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**EXAMINING THE CONSTRUCT VALIDITY OF BURNOUT SCALE
USING CONFIRMATORY FACTOR ANALYSIS**

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ABSTRACT

Many teachers find the demand of their job stressful to the extent that they show symptoms such as reduced performance, lack of attention towards the task, low commitment and low job satisfaction. The results of teacher stress can lead to burnout. This study was conducted to test the construct validity of the Burnout Scale. Therefore, the main objective of this study was to assess the goodness of fit of the measurement model of the Burnout Scale using confirmatory factor analysis (CFA). The Burnout Scale consists of three dimensions, namely emotional exhaustion, depersonalization, and reduced personal accomplishment. The study was conducted on 11 religious schools located in the North, East, South, Middle West of South Sulawesi, Indonesia comprising a total of 339 teachers who participated in the study. However, examination with the normality data showed that only 208 respondents were used as samples. The results of the study showed that the hypothesized measurement model of burnout did not show satisfactory goodness-of-fit of the model with the data, with the values obtained: $\chi^2 = 656.986$, CFI = 0.843, GFI = 0.828, TLI = 0.823, RMSEA = 0.080. The measurement model thus has to be revised. Results of the revised model showed a better fit, with $\chi^2 = 115.400$, CFI = 0.949, GFI = .931, TLI = 0.929, RMSEA = 0.060.

Keywords: burnout; confirmatory factor analysis (CFA); emotional exhaustion; depersonalization; reduced personal accomplishment

INTRODUCTION

Research on emotional exhaustion emerged from Maslach's (1982) influential model of burnout. Burnout can be described as a chronic state of exhaustion to long term stress with individuals involved in human service professions as teachers. Although the reasons may differ, all teachers experience stress in their work. The stressors may include students with behavioral problems, problems in the parent-teacher relationship, conflict with colleagues, or having to organize teaching in new way as a consequence of working in teams or because of school reform programs. In the teaching profession, burnout may contribute to and result from both poor classroom climate and school disorganization. Most teachers cope successfully with such stress, for

example through active problem solving, social and emotional support from colleagues, reorganizing the teaching situation, cooperating with parents, or changing their teaching strategy. However, burnout may be the end point of unsuccessful coping strategy. Various studies have been carried out in Western countries and Europe, and also in Africa and Asia. In general, those who study the subject of teachers take on the study of teachers in public schools. Most of the study found that teachers who experience burnout due to their inability to control the enormous amount of work (work overload) and time. As a result they suffer from emotional exhaustion marked by declining energy or chronic fatigue. Consequently, they show negative feelings and cynicism towards students and colleagues, and blaming others for their low work performance. High levels of teacher burnout have also been associated with experiencing stressors and perceiving high job demands and low control in their careers (Betoret, 2009), as well as low job performance, frequent absence and turnover (Burke, Greenglass & Schwarzer, 1996).

The Burnout Scale will be tested using confirmatory factor analysis to see its construct validity construct. Therefore, two objectives of this research are: (1) to examine the construct validity of the Burnout Scale using confirmatory factor analysis (CFA), and (b) to assess the reliability of the Burnout Scale.

DEFINITION OF BURNOUT

The term burnout was developed by Freudenbergh (1974; in Cooper, et al, 2002) from observations about the psychological fatigue often experienced by workers in the field of services. Since then, there is an increase in research on emotional exhaustion associated with the job. Burnout is defined by Freudenberger and Richelson (1981) as a form of individual circumstances affecting fatigue because a person does not successfully attain what he or she expects. Burnout is a phenomenon associated with the job and this sets it apart with psychological concepts such as stress, chronic fatigue syndrome and stress (Casserley & Megginson, 2009).

Specific definition given by Pines and Aronso (1989) state that burnout is the physical fatigue in the form of physical pain and physical energy, mental exhaustion, depersonalization and emotional exhaustion associated with marked feelings of helplessness. This is supported by Leatz and Stolar (1993) who say that burnout is physical fatigue, mental and emotional stress experienced that lasts in a long time with a situation that demands a high emotional involvement and high standards of personal success. According to Greenberg and Baron (2000), burnout causes emotional exhaustion, fatigue and physical exhaustion, decrease in the attitude, and reduced sense of achievement in a career (low feeling of accomplishment).

Maslach and Jackson (1981) put forward the definition of burnout as a syndrome suffered from feelings of low, medium and high continuously, containing three subscales which include: emotional exhaustion of feeling dry and tired, depersonalization (loss of sense of reality of themselves) such as treating students as goods or non-human, and low personal accomplishment such as feeling useless, ineffective and incapable.

Therefore, teacher burnout is a negative stress response in the form of teaching job which has been done in a long time, due to involvement in demanding interpersonal situations and

inability to control it, experiences of emotional exhaustion, the loss of sense of self and a lower reality of personal accomplishment.

Maslach, Jackson and Leiter (1996) and Greenberg and Baron (2000) state that there are three dimensions of burnout, namely: (a) emotional exhaustion marked by feeling tired when emotional resources are diminished and teachers cannot share physical and emotions with the students; (b) depersonalization, which is shown with a feeling of indifference or negative attitudes towards others in the workplace. In other words, individuals withdraw from the social environment, do not care about the environment and other individuals in the vicinity, such as having a cynical attitude towards students, parents of students and officers; and (c) reduced personal accomplishment, which is described as a declining work ability and inability to overcome them, such as feeling no time to assist the growth or development of the students.

This is not much different from the views of Pines and Aronso (1989), who suggest that there are three aspects of burnout, namely: (a) fatigue, which is physical fatigue that is of a physical nature and physical energy indicated by headache, fever, back pain, susceptibility to disease, muscle strain neck and shoulder, often exposed to colds, insomnia, nausea, irritability, and changes in eating habits. While physical energy is characterized by low energy, continuous fatigue and drowning; (b) emotional exhaustion is related to feelings of fatigue such as personal despair, irritability, stress and helplessness; and (c) mental fatigue is a concern of low self-efficacy and depersonalization which is characterized by feelings of worthlessness, incompetence, and dissatisfaction with the job.

Generally burnout occurs for individuals at workplace. They will be surprised when it is not within the expectations and reality until it can be concluded that the dimensions of burnout is emotional exhaustion, depersonalization and reduce personal accomplishment. Based on the definitions discussed, Maslach and Jackson (1981, 1986) propose the multidimensional theory of burnout which consists of three components namely, emotional exhaustion, depersonalization and reduced personal accomplishment (Maslach; in Cooper et al., 2002). Based on this theory, burnout is an individual stress experienced within the context of complex social relations that covers the individual and other individuals.

MATERIALS AND METHOD

The participants in this study were 339 teachers who were employed in the senior high school or Madrasah Aliyah Negeri of South Sulawesi selected using stratified random sampling because the population is not homogeneous and stratified by proportion (Sugiono, 2009). After analysis of normality, only 208 respondents were used as samples. All the teachers come from North, East, West, South and in the Middle area of South Sulawesi.

The Burnout Scale was used in this research was developed by Maslach, Jackson and Leiter (1996) comprising 22 items and measuring three dimensions which are: emotional exhaustion contains 9 items, depersonalization with 5 items, and reduced personal accomplishment containing 8 items. The responses use seven point Likert scale with 0=Never to 6=Every day. The result of convergent validity was 0.50 ($p < 0.01$) with reliability test, Cronbach's alpha of 0.76. The data were analyzed using confirmatory factor analysis (CFA) with AMOS 5 program.

RESULTS AND DISCUSSION

The result of this study showed that the hypothesized measurement model of burnout, where the latent variables are formed by three dimensions with emotional exhaustion containing 9 items, depersonalization containing 5 items, and reduced personal accomplishment containing 8 items. Figure 1 and Table 1 showed the Chi Square = 656.986, CMIN/df = 3.19, CFI = 0.84, GFI = 0.83, TLI = 0.82, and RMSEA = 0.08. The data revealed that the fit statistics for the measurement model did not fulfill the requirement of the conventional standards for CFI and TLI (Byrne,2001), however the GFI and RMSEA fit the model. Results of reliability analysis showed that alpha Cronbach for emotional exhaustion was 0.79, depersonalization= 0.74, and reduced personal accomplishment= 0.78. The alpha Cronbach for all items was 0.81. Although the results of reliability analysis were satisfactory, the model has to be revised as the goodness-of-fit indices did not fulfill the conventional standards.

Table 1: Results of goodness-of-fit indices of the measurement model of burnout

Indices	Recommended	Model
Model chi-square	> 0.05	656.986
CMIN/df	< 5.0	3.19
GFI	> 0.90	0.83
CFI	> 0.90	0.84
TLI	> 0.90	0.82
RMSEA	< 0.08	0.08

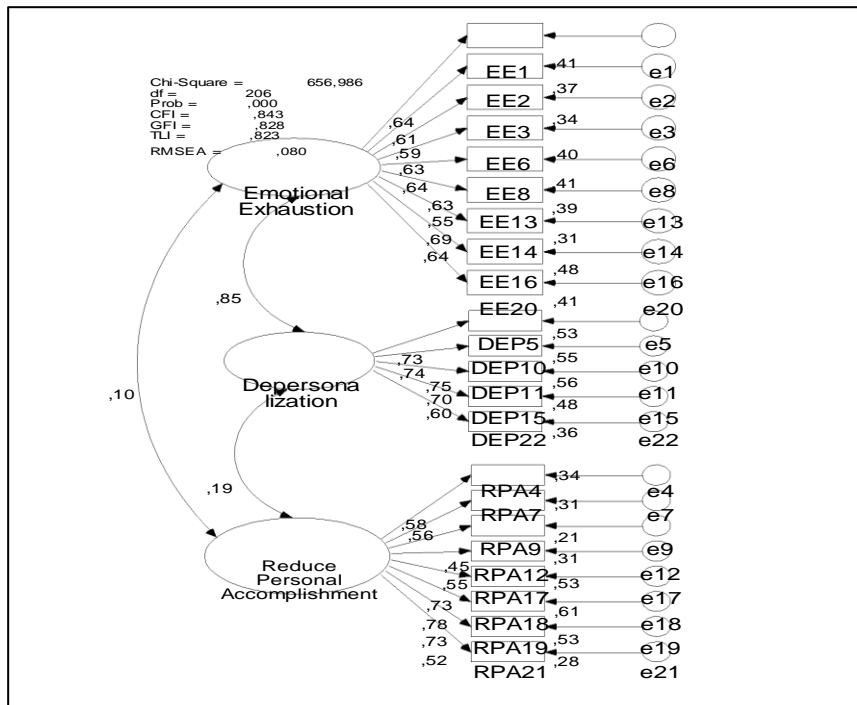


Figure 1: The results of the hypothesized measurement model of burnout

The revision of the model was done using modification indices (MI) (Kline, 2005; Byrne, 2001). Several error variances were correlated as suggested by modification indices such as e1 and e2, e1 and e8, e2 and e3, e2 and e8, and e4 and e7, which indicated that these items are strongly related with each other. Two error variances for emotional exhaustion items e8 and reduced personal accomplishment e21 were also correlated to indicate some similarities between these two items. The items are EXHA8 “I feel burnout from my work ” and RPA21 “In my work, I deal with emotional problems very calmly”.

In addition, modification indices also suggested that several error variances were correlated with its latent variables such as e2, e6 and e8 indicating its validity in measuring the latent variable. Results of the revised model also showed that all five items that measured depersonalization were eliminated. This is due to the fact that the correlations of the latent variable depersonalization with emotional exhaustion and reduced personal accomplishment yielded negative and non-significant results.

Results of the revised measurement model (Figure 2) showed a better fit model, with Chi-Square = 115.400; CMIN/df = 1.75, CFI = 0.95; GFI = 0.93; TLI = 0.93; and RMSEA = 0.06. After the modification process, the revised model provided a better fit as shown in Table 2 and Figure 2. The results of reliability analysis also showed satisfactory reliability with emotional exhaustion= 0.77, reduced personal accomplishment= 0.80, and all items= 0.78

Table 2: Results of goodness-of-fit indices of the revised measurement model of burnout

Indices	Hypothesis Model	Revised Model Analysis of BO
Chi Square	656.986	115.400
CMIN/df	3.189	1.75
P	.000	.000
CFI	.83	.95
GFI	.84	.93
TLI	.82	.93
RMSEA	.08	.06

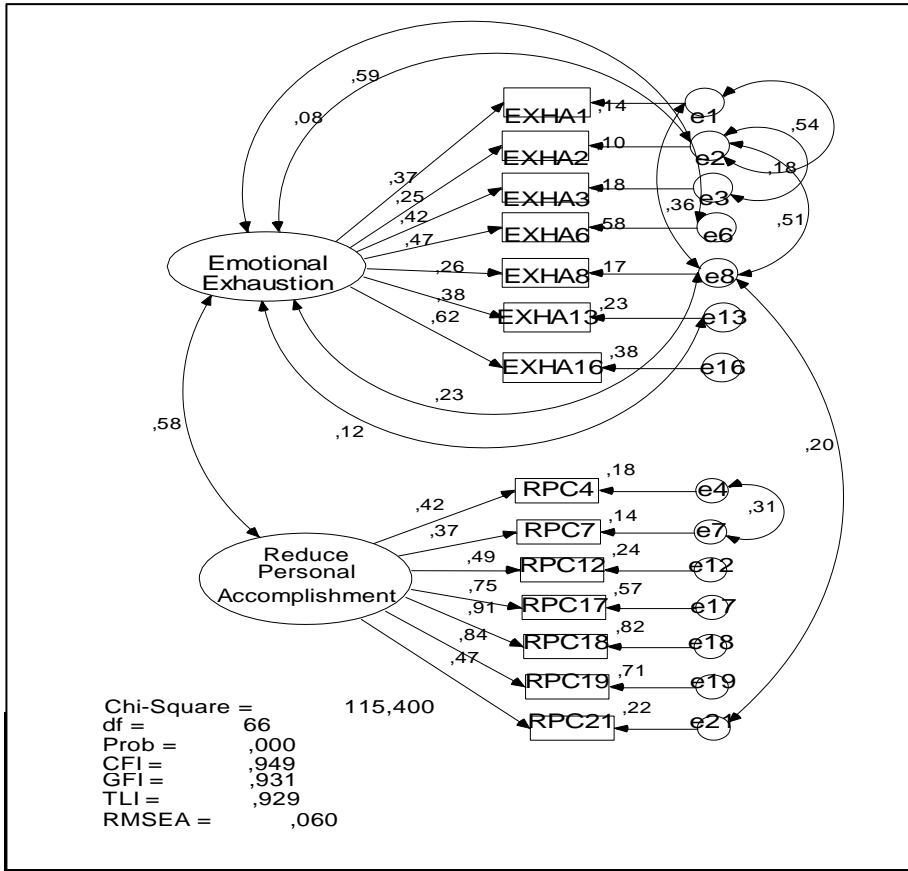


Figure 2: The results of the revised measurement model of burnout

The study showed that the revised model gave an indication of the availability of the model fit which form two dimensions of burnout variable. This showed that teachers in religious schools were able to work with each other, and able to pay attention to each other outside of the task to be their responsibility. This may be due to the influence of culture in South Sulawesi which believes that work starts with good intentions, and thus their work is often based on the desire to achieve success together. However, the dimension of depersonalization and its items were eliminated and they are: DEP5 “I treat some students as if they where impersonal „objects””, DEP10 “I have become more careless toward people since I took this job”, DEP11 “I worry that this job is hardening me”, DEP15 “I don’t relly care what happen to some students” and DEP22 “I feel my students blame me for some of their problems”. It is caused by the value in the relationships among configuration errors form a negative value. Similarly, analysis of covariance decision between e10 with emotional exhaustion showed a negative value, so the dimension of depersonalization disposed to get a model fit of burnout CFA.

Teachers do experience emotional exhaustion, shown with feelings of emotionally overburdened and have fewer available resources in coping. This is due to excessive work and individual conflict in the workplace. The teachers feel emotionally drained of resources and they lose energy to deal with other individuals. Meanwhile reduced personal accomplishment refers to the decreased feelings of capability and productivity in work. This is related to the stress and the inability to overcome dependency on employment. This can be exacerbated by the loss of social support and the opportunity to grow professionally.

CONCLUSION

This study aimed to validate the Burnout Scale and results showed that the hypothesized measurement model lacked fit with the data. While the results of the revised measurement model showed a better fit with the elimination of the depersonalization dimension. It can be concluded that only two dimensions (emotional exhaustion and reduced personal accomplishment) with 14 items have good construct validity. The results of reliability analysis were also satisfactory for both dimensions and all items. Thus it can be concluded that the scale is suitable to be used in the local context.

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