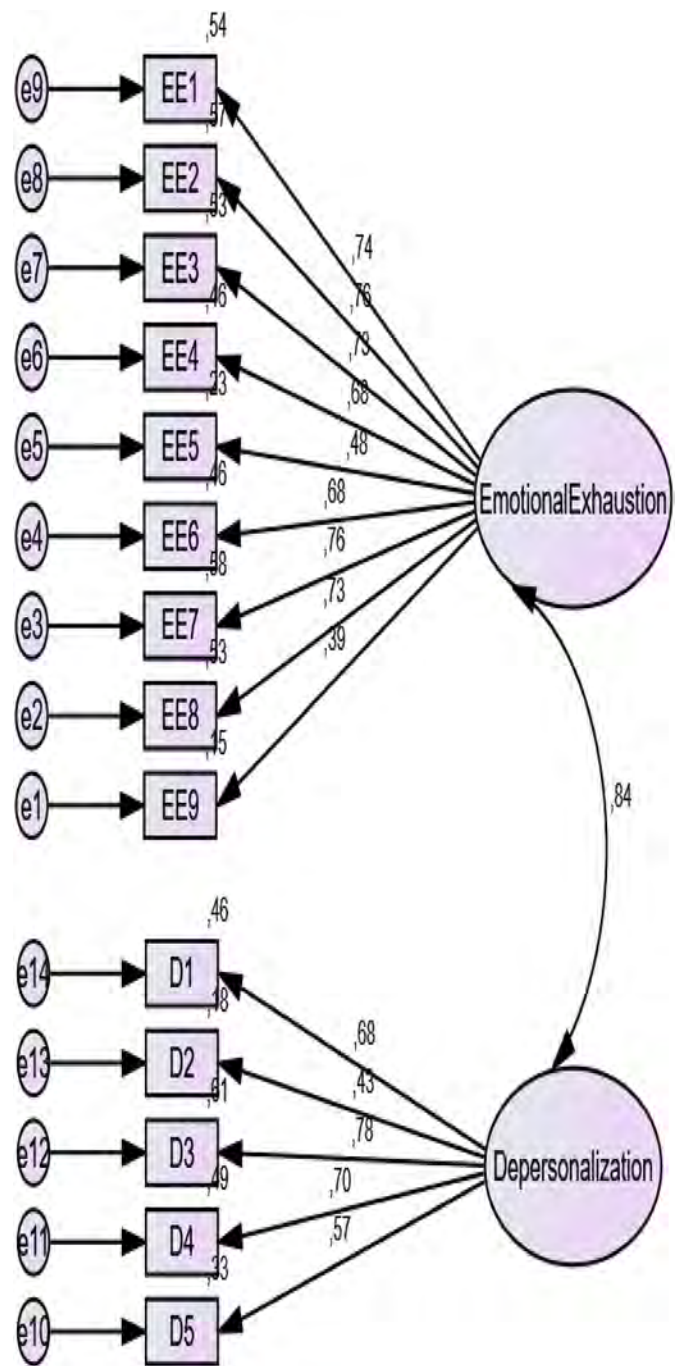


Fig. 2. Model of teacher burnout Scale.

6.1. The structure of NTSES

Data from the study sample confirmed that the scale has very good internal reliability: the Cronbach 's alpha of the NTSES was around (0.962) for all dimensions.

The study also confirmed the multidimensional structure of the NTSES scale, a structure composed of six factors in accordance with the results of several studies which have validated the same structure (Skaalvik & Skaalvik, 2007, 2010). This result stands in sharp contrasts with the studies which have used the one-dimensional structure of the scale (Caprara, Barbaranelli, Borgogni, & Steca, 2003; Chan, 2007; Schwarzer, Mueller, & Greenglass, 1999). Indeed, the six factors of the scale were strongly related to the teacher self-efficacy variable (Fig. 5.), which also proves that these factors constitute a reliable measurement

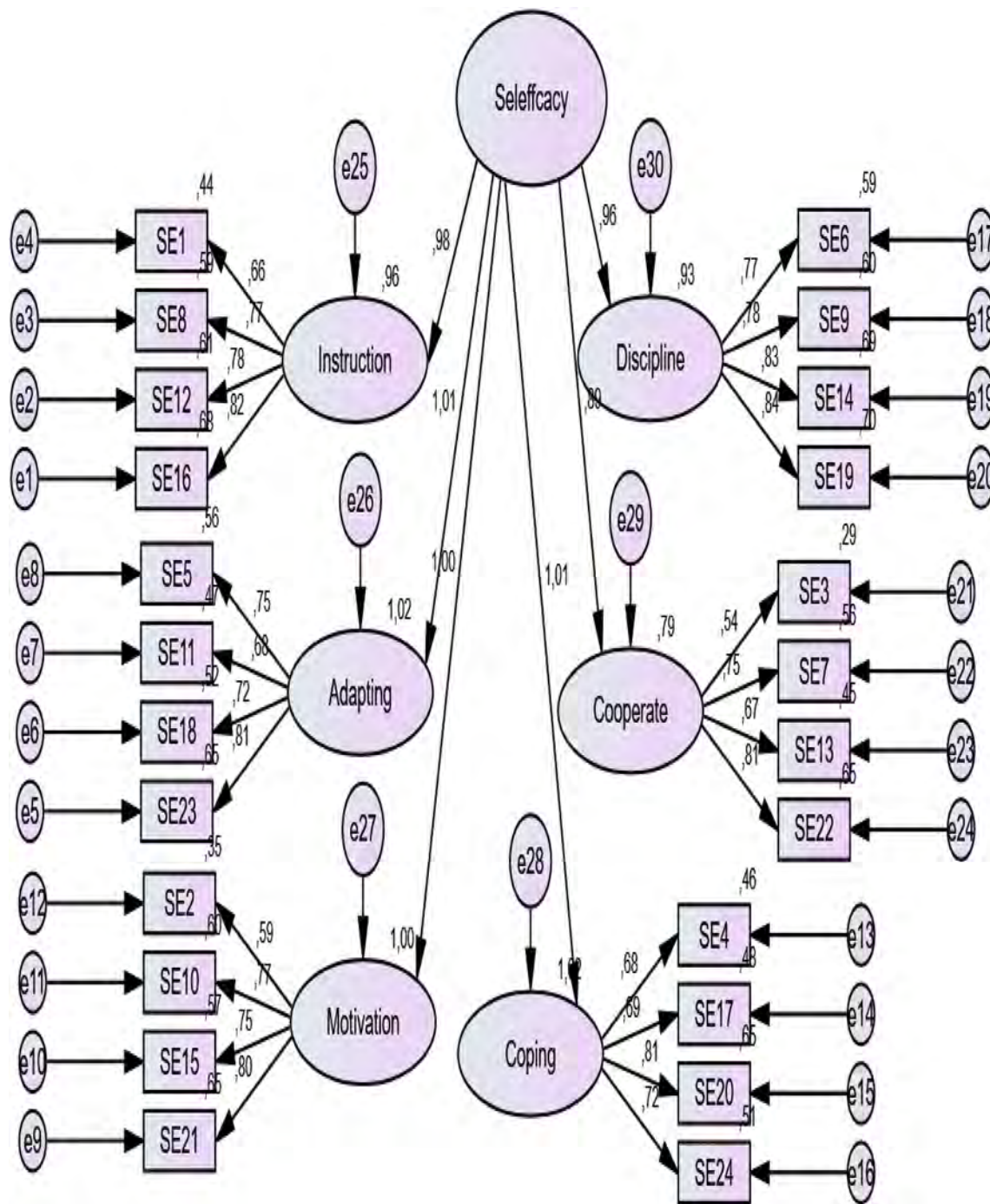


Fig. 3. Model of teacher self-efficacy scale.

scale for the latent teacher self-efficacy variable. The validation of the multidimensional structure of the NSEFS scale makes it possible to highlight the role of each factor of the factors which compose it, and their important contributions to the development of the feeling of self-efficacy among teachers:

- Cooperating factor contains four items, which strongly predict the scale (with correlation values varying from 0.64 to 0.81). This factors highlights the role of cooperation with its different facets (cooperation with parents, other teachers as well as with the school administrative body). Therefore, it is a determining factor to the development of the feeling of self-efficacy among teachers. This explains why, for example, a teacher who collaborates with parents, colleagues and the

school headmaster feel more effective than the one who does not. Cooperation is therefore a very crucial aspect which must be taken into account both at the initial and in-service teacher training programs, particularly in terms of communication techniques with the families and parents of pupils, management of conflicts that may arise among teachers within the school environment, and also in terms of team and project work techniques so as to improve teachers' mastery of the advantages of cooperation which will undoubtedly develop their feeling self-efficacy.

- Adaptation factor, with 4 items strongly linked to the teachers' self-efficacy dimension (values between 0.72 and 0.88), was treated as an independent factor following the results of the confirmatory factor analysis. Particularly we speak of pedagogical and didactic adaptation

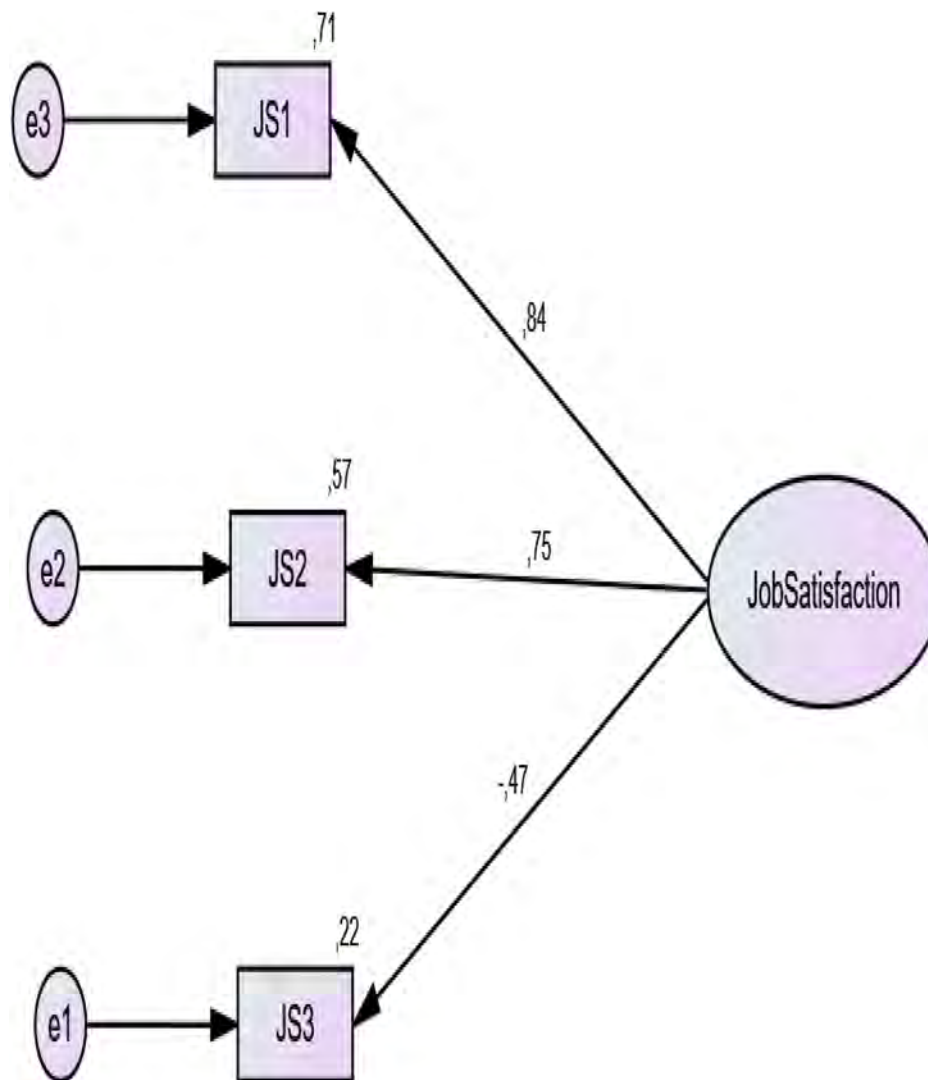


Fig. 4. Model of teacher satisfaction scale.

(educational content, tasks, instructions according to the needs and learning rhythms of the students), These aspects have been addressed by several studies (Assude, Jean-Michel, & Jeannette, 2012; Gombert, 2009). When a teacher acquires this quality of adaptation it contributes enormously to raising the level of their perception of self-efficacy. This is the reason why it is recommended that teachers develop their adaptation skills: adaptation of lesson planning adaptation of the teaching scenarios prescribed in guides and manuals, adaptation of lesson management by differentiating instructions and courses followed, and adaptation of the assessments according to the students' pace, level and differences.

- Instruction factor, with 4 items strongly linked to the teachers' self-efficacy dimension (values between 0.66 and 0.82), measured the teachers' ability to explain the concepts and content, orient students and respond to all their questions in order to get them all to develop their skills. This is a factor which highlights the professional competence of teachers in their mastery of the concepts and knowledge they teach, as well as the methodological tracks and didactic processes suitable for each concept. Therefore, the mastery of knowledge and concepts and teaching practices increase scores of teachers' self-efficacy.
- Motivation factor, with 4 items strongly linked to the teachers' self-efficacy dimension (values between 0.59 and 0.80, is based on the ability of teachers to awaken the desire to learn in students (those

who demonstrate a certain demotivation stemming from learning difficulties, those who lack self-confidence, and those who are demotivated because of the heavy load of school work ...). Among the implications of the results related to this factor is the interest that should be taken by teachers, families and students themselves in motivation; indeed, it is highly recommended that these three actors must work on motivational strategies such as valuing efforts, promoting autonomy, cognitive stimulation, the use of rewards and the use of verbal praise and positive emulation (Brodeur & Vezeau, 2005).

- Coping factor, with 4 items strongly linked to the teachers' self-efficacy dimension (values between 0.69 and 0.81), is linked to the teachers' ability to cope with the various changes that may take place in their professional careers: change of curricula, change of the teaching paradigm, and change of teaching methods. This has a strong implication on the resistance that some teachers may show against any attempt to reform the education system, because the real increase in teachers' work in the face of a rapidly changing school and society intensifies and complicates their tasks, which implies that before any attempt at reform we must take into account the preparation as well as the motivation of teachers in order to initiate and motivate them morally and materially so that they become more committed and less resistant.

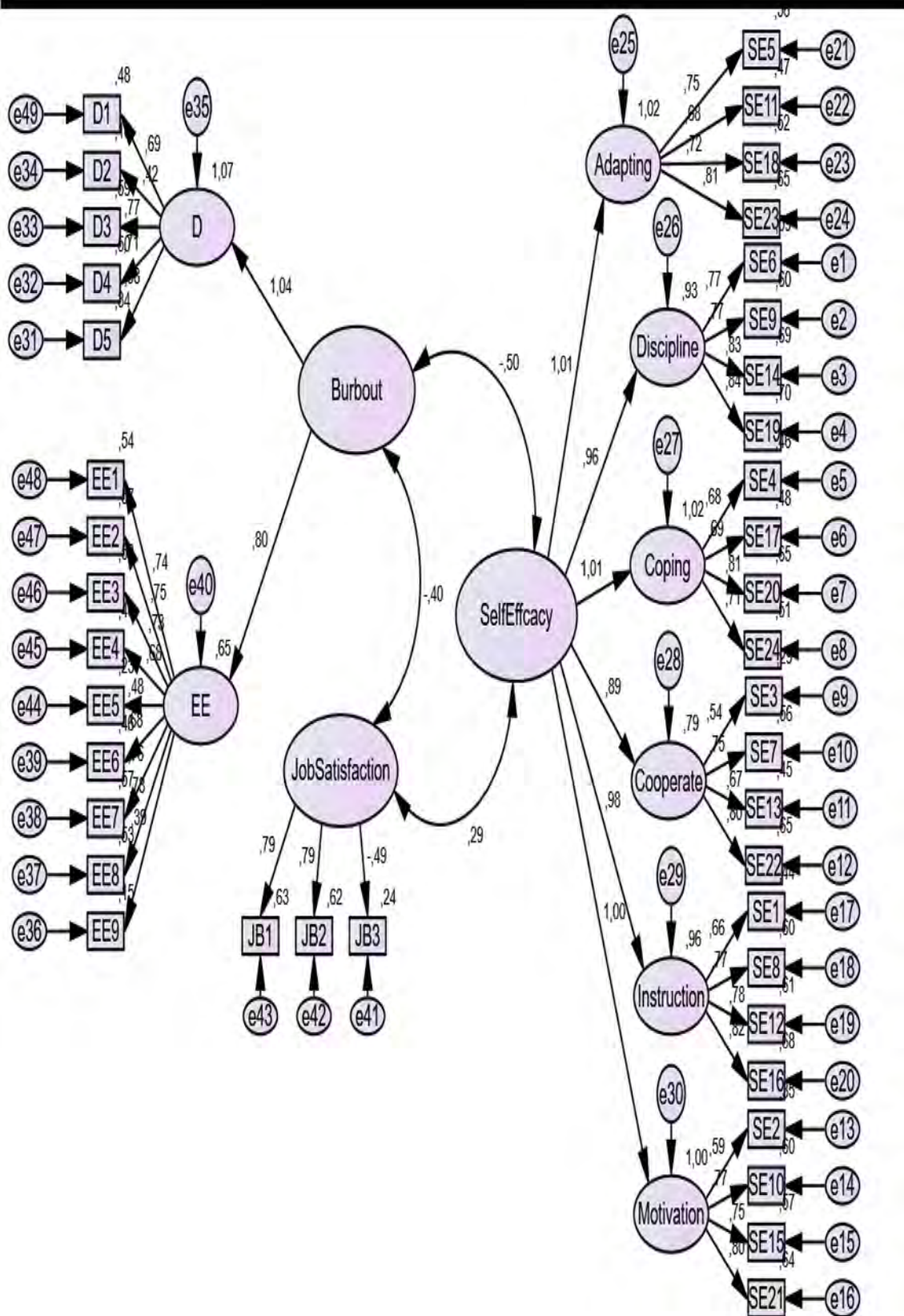


Fig. 5. Structural model of relations between teacher burnout, teacher self-efficacy and teacher job satisfaction.

- Discipline factor, with 4 items strongly linked to the teachers' self-efficacy dimension (values between 0.74 and 0.84), concerns the ability of teachers to master their class to maintain discipline among students and to guarantee them a climate conducive to learning. Discipline also depends on how teachers manage their class, i.e. how they ensure respect for class rules, organization of student participation methods, their reaction to student behavior in general and disruptions in particular, focused on the way in which teachers keep learners on task, and how they, keep their pupils learning activities. Teachers should ensure that class time is devoted exclusively to learning activities and, to this end, should take measures to help students become active as long as possible.

6.2. The structure of MBI

Concerning the MBI, the results confirmed the two-dimensional structure of the scale in accordance with the structure used by certain studies (Skaalvik & Skaalvik, 2010) The two validated dimensions, namely emotional exhaustion and depersonalization, have very good internal reliability (with Alphas de Cronbach respectively .81 and .70) in addition to their strong correlation (0.84) which shows that they are very good predictors of the construct of burnout among teachers:

- Emotional exhaustion, with 9 items strongly linked to the teacher burnout dimension (with values ranging from 0.39 to 76), reflects the degree of psychological pressure that the teachers undergo while practicing their profession, a pressure that causes stressful and tiring sensations (emotional emptying, fatigue, crunch, disappointment, stress ..) and ultimately is likely to lead to emotional exhaustion proper.
- depersonalization, with 4 items strongly linked to the dimension (with values ranging from 0.43 to 78) reveals to us the degree of indifference and carelessness towards others as a result of the pressure from their work. Therefore, it is recommended that teachers deal with the problem of emotional exhaustion and depersonalization consciously in collaboration with the decision-makers and those responsible for human resources in education; an interest which should accompany teachers throughout their professional life especially through the integration of initial or continuing training modules to equip them with skills to manage situations of stress, depression and carelessness towards others (Esteve & Fracchia, 1988). In addition, it is advisable to set listening monitoring cells that provide psychological support to teachers in order to reduce the psychological effects of their work and to deal with risk factors that could lead them to burnout.

6.3. The structure of JGS

For the structure of "JGS" we eliminated the third item from the original structure since the results of our study confirmed that the third item is not a good predictor for measuring job satisfaction among teachers as the latter item measures the intention to leave the teaching profession and introduces this intention as an element to measure job satisfaction. While some teachers surveyed are not satisfied with their work they do not intend to quit and this is very much worse because it will certainly have a big effect on their performance. For the other two items, they are strongly correlated to the dimension (with values ranging from 0.75 to 0.84) Items which relate to the love and attachment of teaching towards one's profession are good predictors for measuring job satisfaction.

6.4. The structural model of the study

The second objective of our study was to reveal possible correlations between the three latent variables of our study; indeed, our model (Fig. 5) reveals the significance of these correlations: an average negative

correlation between burnout on the one hand and personal self-efficacy (-.50) and job satisfaction (-.40) on the other hand, as well as a weak positive correlation between personal self-efficacy and job satisfaction (0.29).

The presence of these correlations leads us to have a systemic vision of the psychological health of teachers by adopting support and training programs that can touch the three components at the same time.

7. Conclusion

Even if this study is the first to have attempted to explore the psychological dimensions of teachers' burnout in Moroccan by testing the validity of three measurement scales, it has certain limits, in particular:

- ✓ The limited geographical area of the study as we were only satisfied with a sample of primary school teachers from a small town (El Kalaa Des Srahna) in Morocco due to the lack of funding for the study.
- ✓ The neglect of the individual (age, gender, etc.) and professional (seniority, working environment, etc.) characteristics of the surveyed teachers as variables which could largely affect the results of the study.

To overcome these limitations and other shortcomings of this study, we suggest future comparative research on larger samples by studying different levels of education (preschool, primary, college, secondary and even university) to study the variables of this study, as well as the exploitation of the effect of individual variables and context variables and we encourage future research also to examine the mediating and indirect variables which can influence the structure of the structural model of the study as well as the intensity of co-correlations between latent variables.

CRedit authorship contribution statement

Oulhou Hassan: Conceptualization, Methodology, Software, Data curation, Writing – original draft, Visualization, Investigation. **Aomar Ibouk:** Supervision, Validation.

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